Volume V (Part 1)
RECIRCULATED PORTIONS OF THE DRAFT ENVIRONMENTAL IMPACT REPORT
State Clearinghouse No. 2009061113

LYTLE CREEK RANCH SPECIFIC PLAN

Lead Agency:
City of Rialto
Development Services Department
150 South Palm Avenue
Rialto, California 92376

February 2012

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Annexation No. 170
General Plan Amendment No. 29
Specific Plan No. 12
Development Agreement
Vesting Tentative Tract Map No. 18767
Environmental Assessment Review No. 90-19

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February 2012

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1.0 INTRODUCTION

1.1 Purpose

The City of Rialto (City), as lead agency, prepared this document, entitled Recirculated Portions of the Draft EIR (RPDEIR), to analyze the potential environmental impacts of the Lytle Creek Ranch Specific Plan project (LCRSP or Project) under the California Environmental Quality Act (CEQA). The City prepared this RPDEIR in accordance with the San Bernardino County Superior Court's ruling (referred to herein as the Court Ruling), dated September 30, 2011, which granted in part and denied in part the Petition for Writ of Mandate in Case No. CIVDS 1011874, *Endangered Habitats League, et al. v. City of Rialto, et al*. A copy of the Court Ruling is provided in Appendix V-A.[1]

The Court Ruling held that the Environmental Impact Report (EIR) (SCH No. 2009061113) for the Project, certified by the City on July 13, 2010, and consisting of the Draft EIR (DEIR) and the Final EIR (FEIR), failed to comply with CEQA because: (1) it did not provide substantial evidence to support the conclusion that impacts related to global climate change, specifically greenhouse gas (GHG) emissions, would be less than significant; (2) it improperly assessed the Project's traffic impacts against future conditions as opposed to existing conditions; (3) the mitigation measures with respect to seismic hazards (Mitigation Measures 3-1 to 3-3) and fire protection impacts (Mitigation Measures 9-4 to 9-5) constituted improperly deferred mitigation; and (4) the analyses of Habitat Avoidance Alternative 1 (Avoidance of San Bernardino Kangaroo Rat/Least Bell's Vireo Occupied Habitat, referred to as HAA1 in the Court Ruling) and Habitat Avoidance Alternative 2 (Avoidance of Riversidian Alluvial Fan Sage Scrub Areas, referred to as HAA2 in the Court Ruling) did not provide substantial evidence to support the significance conclusions, the findings regarding economic infeasibility, or the findings regarding the extent to which the Project objectives would be met. The Court denied the Petition for Writ of Mandate regarding: (1) the threshold of significance used to evaluate potential biological resources impacts on the San Bernardino Kangaroo Rat (SBKR); and (2) the analysis of Project consistency with jobs/housing goals set forth by the Southern California Association of Governments (SCAG), as required by the State CEQA Guidelines Section 15125(a).

The Court Ruling ordered the City "to revise the EIR with respect to the GHG emissions discussion, traffic impact analysis, Mitigation Measures 3.1 to 3.3 and 9.4 to 9.5, and alternatives HAA1 and HAA2 and recirculate those portions of the EIR." Accordingly, this RPDEIR, which revises the aforementioned portions of the EIR, is prepared in compliance with CEQA Guidelines Section 15088.5.[2] This document does not revise the EIR in any respect other than as directed by the Court, as the Court Ruling upheld all other aspects of the EIR. As the RPDEIR is limited to a few portions of the EIR, pursuant to CEQA Guidelines Section 15088.5, subdivision (c), the DEIR and FEIR are not being recirculated for public review and comment.

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[1] Appendix V-A contains the October 7, 2011 Judgment in the *Endangered Habitats League, et al. v. City of Rialto, et al.* case, and the Court Ruling is attached to the Judgment.

[2] The CEQA Guidelines can be found in the California Code of Regulations, Title 14, §§ 15000 *et seq.*

The discussions which follow adhere to the general document structure and sequence presented in the EIR, and is based on a simple format in which each individual portion of the EIR deemed inadequate by the Court Ruling is presented, with appropriate responsive discussion and/or analysis. In the event that this RPDEIR is approved by the City, it will become Volume V of the EIR. The analysis in this document relies on all relevant information in the EIR, its appendices, and other sources identified in Volume I, Section 9.0, References, of the DEIR, as well as the new or additional sources of information identified herein.

This document has been made available for public review and comment in accordance with the procedures contained in the Notice of Availability. Written comments may be submitted to the City of Rialto Development Services Department—Planning & Business License Division, 150 South Palm Avenue, Rialto, CA 92376, via fax to (909) 873-4814, or via email to ggibson@rialtoca.gov. As CEQA Guidelines Section 15088.5, subdivision (f)(2) permits, the City requests reviewers to limit the scope of their comments to that material which is addressed within the text of the revised portions and the appendices included in this RPDEIR. The City also requests that reviewers not make new comments on old matters not included in this RPDEIR. Responses to all comments received during the review period regarding the environmental analysis in this RPDEIR will be provided in a separate document – a Revised Final EIR (Revised FEIR). Pursuant to CEQA Guidelines Section 15088.5, subdivision (f)(2)(ii), written responses will be prepared only to comments received regarding this RPDEIR.

The Revised FEIR will provide the basis for City decision-makers to consider the environmental implications of the Project as well as possible ways to mitigate any significant environmental impacts. Prior to making a decision on the Project, the City must certify that the Revised FEIR has been completed in compliance with CEQA, was presented to the City's decision-making body and that the decision-making body reviewed and considered the information contained in the Revised FEIR prior to approving the Project, and that the Revised FEIR reflects the lead agency's independent judgment and analysis.

1.2 Project Summary

The Project involves the adoption and implementation of the proposed Lytle Creek Ranch Specific Plan for an approximately 2,447.3-acre area, approximately 694.2 acres of which are located within the City of Rialto and approximately 1,753.1 acres of which are currently located in unincorporated San Bernardino County (County), within the City's adopted Sphere of Influence. The LCRSP, in combination with a development agreement/pre-annexation agreement between the City and the Applicant, would guide land use and development of the Project site. The LCRSP would: authorize the development of up to 8,407 dwelling units and 849,420 gross leasable square feet of general and specialty commercial, office, business park, light industrial and manufacturing, warehouse and distribution center, and other similar uses (excluding institutional, educational, recreational, and infrastructure-related uses); allow for the retention of a substantial portion of the Project site for open space and conservation purposes; create diverse opportunities for a range of public, semi-public, and private recreational facilities; and promote the development of associated public improvements, public works, and infrastructure facilities.

Implementation of the LCRSP would result in a master-planned community consisting of four separate and distinct neighborhoods comprised of a total of 103 planning areas (PAs). Future

development within those neighborhoods upon Project build-out (2030) is summarized in Table 1-1 (Land Use Summary by Neighborhood) on page 1-4, and each of the four neighborhoods is briefly described below. Please refer to Figure 1-1 (Conceptual Land Use Plan) on page 1-5 for a map of the neighborhoods and the associated land uses designated therein.

- **Neighborhood I:** Neighborhood I would comprise approximately 417.2 acres. The primary land use in Neighborhood I would be single-family residential, in addition to open space. A portion of this neighborhood, commonly referred to as Sycamore Creek East (Sycamore Flat) and Sycamore Creek West (Sycamore Canyon), is located within the boundaries of the 3,400-acre County-approved Glen Helen Specific Plan (GHSP). The remaining land is located within the boundaries of County-approved Lytle Creek North Planned Development Project (LCNPD or Tract 15900). Upon approval of the LCRSP and annexation of these areas into the City, the LCRSP would supersede the GHSP and LCNPD with respect to these areas. The PAs that would be removed from those County-approved plans include, but may not be limited to: (1) PAs 1-15, as illustrated in the proposed LCRSP; and (2) PAs 1-7, 14, and a portion of PA 13, as illustrated in the approved LCNPD.

- **Neighborhood II:** Neighborhood II is planned as a gated, active adult community on approximately 801.8 acres and would include the entire 221-acre City-approved El Rancho Verde Specific Plan (ERVSP) area and the El Rancho Verde Royal Vista Golf Course. In addition to open space, the primary land uses in this neighborhood would be single-family residential, multi-family residential, and commercial. Portions of Neighborhood II contain a Single Family Residential Overlay (SFR Overlay) and a High Density Residential Overlay (HDR Overlay).[3] If approved, the permitted land uses and related plans and policies presented in the LCRSP would supersede those contained in the ERVSP. Areas to be removed from the adopted ERVSP include a portion of PA 95 and all of PAs 96-103 of the proposed LCRSP.

- **Neighborhood III:** Neighborhood III is located south of the Interstate 15 (I-15) Freeway and would primarily include a mix of single-family and multi-family residential uses, school sites, and commercial development on approximately 968.8 acres. Portions of Neighborhood III contain a SFR Overlay and Park Overlay.

- **Neighborhood IV:** Neighborhood IV would consist primarily of multi-family residential and commercial development on 259.5 acres located north of the I-15 Freeway.

Three of the proposed neighborhoods (Neighborhoods I, III, and IV) would include housing designed to attract a variety of households, preferences, and lifestyles. As previously described, the fourth neighborhood (Neighborhood II) would be built as a gated, age-qualified community for residents age 55 and older. More than half of the overall Project site area would be preserved or retained as open space.

[3] The land uses permitted within an overlay district may be developed in lieu of the underlying land use designation.

Table 1-1
Land Use Summary by Neighborhood

Neighborhood[1]	Approximate Acreage	Estimated Average Product Density (DU/ac)	Dwelling Units	Square Footage	Assumptions
I	417.2	—	1,278	—	—
II	801.8	—	2,931	102,452	Active Adult
III	968.8	—	3,329	566,279	—
IV	259.5	—	869	180,689	—
Total	**2,447.3**	**3.44**	**8,407**	**849,420**	**—**

Notes:

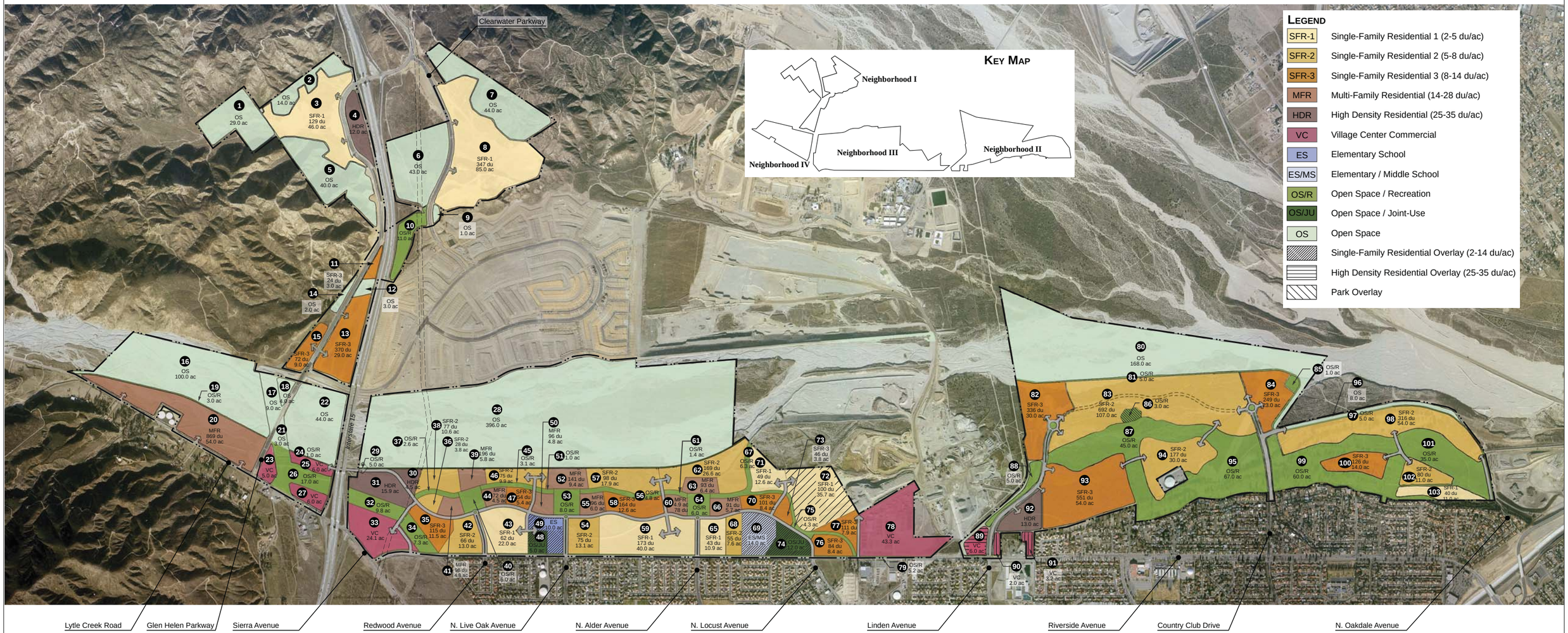
1. Each of the four neighborhoods include numerous smaller planning areas. Other than the City of Rialto General Plan designation of Specific Plan that would encompass the entire LCRSP area, no single land use designation is proposed for an entire neighborhood. As proposed, each of the Project's 103 planning areas would have area-specific residential, non-residential, and/or conservation-based land use designations, defining the general nature and character of the use(s) authorized therein. Individual neighborhoods may, therefore, contain separate planning areas with residential land use designations ranging from Single-Family Residential 1 (SFR 1) (2-5 dwelling units/acre) to High Density Residential (HDR) (25-35 dwelling units/acre).

Source: Lytle Development Joint Venture III.

The LCRSP requires that the sitewide gross density cannot exceed 3.5 dwelling units per acre. If all of the proposed 8,407 dwelling units are constructed, the maximum amount of Village Center Commercial development permitted within the Specific Plan area cannot exceed 849,420 square feet of retail uses. The LCRSP does not specify maximum allowable floor areas for the proposed institutional, educational, recreational, and infrastructure-related uses, and as such, the EIR assumes acreage totals for each such use for evaluation purposes. To allow the Lead Agency and other responsible agencies the ability and the flexibility to determine actual facility sizes with identified needs, design requirements, and other factors, the maximum square footage for those uses can exceed the 849,420 square foot limitation imposed on Village Center Commercial development. Please refer to Table 1-2 (Conceptual Land Use Plan Summary) on page 1-6 for a breakdown of proposed development by use.

The LCRSP includes the concept of a vehicular "trip budget" as the basis for allowing needed development flexibility within the Specific Plan area while ensuring that the resulting development does not exceed the assumptions upon which the environmental analysis provided within the EIR is based. The trip budget establishes trip caps which offer both the Applicant and local officials the flexibility to vary the amount of floor area for each specific land use developed within the limits of that budget and allows market forces to dictate how and where within the site the trips would ultimately be generated. The LCRSP permits the Village Center Commercial floor area maximum to exceed 849,420 square feet of retail uses, provided, however, that a corresponding decrease occurs in the permitted dwelling units such that the established trip caps are met.

Under the LCRSP, transfers of dwelling units would be permitted within and between any of the residential PAs within Neighborhoods I and IV (as well as PAs with a SFR Overlay and/or HDR Overlay), provided that the total number of projected morning (AM) plus evening (PM) vehicle trips per day for Neighborhoods I and IV do not exceed a combined total of 3,853 trips. Similarly, transfers of dwelling units would be permitted within and between any of the



Source: KTGY Group, Inc., 2010.

matrix environmental

Not to Scale

Figure 1-1

Conceptual Land Use Plan

Table 1-2
Conceptual Land Use Plan Summary

Land Use Designation	Density Range (DU/ac)	Target Dwelling Units (DU)	Medium Density (DU/ac)	Intensity (sf)	Acres	%
Residential	—	—	—	—	—	—
Single-Family Residential 1 (SFR 1)	2–5	943	3.6	—	263.2	10.8
Single-Family Residential 2 (SFR 2)	5–8	1,908	6.3	—	304.5	12.4
Single-Family Residential 3 (SFR 3)	8–14	2,403	10.9	—	220.0	9.0
Multi-Family Residential (MFR)	14–28	1,828	17.2	—	106.3	4.3
High-Density Residential (HDR)	25–35	1,325	29.2		45.4	1.9
Subtotals	—	*8,407*	*8.95*	—	*939.4*	*37.4*
Commercial/Retail	—	—	—	—	—	
Village Center Commercial (VC)	—	—	—	849,420[1]	95.6	3.9
Subtotal	—	—	—	*849,420*	*95.6*	*3.9*
Institutional	—	—	—	—	—	
Elementary School (ES)	2–14	As Transferred	—	—	10.0	<0.1
Elementary/Middle School (ES/MS)	2–14	As Transferred	—	—	14.0	<0.1
Subtotal[2]	—	*As Transferred*	—	—	*24.0*	*<0.1*
Open Space	—	—	—	—	—	
Open Space / Recreation (OS/R)	—	—	—	—	328.8	13.4
Open Space (OS)	—	—	—	—	908.0[4]	37.1
Open Space / Joint Use (OS/JU)[3]	—	—			17.0	<0.1
Subtotal	—	—	—	—	*1,253.8*	*51.2*
Other	—	—	—			
Roadways	—	—	—	—	134.5	5.5
Subtotal	—	—	—	—	*134.5*	*5.5*
Total	**—**	**8,407**	**3.44**	**849,420**	**2,447.3**	**100.0**

Notes:

1. Assumes 849,420 square feet of retail and service-oriented commercial and other non-residential land uses on 95.6 acres, representing a floor area ratio of approximately 0.20:1. This figure is not inclusive of institutional, educational, recreational, infrastructure-related, and other similar uses.
2. For the purpose of environmental analysis, school sites are assumed to comprise approximately 261,360 square feet of total building area. This estimate, as presented for the purpose of air quality assessment, is not intended to constitute a limit as to the maximum allowable size of on-site school facilities.
3. The Open Space/Joint Use (OS/JU) area is intended to be developed for joint use by the City and the Rialto Unified School District. These joint-use school/park facilities are anticipated to contain athletic fields, playgrounds, and informal play areas, which will be available for use by the school, and also by the general public when the school is not using the facilities.
4. This total remains subject to refinement. The LCRSP requires that a minimum of 829.2 acres within the proposed LCRSP, including Lytle Creek Wash, will be preserved as natural (undisturbed) open space by clustering development along Riverside Avenue, Lytle Creek Road/Sierra Avenues, Glen Helen and Clearwater Parkways, and the I-15 Freeway. While the actual acreage included within this natural open space may be adjusted to a limited degree as a result of future reconfiguration and refinement of individual neighborhoods and planning areas, in no event will the total acreage of natural (undisturbed) open space be less than 829.2 acres for the proposed LCRSP.

Source: Lytle Development Joint Venture III.

residential PAs in Neighborhoods II and III (as well as PAs with a SFR Overlay and/or HDR Overlay), provided that the total number of projected A.M. plus P.M. vehicle trips per day for Neighborhoods II and III do not exceed a combined total of 12,483 projected trips.

The EIR also analyzes certain off-site areas that are located outside the boundaries of the proposed LCRSP and would not be subject to its provisions but that are associated with infrastructure and related improvements that may be directly required for Project

implementation. The additional off-site areas addressed in this EIR total approximately 19.9 acres and include a utility easement, a County roadway for use as secondary access during construction, a road easement beneath the I-15 Freeway, levee improvements, and drainage improvements, as further described within Volume I of the EIR.

1.3 EIR Certification and Project Approvals

A Notice of Preparation (NOP) identifying the scope of environmental issues to be addressed in the EIR was issued on June 29, 2009, and a public scoping meeting was held on July 28, 2009, to solicit comments and questions regarding the scope of the EIR. The 30-day circulation and review period required under CEQA began on June 29, 2009, and concluded on July 28, 2009. The City of Rialto subsequently prepared a DEIR pursuant to CEQA, the State CEQA Guidelines, and the City of Rialto Guidelines for Implementing CEQA, and published the DEIR on February 26, 2010, at which time a Notice of Completion (NOC) of the DEIR was issued to the State Clearing House. A Notice of Availability (NOA) of the DEIR was published in the San Bernardino County Sun Newspaper on March 1, 2010, on which date the public comment period began, ending on April 15, 2010. Upon completion of the public comment period, the City prepared the FEIR, consisting of Responses to Comments on the DEIR, as well as changes, revisions, and other modifications to the DEIR and LCRSP.

On June 2, 2010, the City of Rialto Planning Commission conducted a duly noticed public meeting in accordance with the provisions of Government Code Section 65090 *et. seq.* and the City of Rialto Municipal Code (City Municipal Code). Based on existing evidence, facts, and oral testimony, the Planning Commission determined that the EIR was adequate and adopted Resolution No. 10-31. The Planning Commission also adopted Resolution Nos. 10-30, 10-32, 10-33, and 10-34, recommending that the City Council take various actions to approve the Project, including rescinding the ERVSP, and approving a general plan amendment, the LCRSP, and a pre-annexation and development agreement between the City and the Applicant.

Subsequently, the City Council considered the EIR, including the Responses to Comments, Statement of Overriding Considerations (SOC), Findings of Fact, and the Mitigation Monitoring and Reporting Program (MMRP), for the proposed Lytle Creek Ranch Specific Plan at a regularly scheduled public hearing on June 22, 2010. On July 13, 2010 the City adopted Resolution No. 5862 certifying the EIR, adopting the SOC and Findings of Fact, and approving the MMRP.

On July 27, 2010, the City Council took the following additional actions:

- Approval of Ordinance No. 1468 rescinding the El Rancho Verde Specific Plan;
- Approval of Ordinance No. 1469 approving General Plan Amendment No. 29;
- Approval of Ordinance No. 1470 approving Lytle Creek Ranch Specific Plan No. 12; and
- Approval of Ordinance No. 1471 approving the Pre-Annexation and Development Agreement.

1.4 CEQA Litigation and Preparation of the RPDEIR

On August 26, 2010, Endangered Habitats League, Inc. and Save Lytle Creek Wash filed a Petition for Writ of Mandate and Complaint for Declaratory Relief (Petition) in the San Bernardino County Superior Court, challenging the City's approval of the Project under CEQA (Case No. CIVDS 1011874, *Endangered Habitats League, et al. v. City of Rialto, et al*.). On September 30, 2011, the Court issued the Court Ruling, finding that the City did not comply with CEQA in approving the Project, granting in part and denying in part the Petition. The Court Ruling ordered the City to "set aside all of [the] approvals it made in approving this Project," and "to revise the EIR with respect to the GHG emissions discussion, traffic impact analysis, Mitigation Measures 3.1 to 3.3 and 9.4 to 9.5, and alternatives HAA1 and HAA2 and recirculate those portions of the EIR."

On October 7, 2011, the Court issued a Writ of Mandate and Judgment. The Writ of Mandate obligated the City to set aside its certification of the EIR, its adoption of the Findings of Fact, SOC, and MMRP, its approval of the Project under the above-referenced ordinances. On November 22, 2011, the City Council approved Ordinance Nos. 1492, 1493, 1494, and 1495, which rescinded Ordinance Nos. 1469, 1470, 1470, and 1471, respectively, and thus vacated the City's approvals of the Project, as well as Resolution No. 6060, which decertified the EIR, and set aside the City's adoption of the Findings of Fact, SOC, and MMRP. On December 27, 2011, the City Council held a second reading of and adopted Ordinance Nos. 1492, 1493, 1494, and 1495. Upon consideration of the revisions to the EIR required by the Court Ruling and set forth in this RPDEIR, the City may reconsider the Project for approval.

Pursuant to CEQA Guidelines Section 15088.5, subdivision (g), Section 2.0 of this RPDEIR contains the following revised and updated portions and/or sections to be recirculated for public comment:

(1) Revised greenhouse gas (GHG) emissions and climate impact analysis.

(2) Revised traffic analysis reflecting the opinion in *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351.

(3) Revised Mitigation Measures 3-1 to 3-3, proposed to mitigate the Project's potentially significant seismic impacts to less than significant levels.

(4) Revised Mitigation Measures 9-4 to 9-5, proposed to mitigate the Project's potentially significant fire protection impacts to less than significant levels.

(5) Revised alternatives analysis for Habitat Avoidance Alternative 1 (Avoidance of San Bernardino Kangaroo Rat/Least Bell's Vireo Occupied Habitat or "HAA 1") and Habitat Avoidance Alternative 2 (Avoidance of Riversidian Alluvial Fan Sage Scrub Areas or "HAA 2").

2.0 REVISIONS TO EIR IN RESPONSE TO THE COURT RULING

2.1 Revised GHG Emissions and Climate Impact Analysis

This section has been revised in accordance with the Court's Ruling, in particular to demonstrate more clearly how the Project's greenhouse gas (GHG) inventory represents a 32.6 percent reduction in GHG emissions over a Business as Usual (BAU) scenario. This section has not been revised to reflect the various changes that have occurred with respect to the regulation of GHG emissions, including: (1) the adoption of amendments to the State CEQA Guidelines in 2010 for the analysis and mitigation of a project's GHG emissions; (2) the enactment of Senate Bill (SB) 2X; and (3) the California Air Resources Board's (CARB) reduced estimate of emissions expected to occur in 2020 under a BAU scenario. None of these changes affect the analysis or conclusions set forth in the DEIR. Most notably, the amendments to the CEQA Guidelines give lead agencies the discretion to decide what threshold of significance it will apply in assessing impacts resulting from a project's GHG emissions. In addition, this revised section does not reflect newer emissions calculation methods introduced since certification of the EIR. Thus, this revised section serves only to further clarify how the 32.6 percent reduction set forth in the certified EIR was calculated as required by the Court.

The following section is based on the *Revised Climate Change Technical Report for Lytle Creek* Ranch prepared by ENVIRON (2011) for the Lytle Creek Ranch Specific Plan Environmental Impact Report. The full text of the report is included as Technical Appendix V-B of this document. The analysis in this section addresses the effect of the Project on global climate change.

2.1.1 Regulatory and Policy Setting

The following information presents a general discussion of certain statutes, regulations, and related policies that may be applicable to an understanding of the Project's regulatory setting.

2.1.1.1 United States

Greenhouse Gas Emissions and Global Climate Change

- **National Policy**. With regard to GHG emissions and global climate change, in 2002, President George W. Bush set a national policy goal of reducing the GHG emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the nation's economy by 18 percent by 2012. No binding reductions were, however, associated with the goal; rather, the United States Environmental Protection Agency (USEPA) administers a variety of voluntary programs and partnerships with GHG emitters in which the USEPA partners with industries producing and utilizing synthetic GHGs to reduce emissions of these particularly potent GHGs. The United States has instead opted for a voluntary and incentive-based approach toward GHG emissions reductions, identified as the Climate Change Technology Program (CCTP), in lieu of the Kyoto Protocol's mandatory framework. CCTP is a multi-agency research and development coordination effort, led by the Secretaries of Energy and Commerce.

In September 2006, the United States Department of Energy (USDOE) released the "Climate Change Technology Program Strategic Plan," which organizes federal spending for climate technology research, development, demonstration, and deployment to reduce GHG emissions and increase economic growth.

On April 24, 2009, the USEPA issued a proposed endangerment finding, stating that high atmospheric levels of GHGs "are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes." The USEPA further found that "atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act." The finding itself does not impose any requirements on industry or other entities. The public comment period for this proposed endangerment finding ended June 23, 2009, and the finding is now under final review.[4]

- **United States Supreme Court.** In April 2007, the United States Supreme Court (Massachusetts et al. v. United States Environmental Protection Agency et al.) ruled that the federal Clean Air Act (CAA) authorizes the USEPA to regulate carbon dioxide (CO_2) emissions from new motor vehicles. The court did not mandate that the USEPA enact regulations to reduce GHG emissions but found that the only instances where the USEPA could avoid taking action were if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change.

- **Energy Independence and Security Act of 2007.** In response to the April 2007 Massachusetts v. USEPA ruling, the Bush Administration issued an executive order on May 14, 2007, directing the USEPA , the United States Departments of Transportation (USDOT), and the USDOE to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. On December 19, 2007, the Energy Independence and Security Act of 2007 (H.R. 6; Pub. L. 110-140) (EISA) was signed into law, which requires an increased corporate average fuel economy (CAFE) standard of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020. The National Highway Traffic Safety Administration (NHTSA) is directed to phase-in requirements to achieve this goal. Analysis by CARB suggests that this will require an annual improvement of approximately 3.4 percent between now and 2020.[5]

  The Energy Independence and Security Act of 2007 (EISA) requires establishment of interim standards (from 2011 to 2020) that will be the "maximum feasible average fuel economy" for each fleet. On October 10, 2008, the National Highway Traffic Safety Administration (NHTSA) released a final environmental impact statement analyzing proposed interim standards for model years 2011 to 2015 passenger cars and light trucks. NHTSA issued a final rule for model year 2011 on March 23, 2009.[6]

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[4] United States Environmental Protection Agency website, Climate Change (www.epa.gov/climate-change/endangerment.html).

[5] California Air Resources Board website, Comparison between Pavley Assembly Bill 1493 and the Federal 2007 CAFE Standards (www.arb.ca.gov/cc/ccms/ab1493_v_cafe_study.pdf).

[6] National Highway Traffic Safety Administration website, Laws/Regulations/Guidance (www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.43ac99aefa80569eea57529cdba046a0/).

In addition to setting increased CAFE standards for motor vehicles, the EISA included other provisions: (1) renewable fuel standard (RFS) (Section 202); (2) appliance and lighting efficiency standards (Section 301–325); and (3) building energy efficiency (Sections 411-441). Additional provisions addressed energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The proposed federal standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles built in model years 2012-2016. If finalized, the proposed rule would surpass the 2007 CAFE standards and require an average fuel economy standard of 35.5 mpg in 2016. On May 22, 2009, the USDOT and USEPA issued a notice of upcoming joint rulemaking.[7,8]

In furtherance of the May 2009 announcement, on September 15, 2009, President Obama proposed new fuel efficiency standards for cars and trucks. As proposed, fuel economy would be required to increase by 5 percent annually. In 2016, new cars and trucks would have to achieve an average rating of 35.5 mpg, four years sooner than the law now requires. Alternatively, manufacturers could meet this requirement if their vehicles, on average, emit no more than 250 grams of CO per mile.[9]

California has petitioned the USEPA to allow more stringent standards and California executive agencies have repeated their commitment to higher mileage standards. On June 30, 2009, beginning with the 2009 model year, the USEPA granted the State a waiver of CCA preemption for its GHG emission standards for motor vehicles.[10] As part of that waiver, the USEPA specified that the CARB may not hold a manufacture liable or responsible for any noncompliance caused by emission debits generated by a manufacture for the 2009 model year.

- **The Consolidated Appropriations Act of 2008.** The United States Congress passed The Consolidated Appropriations Act of 2008 (HR 2764) in December 2007, which includes provisions requiring the establishment of mandatory GHG reporting requirements. The measure directs USEPA to publish draft rules by September 2008 and final rules by June 2009 mandating reporting "for all sectors of the economy." As of the time of release of this document, the USEPA has not developed draft rules as directed by the act but states that the proposed rule is currently in interagency review. The act also directs the USEPA to determine what reporting thresholds to use.

  On December 7, 2009, the USEPA signed the following two findings regarding GHGs under Section 202(a) of the CAA: (1) Endangerment finding—the USEPA finds that the current and projected concentrations of the following six "well-mixed greenhouse gases" in the atmosphere threaten the public health and welfare of current and future

[7] United States Environmental Protection Agency website (http://yosemite.epa.gov/opa/admpress.nsf/6fa790d452bcd7f58525750100565efa/ 451902cb77d4add5852575bb006d3f9b!OpenDocument).

[8] National Highway Traffic Safety Administration website, Laws/Regulations/Guidance (www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.43ac99aefa80569eea57529cdba046a0/).

[9] Fahrenthold, David A. and Eilperin Juliet, White House is Prepared to Set First National Limits on Greenhouse Gases, Washington Post website, September 16, 2009 (www.washingtonpost.com/wpdyn/content/article/2009/09/15/AR2009091503146_pf.html).

[10] 74 FR 32744 (July 8, 2009).

generations: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6); and (2) Cause or contribute finding—the USEPA finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.[11] These findings do not explicitly impose any requirements on industry or other entities but do serve as a prerequisite to finalizing the USEPA's proposed GHG emission standards for light-duty vehicles, as jointly proposed by the USEPA and the United States Department of Transportation's National Highway Safety Administration on September 15, 2009.

2.1.1.2 State of California

- **Executive Order S-3-05.** Under Executive Order S-3-05, as signed by Governor Arnold Schwarzenegger on June 1, 2005, the following GHG emission reduction targets were established for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels. In March 2006, the California Environmental Protection Agency (CalEPA) published a Climate Action Team (CAT) report detailing how State agencies could meet the 2010 and 2020 goals. As indicated therein, among the policy actions that are cited are "smart land use and intelligent transportation." The CAT states that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/ commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. "Intelligent transportation systems" is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and service.[12]

- **Executive Order S-1-07.** On January 18, 2007, Governor Schwarzenegger signed Executive Order S-1-07, establishing a Low Carbon Fuel Standard (LCFS). The LCFS mandates that by 2020, fuel providers (including refiners, blenders, producers, and importers) must reduce their average carbon intensity by 10 percent. This reduction is expected to result in replacement of 20 percent of on-road gasoline consumption with lower-carbon fuels and will lead to the addition of seven million alternative fuel or hybrid vehicles on California roads.

- **Western Climate Initiative.** On February 26, 2007, the governors of the States of Arizona, California, New Mexico, Oregon, and Washington, later joined by the State of Utah and the Canadian Provinces of British Columbia and Manitoba, created the Western Climate Initiative (WCI) with a long-term commitment to significantly reduce regional GHG emissions, thus lowering the risk of dangerous threats to climate change. As part of this commitment, the members of the WCI agreed to establish a western regional reduction goal by the end of August 2007 and design a multi-sector market-

[11] United States Environmental Protection Agency, Docket ID No. EPA-HQ-OAR-2009-0171, December 7, 2009.

[12] California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 58.

based mechanism, such as a load-based cap-and-trade program, by the end of August 2008. On August 22, 2007, the members of the WCI agreed to a regional goal to reduce GHG emissions to 15 percent below 2005 levels by 2020. The WCI's regional goal does not serve to replace or supersede the goals set by individual states and provinces.[13]

- **Assembly Bill 1493.** Assembly Bill 1493 (Pavley), adopted September 2002, requires the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. Although setting emission standards on automobiles is solely the responsibility of the USEPA, the CAA Act allows California to set state-specific emission standards on automobiles if the state first obtains a waiver from the USEPA.

- **California Health and Safety Code.** The California Global Warming Solutions Act of 2006 (AB 32), codified in Section 38500 et seq. of the H&SC, establishes a comprehensive program to reduce GHGs by 2020 and identifies several major requirements that the CARB is required to implement, including: (1) the adoption and implementation of a list of discrete and early action GHG[14] reduction measures; (2) approval of a Statewide1990 emission level that becomes the Statewide 2020 emissions limits; (3) adoption of mandatory GHG reporting rules for significant GHG sources; and (4) adoption of emission regulations to achieve the maximum technologically feasible and cost-effective reductions.

  AB 32 commits the State to achieving the following: (1) 2000 GHG emission levels by 2010 (which represents an approximately 11 percent reduction from "business-as-usual");[15] and (2) 1990 levels by 2020 (approximately 28.5 percent below "business-as-usual"). To achieve these goals, AB 32 mandates that the California Air Resources Board establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

  By January 1, 2008, the CARB was directed to create a carbon dioxide (CO_2) emissions inventory. The CARB was instructed to begin with sources or categories of sources that contribute the most to Statewide emissions. By January 1, 2008, CARB must establish the 1990 CO_2 emission levels from the State.[16] The statute requires CARB to reach the 1990 baseline through limits on sources and categories of sources primarily responsible for GHG emissions. An advance set of GHG emission reduction measures was required

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[13] Western Climate Initiative, Press Release: Western Climate Initiative Members Set Regional Target to Reduce Greenhouse Gas Emissions—Eight States, Provinces Agree to Reduce Emissions by 15 Percent below 2005 Levels by 2020, August 22, 2007.

[14] As defined in Section 38505 of the H&SC, greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6).

[15] The CARB defines "business-as-usual" as emissions in the absence of any GHG reduction measures discussed in the "Climate Change Scoping Plan."

[16] As required, CARB shall determine the Statewide GHG emission levels in 1990 and to approve a Statewide GHG emissions limit, equal to that level, to be achieved by 2020. CARB staff is recommending approval of 427 million metric tonnes of carbon dioxide equivalent ($MMTCO_2e$) as the total Statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit (Source: California Air Resources Board, Staff Report—California 1990 Greenhouse Gas Emissions Level and 2020 Emission Limit, November 16, 2007, p. i).

no later than June 30, 2007.[17] These "early action" measures must then be incorporated into regulations no later than January 1, 2010.[18,19]

As indicated by CARB: "The Statewide 1990 greenhouse gas emissions level of 427 $MMTCO_2e$ [million metric tonnes of carbon dioxide equivalent] is based on the net amount of greenhouse gas emitted to and removed from the air. The gross Statewide emissions in 1990 were 433 $MMTCO_2e$ with forestry sinks offsetting approximately 7 $MMTCO_2e$, resulting in net emissions to the atmosphere of approximately 427 $MMTCO_2e$). The 1990 emissions level is a compilation or inventory of the amount and type of greenhouse gases emitted by different sources on an annual basis."[20]

In October 2008, the CARB, in coordination with the Climate Action Team (CAT), published a draft scoping plan[21] outlining the State's strategy to achieve the 2020 GHG emissions limit. The draft scoping plan outlined a strategy for reducing the State's carbon footprint. Reducing GHG emissions to 1990 levels means cutting approximately 28.5 percent from the "business-as-usual" (BAU) emission levels projected for 2020.

As noted in the CARB's functional equivalent document, the draft scoping plan included a recommended measure to establish a process whereby regions in California integrate development patterns, transportation networks, and other transportation measures and policies in a way that achieves GHG emission reductions. Shifting land-use patterns can improve transportation and build on successful planning processes that integrate sustainable community principals. Land-use considerations are, however, determined by local governments and no land use or planning requirements are mandated or altered by the proposed measure.[22]

On December 11, 2008, the CARB approved a "Climate Change Scoping Plan" (Resolution 08-47), as required by Global Warming Solutions Act of 2006 (AB 32). The plan proposes a "comprehensive set of actions designed to reduce overall carbon greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[23] The plan indicates that "reducing greenhouse gas emissions to

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[17] California Air Resources Board, Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration, October 2007.

[18] CARB is also directed to develop a scoping plan for meeting the requirement of reducing greenhouse gas emissions to 1990 levels. This plan is to be developed in consultation with other State agencies, including the CPUC. This plan must be approved no later than January 1, 2009. Based on this plan, CARB is to promulgate a broader set of measures by January 1, 2011, in order to achieve the requisite reductions. The statute leaves it open to CARB whether the reductions will be achieved through source category limits or whether the plan could include a market-based trading program. The statute requires the CARB to establish de minimis thresholds for GHG emissions below which emission reduction requirements would not apply.

[19] On October 18, 2006, Governor Schwarzenegger issued Executive Order S-20-06, ordering State agencies to develop market-based compliance mechanisms for GHG reduction, consistent with AB 32, concurrent with regulatory measures.

[20] California Air Resources Board, Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, November 16, 2007, p. 2.

[21] California Air Resources Board, Climate Change—Proposed Scoping Plan, A Framework for Change, October 2008.

[22] California Air Resources Board, Climate Change—Proposed Scoping Plan, A Framework for Change, California Environmental Quality Act Functional Equivalent Document, October 2008, p. J-54.

[23] California Air Resources Control Board, Climate Change Proposed Scoping Plan, California Air Resources Board, October 2008 (www.arb.ca.gov/cc/scopingplan/document/draftscopingplan.pdf).

1990 levels means cutting approximately 28.5 percent from business-as-usual emission levels projected for 2020."

The "Climate Change Scoping Plan" calls for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions will be addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard, and greater consideration to reducing trip length and generation through land-use planning and transit-oriented development. Buildings, land use, and industrial operations will be encouraged and, sometimes, required to use energy more efficiently. Utility energy supplies will change to include more renewable energy sources through implementation of the renewable portfolio standard (RPS).[24] This will be complemented with emphasis on local generation, including rooftop photovoltaics and solar hot water installations.

Additionally, the plan emphasizes opportunities for households and businesses to save energy and money through increasing energy efficiency. The plan indicates that substantial savings of electricity and natural gas will be accomplished through improving energy efficiency. The "Climate Change Scoping Plan" identifies a number of specific issues potentially relevant to the Project including:

◊ Regulation of landfills, motor vehicles, refrigerants, and roofing materials.

◊ The potential of using the green building framework as a mechanism that could enable GHG emissions reductions in other sectors (i.e., electricity, natural gas), noting that green buildings "exceed minimum energy-efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable and low-emitting materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health and minimize impacts to the environment."

◊ The importance of increasing the supply and utilization of green power and lower carbon intensity energy sources. Broadly defined, this includes implementation of the utility-based RPS, use of solar hot water heating (pursuant to the SB 1470 goal), support for the Million Solar Roofs Program (including the California Solar Initiative and the New Solar Homes Partnership), and increased use of combined heat and power.

◊ The importance of supporting the Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff.

◊ Encouraging local governments to set quantifiable emissions reduction targets for their jurisdictions and use their influence and authority to encourage

[24] The State's renewable portfolio standard (RPS) program was established in 2002 under Senate Bill 1078 and requires retail suppliers of electric services to increase procurement for eligible renewable energy resources up to 20 percent by 2017. In 2006, SB 107 advanced the 20 percent deadline to 2010, a goal that was expanded to 33 percent by 2020 in the 2005 "Energy Action Plan II." These mandates apply directly to investor-owned utilities; however, publicly owned utilities have agreed to voluntarily meet the 20 percent goal.

reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

- **California Government Code.** Senate Bill 375 (Chapter 728, Statutes of 2008), among other things, amended Section 65080 of the CGC to require that the regional transportation plan for those regions of the State with a metropolitan planning organization (MPO) adopt a sustainable communities strategy (SCS) as part of its regional transportation plan (RTP), designed to achieve certain goals for the reduction of GHG emissions from automobiles and light trucks in a region. This requires the CARB, working in consultation with the MPOs, to provide each affected region with GHG emission reduction targets for the automobile and light truck sector for 2020 and 2035 by September 30, 2010, to appoint a regional targets advisory committee to recommend factors and methodologies for setting those targets, and to update those targets every eight years.

  SB 375 requires that certain transportation planning and programming activities by the MPOs be consistent with the SCS contained in the RTP. Certain transportation projects programmed for funding on or before December 31, 2011 are not, however, required to be consistent with the SCS process. To the extent the SCS is unable to achieve the GHG emission reduction targets, the bill requires affected MPOs to prepare an alternative planning strategy (APS) to the SCS showing how the targets would be achieved through alternative development patterns, infrastructure or additional transportation measures or policies. The bill requires the CARB to review each MPO's SCS and APS determine whether the strategy, if implemented, would achieve the GHG emission reduction targets.

- **California Code of Regulations.** Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, CCR). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy-efficiency technologies and methods. On April 23, 2008, the California Energy Commission (CEC) adopted the "2008 Building Efficiency Standards for Residential and Nonresidential Buildings—Regulations/Standards"[25,26] (2008 Energy-Efficiency Standards) and the Building

[25] California Energy Commission, 2008 Building Efficiency Standards for Residential and Nonresidential Buildings—Regulations/Standards, CEC-400-2008-001-CMF, December 2008; California Energy Commission, Reference Appendices for the 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, CEC-400-2008-004-CMF, December 2008, revised June 2009.

[26] The CEC adopted the 2008 changes to the previous "2005 Building Efficiency Standards for Residential and Nonresidential Buildings—Regulations/Standards" (2005 Energy-Efficiency Standards) for a number of specified reasons, including: (1) to provide California with an adequate, reasonably priced, and environmentally sound supply of energy; (2) to respond to AB 32 (Global Warming Solutions Act of 2006) which mandates that California must reduce its GHG emissions to 1990 levels by 2020; (3) to pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs; (4) to act on the findings of California's "Integrated Energy Policy Report" that standards are the most cost effective means to achieve energy efficiency, expects the building energy-efficiency standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the standards in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions; (5) to meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy-efficiency measures into updates of state building codes; and (6) to meet the Executive Order in
(Footnote continued on next page)

Standards Commission approved them for publication on September 11, 2008. The effective date for the 2008 Energy-Efficiency Standards is January 1, 2010. The requirement for when the 2008 standards must be followed is dependent on when the application for the building permit is submitted. If the application is submitted on or after January 1, 2010, the 2008 standards must be met.

The 2008 Energy-Efficiency Standards authorizes locally adopted energy standards (Section 10-106). As authorized therein: "Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs provided that the Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Part 6. Such local standards include, but are not limited to, adopting the requirements of Part 6 before their effective date, requiring additional energy conservation measures, or setting more stringent energy budgets."[27]

The 2006 "Appliance Efficiency Regulations" (Title 20, Sections 1601 through 1608), dated December 2006, were adopted by the California Energy Commission (CEC) on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated and non-federally regulated appliances.

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

- **Senate Bills 107 and 1078.** The California renewable portfolio standard (RPS) program was established in 2002 under Senate Bill 1078 and requires retail suppliers of electric services to increase procurement for eligible renewable energy resources up to 20 percent by 2017. In 2006, Senate Bill 107 advanced the 20 percent deadline to 2010, a goal that was expanded to 33 percent by 2020 in the 2005 "Energy Action Plan II."[28] These mandates apply directly to investor-owned utilities; however, publicly owned utilities have agreed to voluntarily meet the 20 percent goal.

- **Senate Bill 1368.** Senate Bill 1368, a companion bill to the Global Warming Solutions Act of 2006 (AB 32), requires the California Public Utilities Commission (CPUC) and CEC to establish greenhouse gas emission performance standards for the generation of electricity. These standards will also generally apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting the CARB meet its mandate under AB 32. On January 25, 2007, the CPUC adopted an interim GHG emissions

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the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards (Source: www.energy.ca.gov/title24/2008standards/).

[27] *Ibid.*, Section 10-106, p. 10.

[28] California Energy Commission and California Public Utilities Commission, Energy Action Plan II—Implementation Roadmap for Energy Policies, September 21, 2005.

performance standard, which is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have GHG emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO_2 per megawatt-hour. On May 23, 2007, the CPUC adopted regulations establishing an identical emissions performance standard of 1,100 pounds of CO_2 per megawatt-hour (Order No. 07-523-7).

- **Senate Bill 97.** Senate Bill 97, passed in August 2007, is designed to work in conjunction with CEQA and AB 32. SB 97 requires the Governor's Office of Planning and Research (OPR) to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including but not limited to, effects associated with transportation and energy consumption. These guidelines must be transmitted to the Resources Agency by July 1, 2009, to be certified and adopted by January 1, 2010. OPR and the Resources Agency shall periodically update these guidelines to incorporate new information or criteria established by the CARB. SB 97 will apply retroactively to any EIR, negative declaration, mitigated negative declaration, or other document required by CEQA which has not been finalized.[29]

  OPR released a technical advisory on addressing climate change on June 19, 2008. This guidance document outlines suggested components to CEQA disclosure: quantification of GHG emissions from a project's construction and operation; determination of significance of the project's impact to climate change; and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

- **Senate Bill 375.** Senate Bill 375 was signed into law by the Governor on September 30, 2008. This legislation links regional planning for housing and transportation with the GHG reduction goals outlined in the Global Warming Solutions Act of 2006 (AB 32). Reductions in GHG emissions would be achieved through transit-oriented developments that locate housing closer to jobs, retail, and transit. Under the bill, each MPO would be required to adopt a sustainable community strategy to encourage compact development so that the region will meet a target, created by CARB, for reducing GHG emissions.

- **California Environmental Quality Act.** Senate Bill 97, which added Sections 21083.05 and 21097 to CEQA and which was signed by the Governor on August 24, 2007, requires OPR to prepare, develop, and transmit (by July 1, 2009) to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including effects associated with transportation or energy consumption. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010.

  On June 19, 2008, OPR published a technical advisory, entitled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act

[29] Under SB 97, transportation projects funded under the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 and projects funded under the Disaster Preparedness and Flood Prevention Bond Act of 2006 are exempted from analyzing the effects of greenhouse gases in an EIR, negative declaration, mitigated negative declaration, or other CEQA document.

Review"[30] (OPR Advisory). This guidance, which is purely advisory, proposes a three-step analysis of GHG emissions:

◊ **Mandatory quantification of GHG project emissions.** The environmental impact analysis must include quantitative estimates of a project's GHG emissions from different types of air emission sources. These estimates should include both construction-phase emissions, as well as completed operational emissions, using one of a variety of available modeling tools.

◊ **Continued uncertainty regarding "significance" of project-specific GHG emissions**. Each EIR should assess the significance of the project's impacts on climate change. The OPR Advisory recognizes uncertainty regarding what GHG impacts should be determined to be significant and encourages agencies to rely on the evolving guidance being developed in this area. According to the OPR Advisory, the environmental analysis should describe a "baseline" of existing (pre-project) environmental conditions and then add project GHG emissions on to this baseline to evaluate whether impacts are significant.

◊ **Mitigation measures.** According to the OPR Advisory, "all feasible" mitigation measures or project alternatives should be adopted if an impact is significant, defining feasibility in relation to scientific, technical, and economic factors. If mitigation measures cannot sufficiently reduce project impacts, the agency should adopt whatever measures are feasible and include a fact-based statement of overriding considerations explaining why additional mitigation is not feasible. OPR also identifies a menu of GHG emissions mitigation measures, ranging from balanced mixed-use master-planned project designs to construction equipment and material selection criteria and practices.

In addition, the OPR Advisory contains more general policy-level guidance, encouraging agencies to develop standard GHG emissions reduction and mitigation measures. The OPR Advisory directs the CARB to recommend a method for setting the GHG emissions threshold of significance, including both qualitative and quantitative options.

2.1.1.3 County of San Bernardino

The following information presents a general discussion of certain County statutes, regulations, and policies that may be applicable to an understanding of the Project's regulatory setting. A portion of the Project is currently within the jurisdiction of the County but, as proposed, will be annexed into the City. Should any portion of the Project site remain in the County or until such time as annexation to the City occurs, the County General Plan and County Development Code policies and ordinances will continue to apply.

San Bernardino County Superior Court Case No. CIVSS 700329. In April 2007, the California Attorney General brought a challenge to the County's General Plan FPEIR, alleging that the County violated CEQA because it "failed to fully evaluate and disclose the reasonably foreseeable effects of the General Plan update on global warming" and "failed to consider and

[30] Governor's Office of Planning and Research, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review, June 19, 2008 (http://opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf).

adopt appropriate mitigation." In its General Plan FPEIR, the County did not quantify GHG emissions associated with the General Plan update. The Attorney General alleged that the County's approval would aggravate climate change by increasing vehicle miles traveled, increasing consumption of fossil fuel-based energy, and developing forested and vegetated land that currently sequesters carbon. In particular, the Attorney General criticized the County for failing to compare "the increases in greenhouse gas emissions that are reasonably expected to result from implementation of the General Plan update and the reductions in greenhouse gas emissions mandated by AB 32."

In August 2007, the Attorney General and the County entered into a settlement agreement that requires the County to prepare an amendment to its General Plan Update calling for the adoption of a Greenhouse Gas Emissions Reduction Plan (GHG ERP). This GHG ERP must inventory the County's GHG emissions as of 1990, as of the notice of preparation for the General Plan Update EIR, and as of 2020 (which will include GHG emissions arising from development under the General Plan Update). The county must also set a target for reducing GHG emissions, and adopt feasible reduction measures to meet this target.

2.1.2 Environmental Setting

2.1.2.1 Regional Setting

Global Climate Change

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in average temperature of the Earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere. GHGs are those compounds in the Earth's atmosphere that play a critical role in determining the Earth's surface temperature. GHGs allow high-frequency solar radiation to enter the Earth's atmosphere but trap the low frequency, long-wave energy which is radiated back from the Earth to space, resulting in a warming of the atmosphere. The Earthward movement of this long-wave radiation is known as the "greenhouse effect."

Studies indicate that the effects of global climate change may include rising surface temperatures, loss of snow pack, sea level rise, more extreme heat days per year, and more drought years.[31] Understanding of the fundamental processes responsible for global climate change has improved over the past decade and predictive capabilities are advancing. However, there remain scientific uncertainties surrounding the response of the Earth's climate system to combinations of changes, particularly at regional and local scales. Consequently, the scientific community has systematically developed a range of scenarios that are based on ensembles of computer programs, model parameters, climatic processes, and social and economic responses. The result is a range of potential future conditions for key variables, such as peak

[31] Existing climate change models also show that climate warming portends a variety of impacts on agriculture, including loss of microclimates that support specific crops, increased pressure from invasive weeds and diseases, and loss of productivity due to changes in water reliability and availability.

summer temperature, the occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inherent uncertainty in the future actions of human beings, predictions of future climatic conditions will always include a range of possible outcomes.

The World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in 1988 in order to provide an authoritative, international consensus of scientific opinion on climate change. In February 2007, the IPCC reported: "Global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years. Carbon dioxide is the most important anthopogenic greenhouse gas. The global atmospheric concentration of carbon dioxide has increased from a pre-industrial value of about 280 ppm [parts per million] to 379 ppm[32] in 2005. The atmospheric concentration of carbon dioxide in 2005 exceeds by far the natural range over the last 650,000 years (180 to 300 ppm) as determined by ice cores. The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use, with land use change providing another significant but smaller contribution."[33]

The IPCC concluded that "[c]ontinued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would very likely be larger than those observed during the 20th century."[34]

In August 2007, international climate talks held under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) led to the official recognition by the participating nations that global emissions of GHG needed to peak in the next 10 to 15 years and must then be reduced to very low levels. According to the "Ad Hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol," avoiding the most catastrophic events forecast by the United Nations Intergovernmental Panel on Climate Change (IPCC) would entail emissions reductions by industrialized countries in the range of 25 to 40 percent below 1990 levels. Because of the Kyoto Protocol's Clean Development Mechanism, which gives industrialized countries credit for financing emission-reducing projects in developing countries, such an emissions goal in industrialized countries could ultimately spur efforts to cut emissions in developing countries, as well.[35]

As indicated in the IPCC's "Climate Change 2007: The Physical Science Basis—Summary for Policymakers": "The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use, with land use change

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[32] ppm or p.p.m. (parts per million) is the ratio of the number of greenhouse gas molecules to the total number of molecules of dry air (e.g., 300 ppm = 300 molecules of a greenhouse gas per million molecules of dry air).

[33] Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis—Summary for Policymakers, February 2007, p. 2.

[34] Ibid., p. 10.

[35] United Nations Framework Convention on Climate Change, Press Release—Vienna UN Conference Shows Consensus on Key Building Blocks for Effective International Response to Climate Change, August 31, 2007).

providing another significant but smaller contribution. Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea levels."[36] In response to the IPCC's publication" Energy Secretary Samual Bodman acknowledged that "[c]limate change is a global challenge that requires global solutions."[37]

Eleven of the 12 years between 1995 and 2006 ranked among the warmest years in the instrumental record of global surface temperatures (since 1850). Global average sea level has risen since 1961 at an average rate of 1.8 millimeters per year (mm/yr) and since 1993 at 3.1 mm/yr, with contributions from thermal expansion, melting glaciers and ice caps, and polar ice sheets. It is very likely that over the past 50 years, cold days, cold nights, and frost have become less frequent over most land areas and hot days and hot nights have become more frequent. Average Northern Hemisphere temperatures during the second half of the 20th Century were very likely higher than during any other 50-year period in the last 500 years and likely the highest in at least the past 1,300 years.[38] There is very high confidence that the net effect of human activities since 1750 has been one of warming. Most of the observed increase in globally averaged temperature since the mid-20th Century is very likely due to the observed increase in anthropogenic GHG concentrations.[39]

Changes in atmospheric concentrations of GHGs and aerosols, land cover, and solar radiation alter the energy balance of the climate system. Global GHG emissions due to human activities have grown since pre-industrial times, with an increase of 70 percent between 1970 and 2004. The annual emissions of carbon dioxide (CO_2) grew by about 80 percent between 1970 and 2004. Atmospheric concentrations of CO_2 and methane (CH_4) in 2005 exceed by far the natural range over the last 650,000 years. Global increases in CO_2 concentrations are due primarily to fossil fuel use, with land-use change providing another significant but smaller contribution. It is very likely that the observed increase in CH_4 concentration is predominantly due to agriculture and fossil fuel use.[40]

As reported by SCAG: "Global warming poses a serious threat to the economic well-being, public health and natural environment in southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea level, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases. Over the past few decades, energy intensity of the national and State economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO_2 emissions, California is second only to Texas in the nation and is the 12th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the

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[36] United Nations International Panel on Climate Change, Climate Change 2007: The Physical Science Basis—Summary for Policymakers, Fourth Assessment Report, February 5, 2007, pp. 2 and 5.

[37] United States Department of Energy, Press Release: Bush Administration Plays Leading Role in Studying and Addressing Global Climate Change, February 2, 2007.

[38] Intergovernmental Panel on Climate Change, Summary for Policymakers of the Synthesis Report of the IPCC Fourth Assessment Report, Draft November 16, 2007, p. 1.

[39] Ibid., pp. 4-5.

[40] Ibid.

State's population and economic activities, is also a major contributor to the global warming problem."[41]

With regard to public health, as reported by the Center for Health and the Global Environment at the Harvard Medical School, the following are examples of how climate change can affect cardio-respiratory disease: (1) pollen is increased by higher levels of atmospheric CO_2; (2) ground-level ozone or photochemical smog, which is the reaction of oxides of nitrogen (NO_X) and VOC and which are "tailpipe emissions," is temperature dependent (i.e., heat increases smog); ground-level ozone, which is also increased by higher levels of ultraviolet B radiation from stratospheric zone depletion, has been shown to cause asthma in children and to trigger attacks and causes increased morbidity and mortality in those with chronic obstructive pulmonary disease; (3) diesel exhaust particulates cause significant illness, especially when they are smaller than 10 microns in diameter and can bypass the lung's defense, and can clog airways and cause acute and worsen chronic, cardiovascular, and respiratory illness, help deliver pollen grains and molds deep into the lung, and cause lung cancer; (4) heat waves can result in temperature inversions, leading to trapped masses or unhealthy air contaminants by smog, particulates, and other pollutants; and (5) the incidence of forest fires is increased by drought secondary to climate change and to the lack of spring runoff from reduced winter snows; these fires can create smoke and haze which can settle over urban populations causing acute and exacerbating chronic respiratory illness.[42]

Greenhouse Gas Emissions

The six most globally important GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).[43] Some GHGs occur naturally in the atmosphere, while others result from human

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[41] Southern California Association of Governments, The State of the Region—Measuring Regional Progress, December 2006, p. 121.

[42] Epstein, Paul R. et al., Urban Indicators of Climate Change, Report from the Center for Health and the Global Environment, Harvard Medical School and the Boston Public Health Commission, August 2003, unpaginated.

[43] Section 38505(g) of the H&SC recognizes the six listed gases as greenhouse gases. Recently, some groups have advocated for the inclusion of "black carbon" in analyses of climate change under CEQA. Black carbon is a form of particulate air pollution that is most often produced from the burning of biomass, cooking with solid fuels, and diesel exhaust. Some studies have implicated black carbon as a source of global climate change; however, the potential impact of black carbon on climate change is currently under substantial dispute. Some studies indicate that less than 15 percent of the man-made portion of global warming is due to black carbon (Source: Jacobson, Mark Z., Effects of Black Carbon and Other Non-Kyoto Pollutants on Climate, Presentation to the Economic and Technology Advancement Advisory Committee California Air Resources Board, September 6, 2007). A high-end estimate indicates that black carbon could be responsible for 60 percent of the global warming. (Source: Ramanathan and Carmichael, Global and Regional Climate Changes Due to Black Carbon, Nature Geoscience, 2008).

Black carbon is not assessed in this report for the following reasons: (1) No regulatory authority has classified black carbon as a GHG and it is not regulated under AB 32 or any other law implemented to address global climate change; (2) Tools are not available to quantify black carbon emissions at this time (i.e., emissions factors for black carbon have not been published by the CARB, USEPA, or other reputable bodies; while some calculation methodologies have been postulated, the methodologies have not been confirmed by actual measurements of sources); and (3) No guidance on the importance, evaluation, or mitigation of black carbon has been provided by the agencies leading the climate change issue. The SCAQMD has not included black carbon in their discussion of GHG significance thresholds. There does not appear to be any guidance provided in recent guidelines released by OPR or the California Air Pollution Control Officers Association (CAPCOA) nor does black carbon appear to be addressed in current efforts to implement AB 32, the primary legislation designed to reduce California's impact on climate change. While the proposed project will generate some black carbon, the quantities are indeterminable at this time. The potential impact of the black carbon emissions on climate change is also unknown at this time.

activities. Naturally occurring GHGs include water vapor, carbon dioxide, methane, nitrous oxides, and ozone. Certain human activities add to the levels of most of these naturally occurring gases. CO_2 is released to the atmosphere when solid waste, fossil fuels, wood, and wood products are burned. CH_4 is emitted during the production and transport of coal, natural gas, and oil and results from the decomposition of organic wastes and the raising of livestock. N_2O is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuel. Other GHGs are not naturally occurring, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride which are generated in a variety of industrial processes. Each GHG differs in its ability to absorb heat in the atmosphere.[44]

Carbon dioxide is the most abundant GHG. As such, GHG emissions typically are measured in metric tonnes of "carbon dioxide equivalent" (CO_2e) units.[45] A "metric ton" is 1,000 kilograms (approximately 2,205 pounds). These gases have different potentials for trapping heat in the atmosphere, called "global warming potential" (GWP). When dealing with an array of emissions, the gases are often converted to their CO_2e for comparison purposes.[46] CO_2e represent the total impact (radiative forcing) of GHGs in the atmosphere, making it possible to determine the climate change of one GHG versus another. As established by the United Nations Intergovernmental Panel on Climate Change (IPCC) and the Bay Area Air Quality Management District, Table 2.1-1 on page 2-17 (Global Warming Potentials for Greenhouse Gases) shows GWP for different GHG for 100-year time horizon.[47]

As illustrated in Figure 2.1-1 on page 2-18 (California Air Resources Board—Sources of California GHG Emissions by End-User [1990 and 2004]) and shown in Table 2.1-2 on page 2-19 (2002–2004 Average Emissions and 2020 Projected Emissions [Business-as-Usual]),[48] total GHG emissions was estimated at 427 million gross tonnes of CO_2e[49] ($MMTCO_2e$) in 1990.[50] In 2004, California produced 468.6 $MMTCO_2e$ GHG emissions. The CARB also reports that the transportation sector is the largest emitter of GHG, emitting 179.3 $MMTCO_2e$ GHG or emissions roughly 38 percent of California's GHGs in 2004.[51,52]

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[44] Bay Area Air Quality Management District, Source Inventory of Bay Area Greenhouse Gas Emissions, November 2006, pp. 1-2.

[45] In this analysis, "tonnes" is used to refer to metric tonnes (1,000 kilograms) and "tons" is used to refer to short tons (2,000 pounds).

[46] The term "carbon dioxide equivalent" (CO_2e) is used to describe the ensemble of GHG gases that contribute to global warming, including CO_2, methane, nitrous oxides, and a class of gases called "high GWP gases." The term "high GWP gases" is applied to a series of gases used in industrial process, including HFCs, PFCs, and SF_6, which are used mainly as replacements for ozone-depleting industrial gases, as byproducts of manufacturing processes, for semiconductor manufacturing, and for electric power transmission and distribution switchyard gear. These non-CO_2 gases cause the atmosphere to heat (radiative forcing) at a faster rate than CO_2. To determine CO_2-equivalent of these non-CO_2 gases, CO_2 is given a weighting factor of 1.0 and the other gases are given a weighting factor that represents their rate of warming compared to CO_2. These weighting factors are called global warming potential (GWP) are usually based upon the impact of the subject gas estimated over a 100-year time period.

[47] California Air Resources Board, Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emission Limit, November 16, 2007.

[48] *Op. Cit.*, Climate Change—Proposed Scoping Plan, A Framework for Change, Table 1, p. 13.

[49] Gross emissions represent emissions without taking into account emissions reductions or sinks.

[50] The California Energy Commission (CEC) and the Climate Action Team (CAT) also produced estimates of the 1990 emission level based on the best available data at the time those estimates were made. While the numbers are similar, emissions from individual sources from individual sectors differ between the CARB and CEC by up to 30 percent due to updated data, methodologies, and differences in included and excluded emissions.

[51] *Op. Cit.,* Climate Change—Proposed Scoping Plan, A Framework for Change, p. 13.

Table 2.1-1
Global Warming Potentials for Greenhouse Gases

Greenhouse Gas	Global Warming Potential[1]
Carbon Dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous Oxide (N_2O)	310
Perfluorocarbons (PFCs)	6,500
Hydrofluorocarbons (HFCs)	
HFC-32	650
HFC-134a	1,300
HFC-125	2,800
HFC-143a	3,800
CF4	6,500
C2F6	9,200
HFC-23	11,700
Sulfur Hexafluoride (SF_6)	23,900

Notes:
1. Bay Area Air Quality Management District, Source Inventory of Bay Area Greenhouse Gas Emissions, November 2006, pp. 1-2.

Source: United Nations Intergovernmental Panel on Climate Change

As reported by CARB, the electricity generation sector was the next largest emitter of GHGs, emitting 109.6 $MMTCO_2e$ or roughly 23 percent of Statewide GHG emissions in 2004. Although electricity imported into California accounts for only about a quarter of the electricity, imports contribute more than half of the GHG emissions from electricity because much of the imported electricity is generated at coal-fired power plants.[53] Electricity generation was a relatively minor source of methane (CH_4) and nitrous oxide (N_2O). This sector uses sulfur hexafluoride (SF_6) as an electrical insulator in the transmission and distribution of electricity. The quantities of SF_6 released in the atmosphere during these applications are small but, as discussed above, its GWP is the highest of the greenhouse gases in the CARB inventory.[54,55]

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[52] As reported by the United States Department of Energy - Energy Information Administration (EIA), nationally, the transportation sector accounts for 33 percent of total energy-related CO_2 emission in 2005. Almost all (98 percent) of transportation sector CO_2 emissions result from the consumption of petroleum products: motor gasoline (60 percent of total transportation sector emissions), middle distillates (diesel fuel, 22 percent), jet fuel (12 percent), and residual oil (heavy fuel oil, 3.1 percent).

[53] *Op. Cit.,* Climate Change—Proposed Scoping Plan, A Framework for Change, pp. 12–13.

[54] *Op. Cit.,* Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emission Limit, November 16, 2007, p. 17.

[55] As reported by the United States Department of Energy, industrial sector carbon dioxide emissions accounted for 28 percent of total United States energy-related CO_2 emissions in 2005. Residential CO_2 emissions represented 21 percent of United States energy-related CO_2 emissions in 2005, of which natural gas accounted for 21 percent and petroleum (mainly distillate fuel oil) represented 8.4 percent. Commercial sector CO_2 emissions accounted for about 18 percent of total energy-related CO_2 emissions in 2005, of which natural gas contributed 16 percent and petroleum 5.3 percent (Source: United States Department of Energy, Energy Information Administration, Emissions of Greenhouse Gases in the United States 2005, 2006, pp. xii and xiii).

Figure 2.1-1

CALIFORNIA AIR RESOURCES BOARD
SOURCES OF CALIFORNIA GHG EMISSIONS BY END-USER (1990 and 2004)
Source: California Air Resources Board

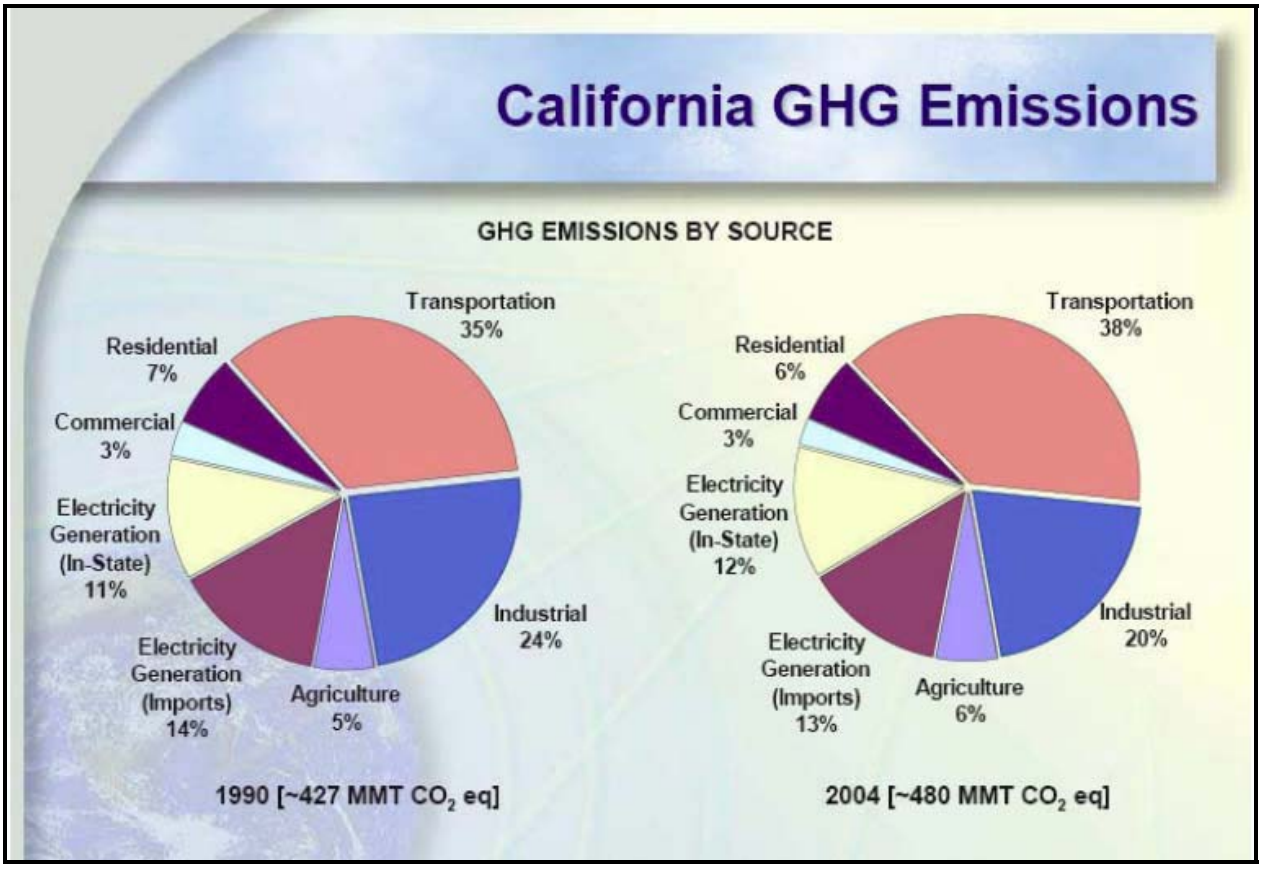

Table 2.1-2
2002–2004 Average Emissions and 2020 Projected Emissions (Business as Usual)
($MMTCO_2e$)

Sector	2002–2004 Average Emissions	Projected 2020 Emissions (Business-as-Usual)
Transportation	179.3	225.4
Electricity	109.0	139.2
Commercial and Residential	41.0	46.7
Industry	95.9	100.5
Recycling and Waste	5.6	7.7
High GWP	14.8	46.9
Agriculture	27.7	29.8
Forest Net Emissions	-4.7	0.0
Emissions Total	468.6	596.2
Source: California Air Resources Board.		

The Global Warming Solutions Act of 2006 (AB 32) required the CARB to determine the Statewide GHG emissions levels in 1990 and to approve a Statewide GHG emissions limit, equal to that level, to be achieved by 2020. In December 2007, the CARB adopted 427 $MMTCO_2e$ as the total Statewide aggregate GHG 1990 emissions level and 2020 GHG emissions limit. The 2020 target (427 $MMTCO_2e$) requires the reduction of 169 $MMTCO_2e$ or approximately 28.5 percent from the State's projected 2020 emission of 596 $MMTCO_2e$ (BAU) and a reduction of 42 $MMTCO_2e$ from 2002–2004 emission averages.[56]

California's Climate Action Team's[57] (CAT) "Climate Action Team Report to Governor Schwarzenegger and the Legislature" (2006 CAT Report) proposed "a path to achieve the Governor's targets that will build on voluntary actions of California's businesses, local government and community actions, and State incentive and regulatory programs."[58] The report provided an evaluation of the impacts of climate change on California, the potential adaptation measures that can be taken to best respond to those impacts, an economic assessment of the impacts, and possible emission reduction implementation options. The 2006 CAT Report presented data on more than 40 climate strategies, representing actions that could be taken by nine State agencies to reduce global warming pollution emissions and achieve the State's emission goals in 2010 and 2030. The total emission reduction potential for those strategies was estimated at 193 $MMTCO_2e$.

Following the completion of the 2006 CAT Report, it was recognized that additional data were needed to improve the characterization of the strategies across several dimensions, including

[56] *Op. Cit.,* Climate Change—Proposed Scoping Plan, A Framework for Change, p. 12.
[57] The CAT includes representatives from California Air Resources Board, Business, Transportation, & Housing Agency, California Department of Food and Agriculture, California Energy Commission, California Integrated Waste Management Board, Resources Agency, and California Public Utilities Commission.
[58] Lloyd, Alan C., et al., Climate Action Team Report to Governor Schwarzenegger and the Legislature, California Climate Action Team, California Environmental Protection Agency, March 2006, p. 97.

the steps required to implement the strategy, the expected emission reductions, costs, and savings.[59] As a result of subsequent analysis, the total emission reduction estimates for 2020 is about 138 $MMTCO_2e$. Of this amount, about 6 $MMTCO_2e$ may be double counted due to interactions between the strategies. The net emission reduction is, therefore, about 132 $MMTCO_2e$ in 2020. This estimate is lower than the 193 $MMTCO_2e$ GHG emission reduction figure derived by comparing the CARB's projected BAU emission estimate for 2020 with the CARB's calculated 1990 GHG emission level.[60]

State and federal policies addressing climate change are still evolving. In response to the Global Warming Solutions Act of 2006 (AB 32), various agencies, including the California State Association of Counties (CSAC), developed policy statements to assist local planning efforts. As indicated in the CSAC's "Climate Change Policy Statement and Principals": "Local governments have the ability to demonstrate leadership at the local and regional level to influence GHG emissions reductions and support a collaborative State, regional, and local approach to the development of GHG reduction strategies." As excerpted below, the CSAC's comprehensive policy includes guidelines regarding a number of relevant planning sectors.

- **Land use and climate change.** CSAC recognizes that population growth in the State is inevitable, thus any climate change strategies that affect land use must focus on how and where to accommodate and mitigate the expected growth in California. Land-use planning and development plays a direct role in transportation patterns, affecting travel demands and in return VMT and fuel consumption. It is recognized that in addition to reducing VMTs, investing in a seamless and efficient transportation system to address congestion also contributes to the reduction of GHG emissions. Smart land-use planning and growth remain critical components to achieve the reduction targets pursuant to the Global Warming Solutions Act of 2006 (AB 32), particularly to address the emissions from the transportation sector.

- **Energy.** Reducing energy consumption is an important way to reduce GHG emissions and conserve. Additionally, the capture and reuse of certain GHGs can lead to additional sources of energy. CSAC supports incentive-based green building programs that encourage the use of green building practices, incorporating energy efficiency and conservation technologies into State and local facilities.

- **Water.** According to the Department of Water Resources, projected increases in air temperature may lead to changes in the timing, amount, and form of precipitation, changes in runoff timing and volume, effects of sea level rise, and changes in the amount of irrigation water needed. CSAC has an existing policy that recognizes the need for State and local programs that promote water conservation and water storage development.

- **Air quality.** CSAC encourages the research, development, and use of alternative, cleaner fuels. Further, air quality issues reach beyond personal vehicle use and affect

[59] Climate Action Team, Updated Macroeconomic Analysis of Climate Strategies Presented in the March 2006 Climate Action Team Report—Final Report, October 15, 2007.
[60] *Ibid.*, p. 20.

diesel equipment used in development and construction for both the public and private sectors.

- **Solid waste and recycling.** The consumption of materials is related to climate change because it requires energy to mine, extract, harvest, process, and transfer raw materials, and more energy to manufacture, transport and, after use, dispose of products. Recycling and waste prevention can reduce GHG emissions by reducing the amount of energy needed to process materials, and reducing the amount of natural resources needed to make products.

- **Health.** CSAC recognizes the potential impacts of climate change on human health. As administrators of a variety of public health services and providers of health care services, California counties have significant health, administrative, and cost concerns related to a changing climate. Heat-related illnesses, air pollution, wild fire, water pollution and supply issues, mental health impact, and infectious disease all relate to the health and well-being of county residents, and to the range of cost of services provided by county governments. CSAC recognizes that there are direct human health benefits associated with mitigating greenhouse gas emissions, such as lowering rates of obesity, injuries, and asthma. Counties believe that prevention, planning, research, and preparation are the keys to coping with the public health issues brought about by climate change, and that any public policy related to climate change and public health must take into account the existing roles and resources of county governments.[61]

On August 3, 2009, in response to Governor Schwarzenegger's Executive Order S-13-08 (November 14, 2008),[62] the California Natural Resource Agency (CNRA) released the "2009 California Climate Adaptation Strategy Discussion Draft—Public Review Draft"[63] and started a 45-day public comment period concerning that document. The report constituted a draft comprehensive plan designed to guide adaption to climate change, presented an assessment how climate change could impact the State, and provided recommendations on how to manage that change in seven sectors (i.e., public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture, forestry, and transportation and energy resources). With regard to GHG emissions, the report noted that "one should consider that pre-industrial concentrations of carbon dioxide in the atmosphere were about 280 parts per million by volume (ppmv). By 1960, CO_2 concentrations had crept up slowly to about 315 ppmv—an increase of just 10 percent in about 200 years. The warming effect of those GHG concentrations is currently being felt. In the five intervening decades, with considerable economic growth worldwide that is fueled by the burning of carbon-based fossil fuels such as coal, gas, and oil, and extensive land use changes, there has been a staggering increase in atmospheric carbon dioxide. Recent measurements indicated global carbon dioxide concentrations in the atmosphere of 386 ppmv,

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[61] California State Association of Counties, Climate Change Policy Statement and Principals, November 2007.

[62] As noted, in part, therein: "By June 30, 2009, the California Resources Agency, through the Climate Action Team, shall coordinate with local, regional, state and federal public and private entities to develop a state Climate Adaptation Strategy. The strategy will summarize the best known science on climate change impacts to California, assess California's vulnerability to the identified impacts and then outline solutions that can be implemented within and across state agencies to promote resiliency."

[63] California Natural Resources Agency, 2009 California Climate Adaptation Strategy Discussion Draft: A Report to the Governor of the State of California in Response to Executive Order S-13-2008—Public Review Draft, August 3, 2009.

a 38 percent increase over pre-industrial times. The rate of annual increase of CO_2 continues to accelerate, largely determining future warming for the next few decades. In addition, other GHGs such as methane, nitrous oxide, and other gases, have dramatically increased over the last 200 years, adding to the heat-trapping effect of the atmosphere."[64]

With regard to projected changes in air quality, the draft report notes that "[m]any Californians living in or near urban areas currently experience the worst air quality in the nation, with associated economic costs reaching tens of billions every year. Research indicates that climate change influences on atmospheric processes will promote formulation of ground-level pollutants, such as ozone and secondary aerosols (particulate matter), and that these increases could offset much of the potential gains achieved through air pollution control measures, a phenomenon referred to as a 'climate penalty'... Recent evidence shows that increased ozone levels also impact overall mortality due to cardiovascular and lung disease; particulate matter also increases cardiovascular and respiratory illness and deaths."[65]

Impact of Changing Climatic Conditions

This analysis includes an assessment of the potential relationship between the Project and GHG emissions (the primary drivers of anthropogenic climate change) and climate change. The climatic conditions experienced by the Project over its lifetime are likely to be substantially different from those observed over the past century. Consequently, it is useful to consider the implications of changing climatic conditions for project performance.

As indicated in the IPCC's "Fourth Assessment Report,"[66] future "scenarios"[67] for Year 2100 modeled included: (1) temperature increase (a) "low-emissions scenario" (1.8°C [best estimate], range of 2.4 to 6.4 C); and (2) sea level rise (a) "low-emissions scenario" (0.18 to 0.38 meters [range]), and (b) "high-emissions scenario" (0.26 to 0.59 meters [range]). The potential implications of those "scenarios" to the Project are briefly outlined below:

- **Sea level.** Rising sea levels are unlikely to directly impact the Project due to its distance from the coast and relative elevation.

- **Temperature.** Rising temperatures could have a variety of impacts, including stress on sensitive populations (e.g., sick and elderly), additional burden on building systems (e.g., demand for conditioning), and, indirectly, increasing emissions of GHGs and criteria

[64] *Ibid.*, p. 1
[65] *Ibid.*, p. 36.
[66] The IPCC "Fourth Annual Report" is comprised of the four documents: (1) "Climate Change 2007: The Physical Science Basis—Summary for Policymakers" (February 2007); (2) "Climate Change 2007: Impacts, Adaptation and Vulnerability" (April 2007); (3) "Climate Change 2007: Mitigation of Climate Change" (May 2007); and (4) "Climate Change 2007: Synthesis Report" (November 2007).
[67] Future GHG emissions are the product of very complex dynamic systems, determined by driving forces such as demographic development, socio-economic development, and technological change. Their future evolution is highly uncertain. Scenarios are alternative images of how the future might unfold and are an appropriate tool with which to analyze how driving forces may influence future emission outcomes and to assess the associated uncertainties. Scenarios assist in climate change analysis, including climate modeling and the assessment of impacts, adaptation, and mitigation. The possibility that any single emissions path will occur as described in scenarios is highly uncertain. More information on the IPCC's selection of scenarios is available at the IPCC website (www.ipcc.ch/ipccreports/sres/emission/index.htm).

pollutants associated with energy generation. It is not, however, possible to reliably quantify these risks at this time.

- **Precipitation.** Climate change is expected to alter seasonal and inter-annual patterns of precipitation. These changes continue to be one of the most uncertain aspects of future scenarios. For the Project, the most relevant direct impacts are likely to be changes in the timing and volume of storm water runoff and changes in demand for irrigation. It is not, however, possible to reliably quantify the implications of these changes at this time.

- **Wildfire.** Changes in temperature and precipitation may combine to alter risks of wildfire. Changes in wildfire hazard have the potential to impact the Project; however, it is not possible to reliably quantify the implications of these changes at this time.

- **Water supply reliability.** Changes in temperature and precipitation may influence seasonal and inter-annual availability of water supplies. Consequently, it is reasonable to consider that climate change may affect water supply reliability. It is not, however, possible to reliably quantify these risks for the Project at this time. For more information on the Project's water supply, see Section 4.10, Utilities and Service Systems, of the DEIR.

2.1.3 Land Use and Transportation Linkages

As noted by the Land Use Subgroup of the California Climate Action Team (LUSCAT): "How California communities are designed and built has large consequences on the State's greenhouse gas emission levels, and as a result, has an impact on global climate change. The majority of the State's GHG emissions are the result of infrastructure and development decisions: how we build our buildings, where we put them, and the quality and types of infrastructure that are required to serve them. The act of designing the physical footprint and form of communities is called land use planning. In California, local governments are responsible for making land use and local infrastructure decisions."[68] The LUSCAT further noted that the availability and lower cost of land away from urban centers has resulted in development becoming less dense. This less dense, more dispersed development pattern has resulted in annual increases in the distances people drive, as measured in VMT.

The goal of reducing VMT is an official goal of the federal government's policy as it is stated in sections of the CAA, President Clinton's "Climate Change Action Plan" (CCAP), and in the Congestion Mitigation Air Quality Improvement Program (CMAQ), included in both the Intermodal Surface Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21) (U.S.C. 23, Section 149).[69]

The amount of miles traveled by California residents increased at a rate of 3 percent per year between 1975 and 2004, outpacing population growth, which grew at less than 2 percent annually over that same period. This increase in VMT directly correlates to an increase in petroleum use and GHG production. In 2004, passenger vehicle (cars and light trucks)

[68] California Climate Action Team, Land Use Subgroup, LUSCAT Submission to CARB Scoping Plan on Local Government, Land Use and Transportation, April 2008, p. 5.
[69] Federal Highway Administration website (www.fhwa.dot.gov/ohim/epastat.htm).

emissions of 136 $MMTCO_2e$ per year represented about 30 percent of the State's total GHG emissions, making passenger vehicles the biggest GHG emitters in California. The transportation sector accounted for 38 percent of the State's GHG inventory in 2004. On-road vehicles emit the majority of California's transportation-related GHG emissions, representing 172 $MMTCO_2e$ or 36 percent of the State's approximately 475 $MMTCO_2e$ total.[70]

The Urban Land Institute (ULI) notes the "United States is the largest emitter worldwide of the greenhouse gases that cause global warming. Transportation accounts for a full third of CO_2 emissions in the United States, and that share is growing, rising from 31 percent in 1990 to 33 percent today... Transportation CO_2 reduction can be viewed as a three-legged stool, with one leg related to vehicle fuel efficiency, a second to the carbon content of the fuel itself, and a third to the amount of driving or VMT. Energy and climate policy initiatives at the federal and state levels have pinned their hopes almost exclusively on shoring up the first two legs of the stool, through the development of more efficient vehicles (such as hybrid cars) and lower-carbon fuels (such as biodiesel fuel)... Carbon dioxide is more difficult to control through vehicle technology than are conventional air pollutants. Conventional pollutants can be reduced in automobile exhaust with sophisticated emission control systems (catalytic converters, on-board computers, and oxygen sensors). Carbon dioxide, meanwhile, is a direct outcome of burning fossil fuels; there is no practical way to remove or capture it from moving vehicles. At this point in time, the only way to reduce CO_2 emissions from vehicles is to burn less gasoline and diesel fuel."[71]

As indicated by the USEPA: "The physical characteristics and patterns of land development in a region, also known as the urban form, can affect air quality by influencing the travel mode choices citizens have available to them. Certain types of urban form necessitate the use of personal cars and trucks for travel. For example, when jobs and housing are far away from each other, and mass transit is not available, people are dependent on cars for daily travel. Urban forms that make automobile travel a necessity can contribute to air quality problems. However, other options for urban form do exist. For example, development patterns that locate jobs, housing, and recreation in closer proximity to each other can mean shorter and fewer car and truck trips, thus reducing vehicle miles traveled and likely reducing motor vehicle emissions. Other development patterns have the potential to improve or mitigate air quality problems by providing and promoting alternatives to vehicular travel, such as mass transit, walking, or biking."[72]

The USEPA compared the impacts of compact and dispersed development patterns on transportation patterns. Based on a review of 83 of the nation's largest metropolitan areas, the following land-use characteristics were chosen as the key factors contributing to sprawl: population dispersed in low-density residential neighborhoods, a rigid separation of homes,

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[70] *Ibid*., p. 13.

[71] Ewing, Reid, et al., Growing Cooler: The Evidence on Urban Development and Climate Change, Urban Land Institute, September 2007, Executive Summary, unpaginated.

[72] *Op. Cit.*, EPA Guidance: Improving Air Quality through Land Use Activities, EPA420-R-01-001, p. 15.

suburban town center), and networks of roads marked by very large block size and poor access from one place to another.[73]

As reported by the California Air Resources Board (CARB) and as illustrated in Figure 2.1-2 on page 2-26 (Modes of Travel in California),[74] according to a Statewide survey of travel in California, about 86 percent of personal travel is by automobile, motorcycle, or light-duty truck. Collectively, walking and bicycling comprise about 9 percent of total travel, while public transit accounts for only about 2 percent of all personal travel in the State. The CARB notes that "[r]esearch has shown that the longer a vehicle's engine is shut off, the more emissions are produced when it is started again. In addition, after the engine is shut off, 'hot soak' evaporative emissions continue to be released. On average, 'trip end' emissions such as these comprise nearly one-half of the total pollution produced by a 5-mile trip, and 18 percent of emissions from a 20-mile trip. Making fewer short vehicle trips can help reduce these emissions. A nationwide survey indicates that most of our daily trips are less than 5 miles in length. Some of these trips could be combined or made by walking, bicycling, or transit if destinations are nearby."[75]

Land-use strategies that encourage people to walk, bicycle, and/or use public transit rather than rely upon their automobiles for mobility tend to be "better for air quality."[76] Strategies that provide access to and support multi-modal transportation systems can help to reduce automobile use and its associated emissions. At the neighborhood-level, site-specific strategies can be applied to existing and new development projects that promote reductions in driving rates and associated vehicle emissions. Those strategies include mixed-use development, interconnected street networks, traditional neighborhood design, and TOD.

As indicated by the CEC: "A balance of jobs and housing may reduce daily work vehicle miles traveled, which is important in managing congestion, but work trips account for a small and shrinking percentage of total travel. According to the National Household Travel Survey 2001 Highlights Report, 45 percent of daily trips were made for family and personal reasons, such as shopping and running errands; 27 percent were made for social and recreational purposes; and 15 percent were made for commuting to work. 'Non-work is the major reason for travel even in peak travel periods'… Non-work vehicle miles traveled is a large portion of travel, which may not respond to traditional methods of reducing vehicle miles traveled in the same way. Transit-oriented developments, for example, may be more successful if they are designed to facilitate non-auto errand trips as well as transit commutes."[77]

Mixed-use development allows compatible land uses (e.g., shopping, jobs, and housing) to locate closer together, thus decreasing the travel distances between them and encouraging "non-auto errand trips." Development activities combining both residential and non-residential

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[73] *Op. Cit*., LUSCAT Submission to CARB Scoping Plan on Local Government, Land Use and Transportation, pp. 15-16.

[74] California Environmental Protection Agency, California Air Resources Board, The Land Use—Air Quality Linkage: How Land Use and Transportation Affect Air Quality, 1997 Edition, Figure 4, p. 3.

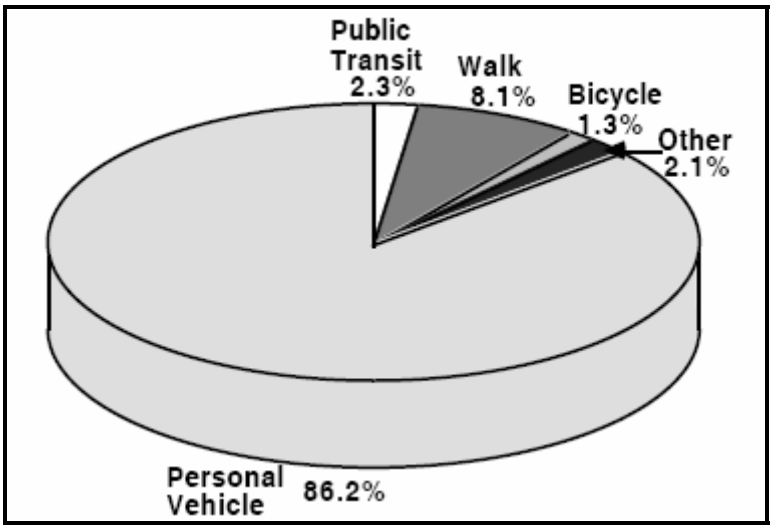
[75] *Ibid*., p. 2.

[76] *Ibid*., p. 4.

[77] California Energy Commission, 2007 Integrated Energy Policy Report, CEC-100-2007-008-CMF, 2007, p. 210.

Figure 2.1-2

MODES OF TRAVEL IN CALIFORNIA
Source: California Air Resources Control Board



uses can reduce VMT and trips and increase transit ridership, especially during off-peak periods. For example, areas containing restaurants, a theater, and retail stores have a greater potential to generate walking and transit use than areas containing only retail stores.

As indicated by the SCAQMD, at a macro-scale (e.g., jobs-housing ratio) and micro-scale (e.g., the availability of services within walking distance), many references point to the impact of "diversity" (mix of uses) on travel behavior.[78] Key references relating to the direction and magnitude of this relationship include:

- Higher densities are most beneficial to transit ridership when they result in a mix of residential, commercial, and office uses.[79]
- The elasticity of vehicle trips with respect to "diversity" is -0.051. The elasticity of VMT is -0.032. In this case, "diversity" is a measure of how the project affects regional population/employment balance.[80]
- Typical elasticities for vehicle trips with respect to local "diversity" are 0.03 and those of VMT are -0.05.[81]
- A balance of 1.5 jobs per household is estimated to produce a bus mode share 2 percentage points over the share for a single-use area, although the degree of mix is not a useful estimating variable.[82]
- Suburban activity centers with some on-site housing had 3 to 5 percent more transit, bike, and walk commute trips.[83]
- The presence of retail reduces auto mode share by 2 to 5 percent depending on neighborhood density.[84]
- At suburban activity centers, the presence of retail in office buildings lowers vehicle trip rates by 6 to 8 percent.[85]

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[78] South Coast Air Quality Management District (Jones & Stokes Associates), Software User's Guide: URBEMIS2007 for Windows, Version 9.2—Emissions Estimation for Land Use Development Projects, November 2007, pp. D-15 and D-16.

[79] Lund, Hollie, Cervero, Robert, and Willson, Richard, Travel Characteristics of Transit-Oriented Development in California, Final Report, January 2004.

[80] Criteron Planner/Engineers and Fehr & Peers Associates, Index 4D Method, A Quick-Response Method of Estimating Travel Impacts from Land-Use Changes, Technical Memorandum, United States Environmental Protection Agency, October 2001.

[81] Ewing, Reid, Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth, Smart Growth Network 1999.

[82] Messenger & Ewing (1996), cited in Kuzmyak, J. Pratt, Richard H., and Douglas, Bruce G., Traveler Response to Transportation System Changes, Chapter 15 - Land Use and Design, Transportation Research Board, TCRP Report 95, 2003

[83] Cervero (1989), cited in Kuzmyak, J. Pratt, Richard H., and Douglas, Bruce G., Traveler Response to Transportation System Changes, Chapter 15 (Land Use and Design), Transportation Research Board, TCRP Report 95, 2003, p. 15-55.

[84] Parsons Brinkerhoff (1996), cited in Kuzmyak, J. Pratt, Richard H., and Douglas, Bruce G., Traveler Response to Transportation System Changes, Chapter 15 (Land Use and Design), Transportation Research Board, TCRP Report 95, 2003, p. 15-56.

- Employment sites with "good" nearby retail and commercial services have a vehicle trip rate 21.5 percent below the ambient rate. Sites with "fair" services showed an 8.3 percent reduction and those with "poor" services a 5.3 percent reduction. This is attributable not just to the presence of these services but the fact that they make TDM programs more likely to succeed.[86]

The typical suburban circulation pattern limits the number of available routes between trip origin and destination points, placing many vehicles on major streets and at signalized intersections and resulting in higher levels of traffic congestion, particularly during peak periods. Arterial highways can be difficult and dangerous for pedestrians and bicyclists. Such thoroughfares typically become barriers to walking and bicycling and tend to encourage driving, even for short trips. In contrast, more intersected street patterns provide multiple routes to travelers and can reduce travel distances. Interconnected street patterns provide numerous route choices rather than focusing traffic onto arterials, offer more direct routes for pedestrians and bicyclists, and can slow vehicle speeds. Traditional neighborhood design (TND) is a strategy that combines residential and non-residential uses and interconnected streets patterns to minimize travel distances. A typical neo-traditional neighborhood has a "town center" where services and offices are concentrated. Multi-family units are clustered within walking distance of the town center. Single-family homes are on smaller lots. Front porches are typically included and are closer to the sidewalk.[87]

2.1.4 Threshold of Significance Criteria

Until the passage of California Global Warming Solutions Act of 2006 (AB 32), CEQA documents generally did not evaluate greenhouse gas emissions or impacts on global climate change attributable to proposed actions.[88] The primary focus of air pollutant analysis in CEQA documents was the emission of criteria pollutants, or those identified in the State and federal Clean Air Acts as being of most concern to the public and government agencies. With the passage of AB 32 and SB 97, a more detailed analysis of GHG emissions is recommended in CEQA documents; however, the analysis of GHGs is different from the analysis of criteria pollutants. Since the half-life of CO_2 is about 100 years, GHGs affect the global climate over a

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[85] NTI (2000), cited in Kuzmyak, J. Pratt, Richard H., and Douglas, Bruce G., Traveler Response to Transportation System Changes, Chapter 15 (Land Use and Design), Transportation Research Board, TCRP Report 95, 2003, p. 15-62.

[86] Comsis Corporation (1994), cited in Kuzmyak, J. Pratt, Richard H., and Douglas, Bruce G., Traveler Response to Transportation System Changes, Chapter 15 (Land Use and Design), Transportation Research Board, TCRP Report 95, 2003, pp. 15-66 and 67

[87] *Op. Cit.*, California Air Resources Board, The Land Use—Air Quality Linkage: How Land Use and Transportation Affect Air Quality, 1997 Edition, pp. 4-13.

[88] Senate Bill 97 directs OPR to develop "'guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions by July 1, 2009,' and directs the California Resources Agency to certify and adopt the guidelines by June 30, 2010. An agency may also believe there is insufficient information to support selecting one specific threshold over another... [A]ir districts have historically set CEQA thresholds for air pollutants in the context of the local clean air plan, or within the framework of a rule or policy that manages risks and exposures due to toxic pollutants. There is no current framework that would similarly manage impacts of greenhouse gas pollutants, although the CARB is directed to establish one by June 30, 2009, pursuant to AB 32. A local agency may decide to defer any consideration of thresholds until this framework is in place" (Source: California Air Pollution Control Officers Association, CEQA and Climate Change—Evaluating and Addressing Greenhouse Gas Emissions form Projects Subject to the California Environmental Quality Act, January 2008).

relatively long time period. Conversely, for criteria pollutants, significance thresholds are based on daily emissions and the determination of attainment or nonattainment is based on the daily exceedance of applicable ambient air quality standards (e.g., 1-hour and 8-hour exposures).

In its January 2008, CEQA and Climate Change white paper, the California Air Pollution Control Officers Association (CAPCOA) identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. In its white paper, the CAPCOA suggests making significance determinations on a case-by-case basis when no significance thresholds have been formally adopted by a lead agency. One of the potential approaches identified in the CAPCOA White Paper, Threshold 1.1, would require a project to meet a percent reduction target. This target would be based on the average reduction from "business-as-usual" emissions identified by CARB as necessary to satisfy AB 32's mandate of returning to 1990 levels of GHG emissions by 2020.

The OPR Advisory recognizes that CEQA guidelines have not been adopted to provide guidance as to how climate change is to be addressed under CEQA. OPR also notes that it is continuing to consult with the CARB regarding appropriate thresholds of significance to use for climate change analysis (but that such guidance is not yet available). OPR has provided the following "informal guidance" regarding the following steps for addressing climate change impacts under CEQA: (1) identify and quantify the GHG emissions; (2) assess the significance of the impact on climate change; and (3) if significant, identify alternatives and/or mitigation measures that will reduce impacts below significance.[89]

Although project-specific GHG emissions can be calculated, neither the SCAQMD nor the City nor the County have established any programmatic or project-level significance thresholds for GHG emissions.[90] At this time, GHGs (primarily CO_2) are not regulated as a criteria pollutant and there are no broadly recognized significance criteria for these emissions Similarly, the 2007 AQMP does not set forth CEQA targets that can be used to determine any potential threshold values for GHG emissions.

Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is speculative to identify the specific impact, if any, to global climate change from one project's incremental increase in global GHG emissions. Pending the establishment of Statewide thresholds of significance for GHG emissions, the Lead Agency has elected to evaluate significance on a case-by-case basis. Because a single project's GHGs emissions to affect global climate change is highly speculative, significance analysis is more properly

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[89] *Op. Cit.*, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review, p. 5.

[90] In January 2008, the CAPCOA published a "white paper" evaluating and addressing GHG emissions under CEQA. As specified therein, the CAPCOA document "is intended as a resource, not a guidance document." As indicated by the CAPCOA: "The CEQA statutes do not require an air district or any lead agency to establish significance thresholds under CEQA for any pollutant. While there are considerations that support the establishment of thresholds, there is no obligation to do so. An air district or other lead agency may elect not to establish significance thresholds for a number of reasons. The agency may believe that the global nature of the climate change problem necessitates a Statewide or national framework for consideration of environmental impacts" (Source: California Air Pollution Control Officers Association, CEQA and Climate Change—Evaluating and Addressing Greenhouse Gas Emissions form Projects Subject to the California Environmental Quality Act, January 2008).

assessed on a cumulative basis.[91] Assessing the significance of a project's contribution to cumulative global climate change involves: (1) determining an inventory of the project's GHG emissions; and (2) considering project consistency with applicable emission reduction strategies and goals, such as those set forth by the Global Warming Solutions Act of 2006 (AB 32).

The CARB's "Climate Change Scoping Plan" quantified the Statewide 1990 GHG emission total to be 427 $MMTCO_2e$ and forecast that the 2020 level would be 596 $MMTCO_2e$ if the State continued to conduct "business-as-usual" under the federal and State laws in effect as of the plan's adoption. To achieve the reduction to 1990 levels specified by AB 32, the plan concludes that total reduction of 174 $MMTCO_2e$ (28.5 percent) is required.

Based on the foregoing, the Project would, therefore, normally be judged to produce a significant or potentially significant effect to GHGs and global climate change if the Project or Project-related activities were to:

- Impede the State's ability to achieve the reduction to 1990 levels in GHG emissions required by California Global Warming Solutions Act of 2006 (AB 32). An impediment to the achievement of the GHG reduction goals of AB 32 would occur if Project-wide emissions are not reduced to achieve a 28.5 percent reduction of GHG emissions over 2020 forecasted BAU conditions.

2.1.5 Impact Analysis

2.1.5.1 Operational Impacts

Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is speculative to identify the specific impact, if any, to global climate change from one project's incremental increase in global greenhouse gas emissions. The Project's greenhouse gas emissions and the resulting level of significance of the Project's potential impacts are more properly assessed in terms of the Project's contribution to the cumulative impact of global GHG emissions on climate change. That discussion is set forth in Section 2.1.5.2 (Cumulative Impacts) below. A quantified analysis of the GHG emissions anticipated to result from the Project's construction and operational activities is included as part of the cumulative impact analysis. As part of that analysis, the Project's GHG emissions are analyzed on a project-specific basis with respect to its impacts on global climate change.

[91] Until such time as State guidance is available on thresholds of significance for GHG emissions, OPR recommends that compliance with CEQA include: (1) a determination as to whether GHGs may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source; (2) assess whether those emissions are individually or cumulatively significant; when assessing whether a project's effects on climate change are "cumulatively considerable," even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects; and (3) if the lead agency determines that the GHG emissions from the project, as proposed, are potentially significant, investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts of those emissions (Source: Governor's Office of Planning and Research, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review, Technical Advisory, June 19, 2008).

2.1.5.2 Cumulative Impacts

Environmental Impact 7-11. *The Project will result in 256,432 tonnes of CO_2e from one-time sources (i.e., vegetation and construction activities) or 6,411 tonnes of CO_2e annualized over the 40-year development life and annual greenhouse gas emissions that are expected to occur after build-out of 98,059 tonnes of CO_2e. The combined total annualized emissions from the Project would be approximately 104,470 tonnes per year. The BAU scenario results in 155,338 tonnes per year. The overall reduction in GHG emissions for the Project relative to BAU is 32.7 percent.*

Preliminary Determination 7-11. *Less-than-significant impact.*

Assessing the significance of a project's contribution to cumulative global climate change involves: (1) determining an inventory of project GHG emissions; and (2) considering project consistency with applicable emission reduction strategies and goals, such as those set forth by the Global Warming Solutions Act of 2006 (AB 32). Additional information and analysis regarding GHG emissions is presented in the Climate Change Technical Report) included as Appendix V-B.[92]

Methodology

Three GHG inventories were developed to assess the Project's potential GHG and global climate change impacts: (1) the baseline inventory, (2) the inventory of emissions resulting from the Project, and (3) the inventory of project emissions under a BAU scenario. The emission inventories consider the following categories of GHG emissions:

- Emissions due to land use (vegetation) changes;
- Emissions from construction activities;
- Residential building operations emissions;
- Non-residential building operations emissions;
- Mobile source operations emissions;
- Municipal operations emissions; and
- Area sources (fireplaces and lawn maintenance) emissions.

A detailed discussion of the methodology employed for each of the sources discussed above is provided in the Climate Change Technical Report included as Appendix V-B.

The baseline inventory includes emissions associated with the physical environmental conditions at the time the notice of preparation (NOP) was published. At the time of the NOP's publication, the Project site was undeveloped with the exception of an existing El Rancho Verde

[92] The information and analysis presented herein is derived from "Climate Change Technical Report—Lytle Creek Ranch" (Environ International Corporation, October, 2011).

Royal Vista golf course and one industrial source (Monier Lifetile). The analysis conservatively assumed that GHG emissions from these sources are zero. The difference between baseline emissions and project emissions represents the net change in emissions resulting from the Project.

The BAU scenario consists of projected GHG emissions for the Project that would occur if the Project were to be built without the Project design features and energy reduction commitments made by Lytle Development Company, and in the absence of regulations promulgated to comply with AB 32, including GHG reduction measures discussed in the Assembly Bill (AB) 32 Scoping Plan.

The timeframe over which GHGs are emitted varies from category to category, which is taken into consideration in the emissions inventory. For most of the categories, GHGs will be emitted every year that the development is inhabited. For these categories (residential buildings, non-residential buildings, mobile sources, municipal services, and area sources), the inventory includes estimates of annual GHG emissions from ongoing development operations. GHG emissions from two of the categories, construction and changes in vegetation, are one-time events that will not be part of the development's ongoing activity. These one-time emissions can be divided by the estimated lifetime of the Project to allow direct comparison of these two emissions classes. The inventory presents estimates of these one-time emissions, converts them to annualized estimates, and integrates them into an annual inventory.

It is worth noting that the GHG emissions estimates assume there are no reductions in GHG-generating activities over time. This is clearly unlikely, and presents a conservative analysis, given the expected reductions in GHG emissions from most activities that will take place over the years due to future regulations, greater public awareness and the likely increasing costs of energy. For example, the emissions estimate for electricity consumption assumes that there will not be an increase in energy production from renewables or non-GHG producing sources beyond currently adopted regulations; this is not realistic, given the mandates of AB 32, and other regulatory development, as discussed later in this section.

To estimate GHG emissions from the Project, the analysis directly or indirectly relied primarily on the following five different types of resources: (1) emissions estimation guidance from government-sponsored organizations; (2) government-commissioned studies of energy use patterns; (3) energy surveys by other consulting firms; (4) emissions estimation software; and (5) building energy modeling software. These sources are each described below.

- **Emissions estimation guidance.** The GHG inventories were developed using guidance from two government-sponsored organizations to assist in the estimation of GHG emissions. The first is the California Climate Action Registry (CCAR), which was established by the California Legislature to assist willing parties in estimating and recording their GHG emissions to use as a baseline for meeting future emission reduction requirements. Publications by the CCAR include not only recommendations on how to compile a GHG emissions inventory but also relevant data on energy use and emissions that are utilized in this protocol. The second organization is the Intergovernmental Panel on Climate Change (IPCC) which was established in 1988 by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO). The IPCC's main role is to assess information on climate change which is synthesized in IPCC reports, including methodology reports. These reports also

include relevant emission factors and specific scientific data that can be used to estimate GHG activities from various activities.

- **Emissions and energy use studies.** For estimating emissions based on electrical and natural gas energy use, literature information on patterns of energy use must often be employed. Studies commissioned by the United States Department of Energy—Energy Information Administration (EIA) and the California Energy Commission (CEC) provide data on energy use patterns associated with municipal activities, natural resource distribution, and other activities that will take place in the Project. These data were used to estimate energy use patterns which were applied to the specific characteristics of the Project to estimate GHG emissions. In addition to EIA and CEC studies, studies performed by individual municipalities or scientific organizations were also used in this analysis.

- **Emissions estimation software.** The CARB, the SCAQMD, and other public and private organizations have developed several software programs to facilitate the calculation of emissions from construction, motor vehicles, and urban developments by streamlining emissions estimation from these sources. This inventory was developed using several models to estimate GHG emissions from the Project. These are the OFFROAD2007 model, the EMFAC model, the URBEMIS model, the United States Department of Energy—National Renewable Energy Laboratory's (NREL) Building America Research Benchmark Definition (BARBD) model, and the Micropas model.

Baseline GHG Emissions Inventory

The baseline inventory includes emissions associated with the physical environmental conditions at the time the NOP was published. At the time of the NOP's publication, the Project site was undeveloped with the exception of an existing El Rancho Verde Royal Vista golf course and one industrial source (Monier Lifetile). The analysis conservatively assumed that GHG emissions from these sources are zero.

Proposed Project GHG Emissions Inventory

As discussed above, the emission inventories consider the following categories of GHG emissions:

- Emissions due to land use (vegetation) changes;
- Emissions from construction activities;
- Residential building operations emissions;
- Non-residential building operations emissions;
- Mobile source operations emissions;
- Municipal operations emissions; and
- Area sources (fireplaces and lawn maintenance) emissions.

A detailed discussion of each of these sources is provided below.

- **Emissions due to land use (vegetation) changes.** This section presents the calculation of the positive and negative GHG emissions associated with vegetation removal and revegetation at the Project site. The permanent removal of existing

vegetation can contribute to net GHG increases by reducing existing carbon sequestration capacity.[93] Areas that are temporarily disturbed but re-vegetated with the same vegetation type are assumed to have no net impact.

Following completion of the Project, some areas will become revegetated with trees, shrubs, and other vegetation. These areas could potentially sequester more CO_2 from the atmosphere than was sequestered prior to development. The difference between the total before-development sequestered CO_2 and the after-development sequestered CO_2 is the one-time CO_2 released from clearing the vegetation less the CO_2 sequestered by new plantings.[94] The overall CO_2 emissions due to vegetation change will result from two processes: (1) the change in the amount of CO_2 sequestered by vegetation, which would lead to a one-time GHG release; and (2) the amount that can be expected to be sequestered by new plantings. Both issues are discussed below.

The one-time release of GHG emissions due to permanent changes in carbon sequestration capacity was calculated based on the change in area of various land types due to the development. The land types that are present at the Project site were listed and characterized using the available general vegetation types found in the IPCC's "2006 IPCC Guidelines for National Greenhouse Gas Inventories" (IPCC Guidelines).[95] This characterization is shown in Table 2.1-3 on page 2-35 (CO2 Sequestration Change due to Land-Use Change).

When vegetation is removed, it may undergo biodegradation[96] or it may be combusted. Either pathway results in the carbon (C) present in the plants being combined with oxygen (O2) to form CO_2. To estimate the mass of carbon present in the biomass, biomass weight is multiplied by the mass carbon fraction, 0.47.[97] The mass of carbon is multiplied by 3.67[98] to calculate the final mass of CO_2, assuming all of this carbon is converted into CO_2. The results of this calculation are shown in Table 2.1-4 on page 2-36 (Carbon per Acre for IPCC Land Types) for each type of vegetation.

Table 2.1-3 (CO_2 Sequestration Change due to Land-Use Change) shows the effective change in the amount of sequestered CO_2 due to the change in land use of the developed area for each land type. The total equivalent CO_2 emissions attributable to the net change of vegetation are approximately 19,400 tonnes. Planting individual trees on the Project site will sequester CO_2. Changing vegetation as described above results in a one-time carbon-stock change. Planting trees is also considered to result in a one-time carbon-stock change.

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[93] It is assumed that all mature land-types (at least 20 years old) are at steady-state. (Source: The World Resource Institute, Land Use, Land-Use Change, and Forestry Guidance for GHG Project Accounting [www.ghgprotocol.org/DocRoot/97hb6BCSAAG2bImO7c9d/LULUCF%20Final.pdf].)

[94] It is assumed that mature ecosystems do not have a net influx or outflux of carbon.

[95] Intergovernmental Panel on Climate Change, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, 2006 (www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm).

[96] Cleared vegetation may also be deposited in a landfill or compost area, where some anaerobic degradation generating CH_4 may take place. For the purposes of this section, however, it is assumed that only aerobic biodegradation will take place which will only result in CO_2 emissions.

[97] The fraction of the biomass weight that is carbon. Here, a carbon fraction of 0.47 has been used for all vegetation types from the IPCC Guidelines, default forestland and agricultural land ratio. CCAR assumes a similar value of 0.5 in its Forest Selector Protocol.

[98] The ratio of the molecular mass of CO_2 to the molecular mass of carbon is 44/12 or 3.67.

Table 2.1-3
CO_2 Sequestration Change Due to Land-Use Change

Vegetation Type[1]	IPCC Designation[2]	IPCC Sub Qualification	Tons Dry Matter Carbon/Acre[3] [tonne/acre]	Sequestered CO_2/Acre[4] [tonne/acre]	Total Impacted Area[5] [acres]	CO_2 Sequestration Capacity of Removed Vegetation [tonne]
Scrubland	Forest Land	Scrub	3.9	14.3	1,356.3	19,400
Grand Total			**3.9**	**14.3**	**1,356.3**	**19,400**

Notes:
1. Land types shown here represent vegetation that will be potentially removed upon development.
2. Land types are mapped to generalized IPCC Land Designations (IPCC 2006).
3. Dry matter carbon per acre was determined from information contained in Table 2.1-4.
4. It is conservatively assumed that all carbon is eventually converted into CO2. Multiply the mass of carbon by 3.67 to calculate the final mass of CO2 (the molecular mass of CO2 / the molecular mass of carbon is 44/12 or 3.67).
5. Data provided by Lytle Development Company. A positive number indicates the amount of land removed and a negative number indicates that this land type is added.

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm; Lytle Creek Ranch Specific Plan, December 2008; Table 4-1 of Revised Climate Change Technical Report.

Table 2.1-5 on page 2-37 (CO_2 Sequestration Capacity of New Vegetation Plantings) presents default annual CO_2 sequestration rates on a per tree basis, based on values provided by the IPCC. Approximately 30,000 new net trees will be planted in LCRSP community. Planting these trees in the community will sequester approximately 20,520 tonnes CO_2. This was calculated by using the sequestration rate of 0.032 tonne CO_2 per year per pine tree for 8,000 new pine trees, the average tree sequestration rate of 0.035 tonne CO_2 per year per tree for 22,000 new trees of undefined type, and assuming 20 years of growth. This sequestration brings the net CO_2 emissions from vegetation to 19,400 tonnes (land-use changes) minus 20,520 tonnes (30,000 net new trees), producing a negative 1,120 tonnes (net decrease in the amount of CO_2 released). The net CO_2 emissions from vegetation changes are presented in Table 2.1-6 on page 2-37 (Change in CO_2 Sequestration due to Land-Use Changes and New Vegetation Planting).

- **Emissions from construction activities.** There are three major construction phases associated with the Project: demolition, site grading, and building construction. The building construction phase can be broken down into three subphases: building construction, architectural painting, and asphalt paving. GHG emissions from these construction phases are largely attributable to fuel use from construction equipment and worker commuting.

  CO_2 emissions associated with different aspects of urban development can be estimated using a combination of software programs. The OFFROAD2007 and the EMFAC2007 models are used to generate emission factor data for construction equipment and motor vehicles, respectively. These values serve as inputs for the URBEMIS model, which estimates emissions from several different aspects of urban development, including from construction sources based on emission factors and information specific to the development.

Table 2.1-4
Carbon per Acre for IPCC Land Types

IPCC Designation	Sub Qualification	Above Ground Biomass[1] [tonne d.m./acre]	Ratio of Above Ground/Below Ground Biomass[2]	Total Biomass [tonne d.m./ Hectare]	Total Biomass[3] [tonne d.m./acre]	Tonnes Dry Matter Carbon/Acre[4] [tonne/acre]
Forest Land	Scrub	5.7	2.17	20.5	8.3	3.9
Forest Land	Trees	52.6	4.35	159.9	64.7	30.4

Notes:
d.m. = dry mass
1. Numbers listed are used in conjunction with above ground/below ground ratios to calculate total biomass per acre. Values from source converted to tonne/acre.
2. This value is used to calculate total biomass when data for the total biomass is not available for a particular land type.
3. Total biomass is either listed directly in the IPCC protocol or calculated from above ground biomass and the Above Ground/Below Ground biomass ratios as follows: Total = Above + (Above / [Above:Below Ratio]). Values from source converted to tonne/acre as necessary.
4. Total biomass multiplied by carbon fraction in plant material (0.47) to calculate carbon content. From IPCC (2006), default value for Forest Land (Table 4.3 of IPCC).

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm. Table 4-2 of Revised Climate Change Technical Report.

Table 2.1-5
CO_2 Sequestration Capacity of New Vegetation Plantings

Vegetation Species[1]	IPCC Species Class Designation	Sequestered CO_2/Unit[2] [tonne/unit/year]	Total Quantity of New Vegetation[1]	CO_2 Sequestration Capacity of New Vegetation[3] [tonne]
Pine	Pine	0.032 tree	8,000 trees	5,120
Miscellaneous	Miscellaneous Trees	0.035 tree	22,000 trees	15,400
Total	—	—	30,000 trees	20,520

Notes:
1. Site-specific planting data provided by Lytle Development Company.
2. Species class-specific sequestration values are provided in Table 8.2 of "2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4." For species that do not appear in Table 8.2, the species was classified as "miscellaneous" and the average value of all listed data was used.
3. An active growing period of 20 years was assumed for the new trees planted. The analysis assumes that all trees will live for at least 20 years.

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm; Table 4-3 of Revised Climate Change Technical Report.

Table 2.1-6
Change in CO_2 Sequestration Due to Land-Use Changes and New Vegetation Planting

CO_2 Sequestration Capacity of Vegetation [tonne]	CO_2 Sequestration Capacity of New Vegetation [tonne]	Net Change in CO_2 Sequestration Capacity[1] [tonne]
-19,400	20,520	1,120

Notes:
1. A positive value represents an increase in sequestration capacity and thus a net reduction in CO_2.

Source: Table 4-4 of Revised Climate Change Technical Report.

GHG emissions from construction equipment were calculated from demolition, grading, building construction, and paving using the URBEMIS methodology based upon the number and type of equipment that will be used in the Project's construction, as well as the duration of the different construction phases. The analysis assumed that each piece of equipment will operate for eight hours a day and five days a week during a given phase duration. Table 2.1-7 on page 2-38 (GHG Emissions from Construction Equipment) contains specifications for each type of equipment (horsepower, load factor,[99] and GHG emission factor) provided by OFFROAD2007 and describes the detailed GHG calculations. The estimated total GHG emissions from all construction equipment is about 139,370 tonnes CO_2.

Emissions from worker commuting are associated with workers involved in the demolition and site grading phases and all construction subphases (building construction, paving, architectural coating). Table 2.1-8 on page 2-40 (Estimated GHG

[99] Load factor is the percentage of the maximum horsepower rating at which the equipment normally operates.

Table 2.1-7
Estimated GHG Emissions from Construction Equipment

Equipment	Total Number of Equipment[1]	Total Equipment Hours[2]	Horsepower[3]	Load Factor[3]	Emission Factor[3] (g/bhp-hr)	CO_2 Emissions[4,5] (tonnes)
Scrapers	48	383,829	313	0.72	568.3	49,158
Aerial Lifts	8	91,474	60	0.46	568.3	1,435
Rubber Tired Loaders	11	95,537	164	0.54	568.3	4,808
Air Compressors	7	68,874	106	0.48	568.3	1,992
Water Trucks	17	141,977	189	0.5	568.3	7,625
Forklifts	16	188,000	145	0.3	568.3	4,648
Mixers	9	111,674	10	0.56	568.3	355
Pavers	2	23,486	100	0.62	568.3	828
Rollers	10	108,526	95	0.56	568.3	3,281
Rubber Tired Dozers	19	148,943	357	0.59	568.3	17,829
Graders	40	308,377	174	0.61	568.3	18,601
Paving equipment	10	108,526	104	0.53	568.3	3,400
Tractors/Loaders/Backhoes	35	330,331	108	0.55	568.3	11,151
Cranes	5	55,651	399	0.43	568.3	5,426
Generator sets	10	115,303	49	0.74	568.3	2,376
Welders	10	115,303	45	0.45	568.3	1,327
Other General Industrial Equipment	6	63,846	238	0.51	568.3	4,404
Concrete Industrial Saws	5	64,703	10	0.73	568.3	268
Skid Steer Loaders	2	33,383	44	0.55	568.3	459
Total						**139,370**

Notes:
Bhp = break horsepower
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
g = gram
GHG = Greenhouse Gas
hr = hour
1. The lists of equipment during construction were provided by PCR Services as URBEMIS input files.
2. The equipment-hour of individual equipment is calculated based on the phase duration. ENVIRON assumes that all equipment operate 8 hours a day and five days a week during the corresponding phases duration indicated in the URBEMIS input files.
3. The values of Horsepower, Load Factor, and Emission Factor of each type of equipment are from URBEMIS and OFFROADS2007 defaults.

Table 2.1-7 (Continued)
Estimated GHG Emissions from Construction Equipment

Equipment	Total Number of Equipment[1]	Total Equipment Hours[2]	Horsepower[3]	Load Factor[3]	Emission Factor[3] (g/bhp-hr)	CO_2 Emissions[4,5] (tonnes)

4. The CO_2 Emission calculation formula for each piece of equipment is:
   CO_2 Emission = Equipment Hours x HP x Load Factor x Emission Factor x Unit Conversion Factor
5. Assume CO_2 = CO_2e because the contribution of CH_4 and N_2O to overall GHG emissions is likely small (< 1 percent of total CO_2e) from diesel construction equipment.

Source: Table 4-5 of Revised Climate Change Technical Report..

Table 2.1-8
Estimated GHG Emissions from Worker Commutes

Year	Number of Worker One-Way Trips[1]	Total Worker VMT[2] (miles/year)	$EF^{3,7}_{LDA}$		$EF_{LDT1}^{4,7}$		$EF_{LDT2}^{4,7}$		Emission Factor		CO_2 Emissions[5]		Total CO_2 Emissions[6] (tonnes)	Total CO_2e Emissions[6] (tonnes)
			Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)		
2009	152,598	1,937,995	342	210	421	247	424	259	382	232	741	35	776	817
2010	662,908	8,418,929	342	210	421	247	424	259	382	232	3,217	154	3,370	3,548
2011	805,063	10,224,306	342	210	421	247	424	259	382	232	3,907	186	4,093	4,309
2012	1,507,134	19,140,599	342	210	421	247	424	259	382	232	7,314	349	7,663	8,066
2013	1,627,697	20,671,755	342	210	421	247	424	259	382	232	7,899	377	8,276	8,711
2014	1,627,697	20,671,755	342	210	421	247	424	259	382	232	7,899	377	8,276	8,711
2015	1,548,952	19,671,693	342	210	421	247	424	259	382	232	7,517	359	7,875	8,290
2016	1,395,921	17,728,203	304	210	375	247	378	259	340	232	6,029	323	6,352	6,687
2017	1,387,856	17,625,772	304	210	375	247	378	259	340	232	5,994	321	6,315	6,648
2018	1,267,030	16,091,277	304	210	375	247	378	259	340	232	5,472	293	5,766	6,069
2019	1,104,807	14,031,049	304	210	375	247	378	259	340	232	4,772	256	5,027	5,292
2020	419,303	5,325,150	273	210	337	247	339	259	306	232	1,628	97	1,725	1,816
2021	135,584	1,721,913	273	210	337	247	339	259	306	232	526	31	558	587
2022	0	0	273	210	337	247	339	259	306	232	0	0	0	0
2023	0	0	273	210	337	247	339	259	306	232	0	0	0	0
2024	38,884	493,821	273	210	337	247	339	259	306	232	151	9	160	168
2025	48,347	614,006	273	210	337	247	339	259	306	232	188	11	199	209
Total	**13,729,781**	**174,368,222**									**63,252**	**3,180**	**66,432**	**69,928**

Notes:

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
g = gram
GHG = Greenhouse Gas
EF = Emission Factor
GVW = Gross Vehicle Weight
HFC = hydro fluorocarbons
hr = hour
LDA = Light Duty Auto
LDT = Light Duty Truck
MPH = miles per hour
N_2O = nitrous oxide
URBEMIS = Urban Emissions Model
VMT = Vehicle Miles Traveled

1. Worker trips were calculated for all Demolition, Grading and Paving phases as follows:
   a. Operation hours for each piece of machine = 8 hr per day
   b. Number of working days for each type of equipment = total hours of operation/8 hr per day
   c. One-way trips per worker per working day = 2
   d. Worker One-Way Trips = Number of working days x 1.25

   Worker one-way trips during the building construction phase are calculated based on four general land use categories: multifamily, single-family, commercial/retail/school/recreation, and office/industrial. The total daily trips are the sum of the following:

   i. 0.36 * number of multifamily units
   ii. 0.72 * number of single-family units

Table 2.1-8 (Continued)
Estimated GHG Emissions from Worker Commutes

Year	Number of Worker One-Way Trips[1]	Total Worker VMT[2] (miles/year)	$EF^{3,7}_{LDA}$		$EF_{LDT1}^{4,7}$		$EF_{LDT2}^{4,7}$		Emission Factor		CO_2 Emissions[5]		Total CO_2 Emissions[6] (tonnes)	Total CO_2e Emissions[6] (tonnes)
			Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)		

iii. 0.32 * (commercial/retail/school/recreation square feet)/1,000

iv. 0.42 * (office/industrial square feet)/1,000

Worker one-way trips for Coating phase are 20 percent of the worker one-way trips for Building Construction Phase.

2. Vehicle Miles Traveled = Worker One-Way Trips x 12.7 miles per one-way trip, based on URBEMIS default.
3. The running emission factor depends on the speed of the vehicle. The emission factor used in this calculation refers to the URBEMIS 9.2.4 default vehicle speed: 30 mph. The startup emission factor depends on the settling period before driving. The startup emissions were conservatively calculated based on a 12 hour wait before each engine startup.
4. LDT1: up to 6000 GVW; LDT2: up to 8500 GVW.
5. GHG Running Emission calculation formula: GHG Emission = VMT x $(0.5 \times EF_{LDA} + 0.25 \times EF_{LDT1} + 0.25 \times EF_{LDT2})_{Running}$

   GHG Startup Emission calculation formula: GHG Emission = Worker Trips x $(0.5 \times EF_{LDA} + 0.25 \times EF_{LDT1} + 0.25 \times EF_{LDT2})_{Startup}$

   URBEMIS 9.2.4 assumes that LDA and LDT have a 50:50 mixing ratio.
6. $CO_2e = CO_2 / 0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs account for 5 percent of GHG emissions from on-road vehicles, taking into account their global warming potentials.
7. The running emission factor values have been adjusted to account for reductions resulting from the Pavley standards. No changes to the starting emission factors were made. According to ARB, CO_2e emissions from light-duty vehicles would be reduced by 11 percent relative to 2002 in 2016, and by 20 percent relative to 2002 in 2020. For this analysis, reductions were taken relative to estimated emissions for 2009 instead of 2002, which provides a conservative estimate. ENVIRON also conservatively assumed that no reductions would take place from 2009 through 2015, and that no changes in emission factors would occur between 2016 and 2019.

Source: Table 4-6 of Revised Climate Change Technical Report.

Emissions from Worker Commutes) details emission calculations for worker commutes and are based on the following assumptions: (1) URBEMIS defaults assume that half of the workers commute with light-duty trucks (LDTs) and half commute in light-duty automobiles (LDAs); (2) half of the LDTs were assumed to be Type 1 and the other half Type 2; (3) the emission factor depends upon the speed of the vehicle. The URBEMIS default value of 30 miles per hour was used; (3) EMFAC emission factors from the year 2009 were used for EFLDA, EFLDT1, and EFLDT2. The running emission factors for 2016 and later years were adjusted to account for the impact of AB 1493's (Pavley) standards. According to CARB, relative to 2002, CO_2e emissions from light-duty vehicles would be reduced by 11 percent in 2016 and by 20 percent in 2020.[100] Table 2.1-8 (Estimated GHG Emissions from Worker Commutes) summarizes the emission calculations for worker commutes. The total amount of GHG emissions from worker commuting during all phases is a one-time emission of approximately 69,928 tonnes.

Similar to worker commuting trips, GHG emissions emitted from vendor vehicles trips are based on running and startup emissions. The number of daily vendor trips was based on the size and type of buildings specified and URBEMIS defaults. The CO_2 calculation involves the following assumptions: (1) URBEMIS defaults assume that vendor trips use heavy-duty trucks (HDTs); (2) the emission factor depends upon the speed of the vehicle (the URBEMIS default value of 30 miles per hour was used); and (3) EMFAC emission factors from the year 2009 were used for EFHHD. As shown in Table 2.1-9 on page 2-43 (Estimated GHG Emissions from Vendor Trips), the total amount of GHG emissions from vendor trips during construction is a one-time emission of about 48,232 tonnes of CO_2e.

Demolition hauling involves removing material from the site during demolition phases. URBEMIS assumes that each demolition hauling truck carries 20 cubic yards of material and travels 16 miles round-trip. Based on URBEMIS defaults, it is estimated that there will be 372 demolition hauling trips for construction activities. The CO_2 calculation involves the following assumptions: (1) URBEMIS defaults assume that demolition hauling trips use HHTs (2) the emission factor depends upon the speed of the vehicle (the URBEMIS default value of 30 mph was used); and (3) EMFAC emission factors from the year 2009 were used for EFHHD. As shown in Table 2.1-10 on page 2-44 (Estimated GHG Emissions from Demolition Hauling Trips), the total amount of GHG emissions from demolition hauling is a one-time emission of approximately 22 tonnes of CO_2e.

Table 2.1-11 on page 2-45 (Estimated Overall Construction GHG Emissions) shows total one-time GHG emissions for construction, including off-road equipment, worker commuting, vendor trips, and demolition hauling to be approximately 257,552 tonnes CO_2e for the LCRSP development. It should be noted that this analysis utilized the phase length and number of pieces of each type of construction equipment as used in the derivation of criteria pollutants and that the emissions were estimated assuming reasonable worst-day conditions (i.e., maximum equipment usage) for the entire phase duration. As a result, the emission estimates presented are conservative.

[100] California Air Resources Board, Comparison of Greenhouse Gas Reductions for the United States and Canada under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations an Enhanced Technical Assessment, February 25, 2008.

Table 2.1-9
Estimated GHG Emissions from Vendor Trips

Construction Sub-Phase	Number of Vendor Trips	Total Vendor VMT (miles/year)	EF^3_{HHD}		CO_2 Emissions[4]		Total CO_2 Emissions (tonnes)	Total CO_2e Emissions[5,6] (tonnes)
			Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)		
Building Construction	1,803,168	23,982,140	1,905	75	45,686	135	45,821	48,232

Notes:

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
g = gram
GHG = Greenhouse Gas
EF = Emission Factor
GVW = Gross Vehicle Weight
HFC = Hydrofluorocarbons
HHD = Heavy-Heavy Duty
hr = hour
MPH = Miles Per Hour
N_2O = nitrogen dioxide
URBEMIS = Urban Emissions Model
VMT = Vehicle Miles Traveled

1. Vendor trips only occur during the building construction phase, and they are calculated based on four general land use categories: multifamily, single- family, commercial/retail/school/recreation and office/industrial. The total daily trips are the sum of the following:
   i. 0.11 * number of multifamily units
   ii. 0.11 * number of single-family units
   iii. 0.05 * (commercial/retail/school/recreation square ft)/1,000
   iv. 0.38 * (office/industrial square ft)/1,000
2. Vehicle Miles Traveled = Vendor One-Way Trips x 13.3 miles per one-way trip, based on URBEMIS default.
3. The running emission factor depends on the speed of the vehicle. The emission factor used in this calculation refers to the URBEMIS 9.2.4 default vehicle speed: 30 MPH. The startup emission factor depends on the settling period before driving. The startup emissions are conservatively calculated based on a 12 hour wait before each engine startup.
4. URBEMIS 9.2.4 assumes that all vendors drive heavy-heavy-duty trucks.
   CO_2 Running Emission calculation formula: CO_2 Emission = VMT x $EF_{HHD\text{-}Running}$
   CO_2 Startup Emission calculation formula: CO_2 Emission = Vendor Trips x $EF_{HHD\text{-}Startup}$
5. $CO_{2e} = CO_2 / 0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs account for 5 percent of GHG emissions from on-road vehicles, taking into account their global warming potentials.

6. The emission factor values of 2009, the anticipated start date of the project, are used for all calculations.

Source: Table 4-7 of Revised Climate Change Technical Report.

Table 2.1-10
Estimated GHG Emissions from Demolition Hauling Trips

Construction Sub-Phase	Demolition Hauling Round Trips[1]	VMT[2] (miles)	EF^3_{HHD}		CO_2 Emissions[4]		Total CO_2 Emissions (tonnes)	Total CO_2e Emissions[5,6] (tonnes)
			Running (g/mile)	Startup (g/trip)	Running (g/mile)	Startup (g/trip)		
Demolition	372	11,160	1,905	75	21	0	21	22

Notes:

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
g = gram
GHG = Greenhouse Gas
EF = Emission Factor
GVW = Gross Vehicle Weight
HFC = Hydro Fluorocarbons
HHD = Heavy-Heavy Duty
hr = hour
MPH = Miles per hour
N_2O = nitrogen dioxide
URBEMIS = Urban Emissions Model
VMT = Vehicle Miles Traveled

1. Demolition hauling trips only occur during the demolition phase, and they are calculated based on URBEMIS defaults which assume a 20 cubic yard truck driving 30 miles round trip per day. URBEMIS estimates 12 round trips per day for this phase.
2. Vehicle Miles Traveled = Demolition Hauling Trips x 30 miles per roundtrip.
3. The running emission factor depends on the speed of the vehicle. The emission factor used in this calculation refers to the URBEMIS 9.2.4 default vehicle speed: 30 MPH. The startup emission factor depends on the settling period before driving. The startup emissions are conservatively calculated based on a 12 hour wait before each engine startup.
4. URBEMIS 9.2.4 assumes that all demolition haulers drive heavy-heavy-duty trucks.
   CO_2 Running Emission calculation formula: CO_2 Emission = VMT x $EF_{HHD\text{-}Running}$
   CO_2 Startup Emission calculation formula: CO_2 Emission = Demolition Hauler Trips x $EF_{HHD\text{-}Startup}$
5. $CO_{2e} = CO_2 / 0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs account for 5 percent of GHG emissions from on-road vehicles, taking into account their global warming potentials.
6. The emission factor values of 2009, the anticipated start date of the project, are used for all calculations.

Source: Table 4-8 of Revised Climate Change Technical Report.

Table 2.1-11
Estimated Overall Construction GHG Emissions

Location	Construction Equipment (tonnes CO_2e)	Worker Commuting (tonnes CO_2e)	Vendor Commuting (tonnes CO_2e)	Demolition Hauling (tonnes CO_2e)	Total GHG Emissions (tonnes CO_2e)
Lytle Creek	139,370	69,928	48,232	22	257,552

Notes:
CO_2e = carbon dioxide equivalent
GHG = Greenhouse Gas

1. See previous tables for calculation detail. The table includes emissions from construction equipment, worker commuting, vendor commuting, and demolition hauling.
Source: Table 4-9 of Revised Climate Change Technical Report.

- **GHG emissions associated with residential buildings.** The amount of energy and, therefore, the amount of associated GHG emissions emitted per dwelling unit will vary with the type of residential building. The major types of residential buildings associated with the Project are single-family detached (3,409 dwelling units), single-family attached (3,673 dwelling units), and multi-family attached (1,325 dwelling units) units.

  GHG emissions are emitted as a result of activities in residential buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere (when this occurs in a residential building, it is a direct emission source[101] associated with that building). GHG emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a residential building, the electricity generation typically takes place off the site at the power plant (electricity use in a residential building generally causes emissions in an indirect manner).

  While fuel combustion generates CH_4 and N_2O, the emissions of these GHG emissions typically comprise less than 1 percent of CO_2e emissions from electricity generation and natural gas consumption.[102] Fuel oil, kerosene, liquefied petroleum gas, and wood can also be used as fuels but will likely contribute only in small amounts as combustion sources within residential buildings. Wood burning hearths are addressed under "area sources" below.

  Energy use in residential buildings is divided into: (1) energy consumed by the built environment; and (2) energy consumed by uses that are independent of the construction of the building (such as plug-in appliances). In California, Title 24, Parts 1-6 of the CCR (Title 24) governs energy consumed by the built environment, including the heating, ventilation and air conditioning (HVAC) system, water heating, and some fixed lighting. Non-building or "plug-in" energy use can be further subdivided by specific end-uses (such as refrigeration, cooking, and lighting). For the purpose of this analysis, energy use associated with each end use was separately calculated. The resulting energy use quantities were then converted to GHG emissions by multiplying by the appropriate emission factors, incorporating information on local electricity production.[103]

  California's renewable portfolio standard (RPS) requires retail suppliers of electric services to increase procurement from eligible renewable energy resources until they reach 20 percent by 2010. California Executive Order S-14-08 targets a further increase in procurement from eligible renewable energy resources to 33 percent by 2020. The analysis conservatively assumed that 20 percent of the electricity would be from renewable resources, consistent with the currently enacted law. The resulting reduction in the emission factor for SCE was calculated as outlined in Table 2.1-12 on page 2-47 (Emission Factors for Different Energy Sources for Buildings) and applied to these calculations. The emission reductions that would result from a RPS of 33 percent were also calculated for illustrative purposes.

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[101] *Op. Cit.*, General Reporting Protocol, Version 3.0, Chapter 8.

[102] *Ibid*., Tables C1 and C2. The methane and nitrous oxide emission factors are negligible compared to the total CO_2 emission factor for electricity generation in California.

[103] The SCE-specific emission factor for electricity deliveries is 641 pounds CO_2/MWh. Although this emission factor accounts for only CO_2, the emissions associated with N_2O and CH_4 contribute to less than 1 percent of the electricity generation CO_2e emissions.

Table 2.1-12
Emission Factors for Different Energy Sources for Buildings

Energy Source	Scenario	lb CO_2/Source Unit	Source Units
Natural Gas[1]	—	117.0	(MMBTU)
Electricity[2]	without RPS	0.631	(kW-hr)
	2010 RPS (20%)	0.583	
	2020 RPS (33%)	0.488	

Derivation of GHG Emissions from Renewable Power Standards

Renewable Energy Source[3]	Energy Delivered[3] (million kWh)	Percentage of Renewable Energy Delivered (%)
Wind	2,359	21%
Small hydro	449	4%
Biogas	0	0%
Solar	0	6%
Biomass	786	7%
Geothermal	6,965	62%
Total[4]	**11,234**	**100%**
% of Total Energy From Renewables[3]	13%	
% of Total Energy From Non-Renewables	87%	
Total Energy Delivery[4]	83,958,770	
from renewables	11,234,288	
from non-renewables	72,724,482	
CO_2 Emissions per Total Energy Delivered[5]	630.9	lbs CO_2/MWh delivered
Total CO2 Emissions[5]	24,026,108	metric tonnes CO_2
CO_2 Emissions per Total Non-Renewable Energy[6]	728.34	lbs CO_2/MWh delivered
Estimated Emission Factors for Total Energy Delivered[7]		
2010 RPS (20%)	582.7	lbs CO_2/MWh delivered
2020 RPS (33%)	488.0	lbs CO_2/MWh delivered

Notes:

CO_2 = carbon dioxide
lb = pound
RPS = Renewables Portfolio Standard
PUP = Power/Utility Protocol
kW-hr = kilowatt-hour
MMBTU = million British thermal units
MWh = Megawatt-hour

1. Emission factor for natural gas was obtained from CCAR GRP, Table C6.
2. Emission factors as derived below.
3. The renewable energy portfolio for SCE. The renewable energy distribution is based on 2008 data, www.sce.com/PowerandEnvironment/renewables/.
4. Total energy value and emission factor reported for 2007 by SCE in CCAR, www.climateregistry.org/CarrotDocs/26/2007/SCEPUP07r3.xls
5. The amount of CO_2 emissions is provided in Southern California Edison's Power/Utility Protocol (PUP) Report for 2007, www.climateregistry.org/CarrotDocs/26/2007/SCEPUP07r3.xls
6. The emissions metric presented here is calculated based on the total CO_2 emissions divided by the energy delivered from non-renewable sources.
7. The emission factors for total energy delivered are estimated by multiplying the percentage of energy delivered from non-renewable energy by the CO_2 emissions per total non-renewable energy metric calculated above. Two emission factors are

Table 2.1-12 (Continued)
Emission Factors for Different Energy Sources for Buildings

	presented here for the current 20 percent RPS goal for 2010 and the presumed 33 percent RPS for 2020. The estimate provided here and the 2007 PUP report issued by Southern California Edison assume that renewable energy sources do not result in any CO_2 emissions. This is not necessarily true for biogas- and biomass-sourced energy but some consider these sources to be "carbon neutral."
Source:	CCAR GRP, Version 3.1 (January 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; SCE 2007 PUP Report, 2008, www.climateregistry.org/CARROT/public/Reports.aspx; Table 4-13 of Revised Climate Change Technical Report.

◊ **Residential energy use intensity.** CO_2 intensity values (i.e., CO_2 emissions per dwelling unit per year) were developed for the residential building types proposed to be developed using the United States Department of Energy—Energy Information Administration's (EIA) 2005 "Residential Energy Consumption Survey" (RECS) database[104] and estimation methods presented in the NREL's BARBD.[105] Three building types representative of the Project's planned residences were evaluated (i.e., single-family detached, single-family attached, and multifamily units in buildings with five or more units). The methods that were used and the assumptions that were made in estimating energy use are described below.

◊ **Energy use in the built environment.** New Californian homes must be designed to meet building energy-efficiency standards (Title 24). The regulated energy uses include space heating and cooling, domestic hot water heating, and hard-wired lighting. The EIA's 2005 RECS database was used to determine annual energy use for Title 24–regulated uses. Estimates for hardwired lighting are separately discussed below. It is important to note, however, that the RECS dataset is comprised of mostly older buildings, which are typically less energy efficient (on a per square foot basis) than newer buildings constructed to meet increasingly stricter energy-efficiency standards. Although many of the homes in the RECS database are likely less energy efficient than Title 24–compliant buildings, the energy use estimates were used to represent 2001 Title 24–compliant homes. The Title 24 standards have been updated twice (in 2005 and again in 2008) since the RECS study and the CEC has published reports estimating the percentage deductions in energy use resulting from these new standards.[106,107] Because new buildings associated with the Project would conform to the most updated (and most stringent) standards, the analysis accounted for the impact of the Title 24 updates by deducting the estimated percentage savings from the RECS energy use estimates.

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[104] United States Department of Energy, Energy Information Administration, Public Use Microdata, accessed June 16, 2009 (www.eia.doe.gov/emeu/recs/contents.html).

[105] Hendron, Robert, Building America Research Benchmark Definition, Updated December 20, 2007, National Renewable Energy Laboratory Technical Report, NREL/TP-550-42662, January 2008 (http://apps1.eere.energy.gov/buildings/publications/pdfs/building_america/42662.pdf).

[106] California Energy Commission, Impact Analysis: 2005 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings, 2003 (www.energy.ca.gov/title24/2005standards/archive/rulemaking/documents/2003-07-11_400-03-014.PDF).

[107] California Energy Commission, Impact Analysis: 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings, 2007 (www.energy.ca.gov/title24/2008standards/rulemaking/documents/2007-11-07_IMPACT_ANALYSIS.PDF).

The 2005 RECs database analysis provides annual electricity use for the heating and cooling system and annual natural gas usage for both the heating and domestic hot water (DHW) systems per building. HVAC electricity use and natural gas use values are presented in Table 2.1-13 on page 2-50 (Energy Use per Residential Dwelling Unit: Title 24–Regulated Heating and Cooling). Built-in lighting covered by Title 24 was calculated using values from BARBD for hard-wired lighting (as shown in Table 2.1-15 on page 2-52).

Title 24–compliant electricity use (i.e., the sum of heating, cooling and hard-wired lighting electricity use presented in Table 2.1-15) on a per dwelling unit basis is 3,564 kilowatt hours (kWh) per year for single-family detached homes, 2,583 kWh per year for single-family attached homes, and 2,825 kWh per year for multi-family units. Accounting for improvements in Title 24 (2008), electricity use on a per dwelling unit basis is reduced to 924 kilowatt hours (kWh) per year for single-family detached homes, 821 kWh per year for single-family attached homes, and 1,052 kWh per year for multi-family units. Natural gas use for Title 24 uses in Title 24–compliant residences on a per dwelling unit basis is 41 million British thermal units (MBtu) per year for single-family detached homes, 18 MBtu per year for single-family attached homes, and 17 MBtu per year for multi-family units. Accounting for improvements in Title 24 (2008), natural gas use on a per dwelling unit basis is 37 million British thermal units (MBtu) per year for single-family detached homes and 16 MBtu per year for single-family attached homes and for multi-family units.

The Applicant has committed to making all new homes 15 percent more energy efficient than 2008 Energy-Efficiency Standards requirements (on a total daily valuation (TDV) basis). Although annual energy and TDV energy do not necessarily scale linearly with each other, this analysis assumes that all sources covered by Title 24 would uniformly use 15 percent less annual energy. These calculations are shown in Table 2.1-15 on page 2-52 (Estimated Use Per Residential Dwelling Unit).

- **BARBD (major appliances).** Major household appliances such as refrigerators, clothes washers and dryers, dishwashers, and cooking ranges are typically provided with a new residential unit. As a result, the developer/builder has influence on the energy performance of these items. The energy use for these major appliances was estimated using guidance from the NREL's BARBD model. Table 2.1-14 on page 2-51 (Energy Use per Residential Dwelling Unit: Appliances and Plug-Ins) summarizes the estimated major appliance energy use for the three residential dwelling types. The annual electricity use of major appliances is 1,889 kWh per year for single-family detached homes, 1,690 kWh for single-family attached homes, and 1,560 kWh per year for multi-family units. In addition the annual natural gas use of major appliances is 5.6 MBtu per year for single-family detached homes, 4.7 MBtu per year for single-family attached homes, and 4.1 MBtu per year for multi-family units.

  The Applicant has committed to requiring Energy Star appliances for all major appliances rated by Energy Star in newly built residences when the developer/builder supplies appliances with the new home. This includes refrigerators, dishwashers, and clothes washers. There is no Energy Star

Table 2.1-13
Energy Use per Residential Dwelling Unit: Title 24–Regulated Heating and Cooling

	Electricity Delivered (kW-hr/DU/year)									Natural Gas Delivered (MMBTU/DU/yr)						
Type	Average Square Footage per DU[1]	RECs Range[2]	Heating[3]	Cooling	RECs Total	% Reduction Due to 2005 Standards Relative to 2001[4,5]	2005 Estimated Total	% Reduction Due to 2008 vs. 2005 Standards[6]	2008 Estimated Total	Heating[3]	Domestic Hot Water[7]	RECs Total	% Reduction Due to 2005 Standards Relative to 2001[4]	2005 Estimated Total	% Reduction Due to 2008 vs. 2005 Standards[6]	2008 Estimated Total
Single-Family Detached	2,585	1,350–3,450	188	1,303	1,491	19.8%	1,196	22.7%	924	13.3	30.7	44.1	6.7%	41.1	10%	37.0
Single-Family Attached	1,260	700–2,000	393	931	1,324	19.8%	1,062	22.7%	821	4.5	14.5	19.0	6.7%	17.8	10%	16.0
Apartment in Building with 5 or More Units	1,250	1,000–1,500	555	1,177	1,731	24.3%	1,311	19.7%	1,052	3.8	16.6	20.4	15.7%	17.2	7%	16.0

Notes:

DU = Dwelling Unit kW-hr = kilowatt-hour MMBTU = million British thermal units

1. Based on information provided by Lytle Development Company.
2. The 2005 survey collected data from 4,382 households nationwide in housing units statistically selected to represent the 111.1 million housing units in the United States. Only RECS data tabulated for California were considered in this analysis.
3. Homes can be heated using electricity and/or natural gas. The values shown for "Electricity-heating" represent the total heating electricity use of a housing subtype (e.g., apartments) divided by the total housing units of that subtype, which includes homes that use natural gas for heating instead of electricity. Similarly, the values shown for "Natural Gas-heating" represent the total heating natural gas use divided by total housing units of that subtype, which includes homes that use electricity. When comparing heating energy use for different housing types in this table, the combination of average electricity heating use and average natural gas heating use should be considered.
4. Reductions are taken with the assumption that the RECs estimate reflects heating/cooling/hot water electricity use for homes that are minimally compliant with 2001 Title 24 Standards. According to the RECS database, less than 4% of California homes surveyed were built in 2000 or later. Because older homes tend to use more energy, the numbers shown here may overestimate actual energy use. At the same time, the homes included in the data sets have a range of cooling degree days and heating degree days, which affects the heating and cooling-related energy use.
5. Based on report by California Energy Commission on estimated first-year electricity savings due to 2005 standards for single-family and multi-family homes, relative to 2001 standards.
6. Based on California Energy Commission report on estimated first-year electricity savings due to 2008 standards for single-family and multi-family homes, relative to 2005 standards.
7. All domestic hot water systems are assumed to use natural gas.

Source: CEC, 2003, Impact Analysis: 2005 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings, www.energy.ca.gov/title24/2005standards/archive/rulemaking/documents/2003-07-11_400-03-014.PDF; CEC, 2007, Impact Analysis: 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings, www.energy.ca.gov/title24/2008standards/rulemaking/documents/2007-11-07_IMPACT_ANALYSIS.PDF; EIA, 2005, RECS, www.eia.doe.gov/emeu/recs/; Table 4-10 of Revised Climate Change Technical Report.

Table 2.1-14
Energy Use per Residential Dwelling Unit: Appliances and Plug-Ins

		Dwelling Size		Electricity Delivered (kW-hr/DU/year)[2]									Natural Gas Delivered (MMBTU/DU/yr)[2]		
Type	Type	Average Square Footage per DU	Bedrooms per DU[1]	Refrig-erator	Clothes Washer	Clothes Dryer (Electric)[3]	Dish-washer	Cooking Range (Electric)[4]	Total Major Appliances	Plug-in Lighting	MELs	Total	Clothes Dryer (Gas)[6]	Gas Cooking Range[5]	Total
Standard Appliances	Single-Family Detached	2,585	3.8	669	120	520	235	345	1,889	505	622	3,015	3.0	2.6	5.6
	Single-Family Attached	1,260	2.7	669	100	435	197	289	1,690	293	479	2,461	2.5	2.1	4.7
	Apartment in Building with 5 or More Units	1,250	2.0	669	88	380	172	252	1,560	291	446	2,296	2.2	1.9	4.1
Energy Star Appliances[7]	Single-Family Detached	2,585	3.8	569	90	520	141	345	1,665	126	622	2,413	3.0	2.6	5.6
	Single-Family Attached	1,260	2.7	569	75	435	118	289	1,486	73	479	2,038	2.5	2.1	4.7
	Apartment in Building with 5 or More Units	1,250	2.0	569	66	380	103	252	1,369	73	446	1,887	2.2	1.9	4.1

Notes:

BARBD = Building America Research Benchmark Definition
DU = Dwelling Unit
kW-hr = kilowatt-hour
MMBTU = million British thermal units
MEL = Miscellaneous electric load

1. Based on information provided by Lytle Development Company.
2. Energy use per residential DU is based on information in BARBD Table 2.1-15.
3. Dryers may be either electric or natural-gas fueled. This value represents the average of the electricity requirements for the two dryer types.
4. Cooking ranges can be either gas or electric. This value represents 1/2 the energy required for electric stoves.
5. This value represents 50 percent of the natural gas required for natural gas stoves.
6. This value represents 50 percent of the natural gas required for natural gas dryers.
7. Average energy savings above standard products are applied to refrigeration (15 percent), clothes washer (25 percent), dishwasher (40 percent), and lighting (75 percent) as reported in Energy Star and Other Climate Protection Partnerships 2006 Annual Report Table 2.1-13.

Source: R. Hendron, Building America Research Benchmark Definition, Technical Report NREL/TP-550-4816, December 2008; USEPA, 2006 Annual Report, Energy Star and Other Climate Protection Partnerships, www.epa.gov/appdstar/pdf/AR%202006%20Final.pdf; Table 4-11 of Revised Climate Change Technical Report.

Table 2.1-15
Estimated Energy Use per Residential Dwelling Unit

	Dwelling Sizes		Electricity Delivered [kW-hr/DU/year]					Natural Gas Delivered (MMBTU natural gas/DU/year)		
Title 24 Compliance	Type	Average Square Footage/ DU[1]	RECs Heating and Cooling	BARBD[3] Hard-Wired Lighting	BARBD[3] Major Appliances[4,6]	BARBD[3] Plug-ins	Total	RECs Heating and Domestic Hot Water	BARBD[3] Gas Dryers and Oven Ranges[4,6]	Total
Minimally Title 24 Compliant (2005)	Single-Family Detached	2,585	1,196	2,368	1,889	1,126	6,579	41	6	47
	Single-Family Attached	1,260	1,062	1,521	1,690	772	5,044	18	5	22
	Apartment in Building with 5 or More Units	1,250	1,311	1,514	1,560	737	5,121	17	4	21
Minimally Title 24 Compliant (2008)	Single-Family Detached	2,585	924	2,368	1,889	1,126	6,308	37	6	43
	Single-Family Attached	1,260	821	1,521	1,690	772	4,803	16	5	21
	Apartment in Building with 5 or More Units	1,250	1,052	1,514	1,560	737	4,863	16	4	20
15% Better Than Title 24 and Energy Star Appliances[7]	Single-Family Detached	2,585	786	2,013	1,665	748	5,211	31	6	37
	Single-Family Attached	1,260	698	1,292	1,486	552	4,028	14	5	18
	Apartment in Building with 5 or More Units	1,250	894	1,287	1,369	518	4,069	14	4	18
Percentage Improvement Over 2008 Title 24	Single-Family Detached	2,585	15%	15%	12%	34%	17.4%	15%	--	13%
	Single-Family Attached	1,260	15%	15%	12%	28%	16.1%	15%	--	12%
	Apartment in Building with 5 or More Units	1,250	15%	15%	12%	30%	16.3%	15%	--	12%

Notes:

BARBD = Building America Research Benchmark Definition

DU = Dwelling Unit

kW-hr = kilowatt-hour

1. Information provided by Lytle Development Company.
2. Energy use shown is from a Title 24 compliant house.
3. Estimated using guidance provided by the US Department of Energy (Table 12 of "Building America Research Benchmark Definition, Updated December 19, 2008").
4. Cooking may be performed on an electric range or a natural gas stove. The values shown in these columns are 50 percent of the energy/heat used for each stove type.
5. "Plug-ins" refers to electricity use associated with plug-in lighting, plug-in appliances, and miscellaneous electric loads. This energy use is calculated using guidance from BARBD. Energy use for each dwelling type is based on the number of bedrooms, total finished floor area, and a California-specific plug load multiplier. Refer to Table 4-29 for load-specific

Table 2.1-15 (Continued)
Estimated Energy Use per Residential Dwelling Unit

	Dwelling Sizes		Electricity Delivered [kW-hr/DU/year]					Natural Gas Delivered (MMBTU natural gas/DU/year)		
Title 24 Compliance	Type	Average Square Footage/ DU[1]	RECs Heating and Cooling	BARBD[3] Hard-Wired Lighting	BARBD[3] Major Appliances[4,6]	BARBD[3] Plug-ins	Total	RECs Heating and Domestic Hot Water	BARBD[3] Gas Dryers and Oven Ranges[4,6]	Total

energy estimates.

6. Dryers and ovens may be electric or gas. The values presented in this table represent 50 percent of the electricity and/or natural gas use for each equipment type.
7. Lytle Development Company has committed to a 15 percent improvement in energy use in the building envelope over Title 24 standards and inclusion of energy star appliances.

Source: R. Hendron, Building America Research Benchmark Definition, Technical Report NREL/TP-550-4816, December 2008; Table 4-12 of Revised Climate Change Technical Report.

rating for dryers at this time since there is no considerable difference in energy use between different dryer models. Energy Star ratings also are not available for cooking ranges. The average energy improvement for Energy Star–rated appliances over standard appliances as reported in Energy Star Annual Report was used to determine the percent reduction in energy use from major appliances.

Table 2.1-15 on page 2-52 (Estimated Energy Use per Residential Dwelling Unit) shows the calculations for the improvement in energy use from the Applicant's commitment to a 15 percent improvement over 2008 Energy-Efficiency Standards and commitment to requiring Energy Star major appliances where available. This results in a 12-percent reduction in electricity use from major appliances.

- **BARBD (plug-in energy use).** Additional energy use from loads such as plug-in lighting, office equipment, plug-in cooking equipment, and electronics are also part of the anticipated energy use for a residential development. Similar to major appliances, energy use values for plug-in appliances, lighting, and miscellaneous energy loads (MELs) were estimated using guidance from NREL's BARBD. Plug-in lighting energy use was estimated based on the finished floor area, whereas the electricity usage for miscellaneous energy loads (e.g., home entertainment devices, computers, small kitchen appliances) were determined by equations involving the number of bedrooms, finished floor area, and a California-specific load multiplication factor.

  Table 2.1-14 (Energy Use per Residential Dwelling Unit: Appliances and Plug-Ins) summarizes the estimated plug-in energy use for each residence dwelling type. The annual electricity use for plug-in appliances, lighting, and MELs (on a per dwelling unit per year basis) is 1,126 kWh for single-family detached homes, 772 kWh for single-family attached homes, and 737 kWh for multi-family units.

◊ **Estimate of annual GHG emissions from energy use in residential buildings.** Energy use data from Table 2.1-15 (Estimated Energy Use per Residential Dwelling Unit) were multiplied by the emission factors in Table 2.1-12 (Emission Factors for Different Energy Sources for Buildings) to generate CO_2 intensity values (i.e., CO_2 emissions per dwelling unit) for each building type. Emission factors taking into account reductions from a 20 percent RPS were used. In comparison, Table 2.1-16 on page 2-55 (CO_2e Emissions per Dwelling Unit with 2020 Renewable Portfolio Standards) shows the reductions in CO_2 intensity that would be achieved if the 33 percent RPS for 2020 (per Executive Order S-14-08) were implemented.

The developer/builder has control over energy use for the built environment and the initial major appliances. As shown in Table 2.1-17 on page 2-57 (Estimated CO_2e Emissions per Dwelling Unit), the homes that are 15 percent more energy efficient than 2008 Energy-Efficiency Standards have lower CO_2 emissions. When combined with Energy Star appliances, the single-family detached homes, single-family attached homes, and multi-family units emit 16 percent less CO_2 per year than standard homes for the built environment (Title 24 Systems) and major appliances. When plug-in loads are considered, the single-family detached

Table 2.1-16
CO_2e Emissions per Dwelling Unit with 2020 Renewable Portfolio Standards

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Type	DU per Building	Average SF/DU[2]	Title-24 Systems[1]		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs		Title-24 Systems	Title-24 Systems and Major Appliances	Title-24 Systems and All MELs
				CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Total (tonnes/ DU/year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/ DU/year)
Minimally Title 24 Compliant (2005) without RPS	Single-Family Detached	1	2,585	2,249	4,809	3,440	5,462	4,151	5,462	3.2	4.0	4.4
	Single-Family Attached	2 to 4	1,260	1,629	2,077	2,695	2,624	3,182	2,624	1.7	2.4	2.6
	Apartment in Building with 5 or More Units	5 or more	1,250	1,782	2,010	2,766	2,488	3,231	2,488	1.7	2.4	2.6
Minimally Title 24 Compliant (2008) without RPS	Single-Family Detached	1	2,585	2,077	4,328	3,269	4,981	3,980	4,981	2.9	3.7	4.1
	Single-Family Attached	2 to 4	1,260	1,477	1,869	2,543	2,416	3,030	2,416	1.5	2.2	2.5
	Apartment in Building with 5 or More Units	5 or more	1,250	1,619	1,870	2,603	2,347	3,068	2,347	1.6	2.2	2.5
15% Better Than Title 24, Energy Star Appliances and 2020 RPS[5,6]	Single-Family Detached	1	2,585	1,366	3,679	2,178	4,332	2,543	4,332	2.3	3.0	3.1
	Single-Family Attached	2 to 4	1,260	971	1,589	1,696	2,136	1,966	2,136	1.2	1.7	1.9
	Apartment in Building with 5 or More Units	5 or more	1,250	1,064	1,589	1,733	2,067	1,985	2,067	1.2	1.7	1.8
Percentage Improvement over 2008 Title 24 without RPS	Single-family detached	1	2,585	34%	15%	33%	13%	36%	13%	21%	21%	23%
	Single-family attached	2 to 4	1,260	34%	15%	33%	12%	35%	12%	23%	23%	25%
	Apartment in building with 5 or more units	5 or more	1,250	34%	15%	33%	12%	35%	12%	24%	23%	25%

Table 2.1-16 (Continued)
CO2e Emissions per Dwelling Unit with 2020 Renewable Portfolio Standards

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Type	DU per Building	Average SF/DU[2]	Title-24 Systems[1]		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs		Title-24 Systems	Title-24 Systems and Major Appliances	Title-24 Systems and All MELs
				CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Total (tonnes/ DU/year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/ DU/year)

Notes:
DU = Dwelling Unit
kW-hr = kilowatt-hour
lb = pound
RPS = Renewables Portfolio Standard
SF = Square Feet

1. Title 24—California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code.
2. Information provided by Lytle Development Company.
3. Converted from kW-hr to lb CO_2 using emission factor from the California Climate Action Registry Database: Southern California Edison Company 2006 PUP Report. 2008.
4. Converted from MMBTU to lb CO_2 using emission factor from California Climate Action Registry General Reporting Protocol (CCAR GRP).
5. Lytle Development Company has committed to a 15 percent improvement in energy use in the building envelope over Title 24 standards and inclusion of energy star appliances.
6. The project emissions take into account implementation of the 2020 Renewables Portfolio Standard.

Source: CCAR General Reporting Protocol, Version 3.1 (June 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; CCAR Database, Southern California Edison Company 2006 PUP Report. 2008, www.climateregistry.org/CARROT/public/Reports.aspx; Table 4-15 of Revised Climate Change Technical Report.

Table 2.1-17
Estimated CO_2e Emissions per Dwelling Unit

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Type	DU per Building	Average SF/DU[2]	Title-24 Systems[1]		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs		Title-24 Systems	Title-24 Systems and Major Appliances	Title-24 Systems and All MELs
				CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/ DU/year)
Minimally Title 24 Compliant (2005) without RPS	Single-Family Detached	1	2,585	2,249	4,809	3,440	5,462	4,151	5,462	3.2	4.0	4.4
	Single-Family Attached	2 to 4	1,260	1,629	2,077	2,695	2,624	3,182	2,624	1.7	2.4	2.6
	Apartment in Building with 5 or More Units	5 or more	1,250	1,782	2,010	2,766	2,488	3,231	2,488	1.7	2.4	2.6
Minimally Title 24 Compliant (2008) without RPS	Single-Family Detached	1	2,585	2,077	4,328	3,269	4,981	3,980	4,981	2.9	3.7	4.1
	Single-Family Attached	2 to 4	1,260	1,477	1,869	2,543	2,416	3,030	2,416	1.5	2.2	2.5
	Apartment in Building with 5 or More Units	5 or more	1,250	1,619	1,870	2,603	2,347	3,068	2,347	1.6	2.2	2.5
15% Better Than Title 24, Energy Star Appliances and 2010 RPS[5,6]	Single-Family Detached	1	2,585	1,631	3,679	2,601	4,332	3,036	4,332	2.4	3.1	3.3
	Single-Family Attached	2 to 4	1,260	1,160	1,589	2,025	2,136	2,347	2,136	1.2	1.9	2.0
	Apartment in Building with 5 or More Units	5 or more	1,250	1,271	1,589	2,069	2,067	2,371	2,067	1.3	1.9	2.0
Percentage Improvement over 2008 Title 24 without RPS	Single-Family Detached	1	2,585	21%	15%	20%	13%	24%	13%	17%	16%	18%
	Single-Family Attached	2 to 4	1,260	21%	15%	20%	12%	23%	12%	18%	16%	18%
	Apartment in Building with 5 or More Units	5 or more	1,250	21%	15%	21%	12%	23%	12%	18%	16%	18%

Table 2.1-17 (Continued)
Estimated CO2e Emissions per Dwelling Unit

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Type	DU per Building	Average SF/DU[2]	Title-24 Systems[1]		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs		Title-24 Systems	Title-24 Systems and Major Appliances	Title-24 Systems and All MELs
				CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Electricity[3] (lbs/DU/ year)	CO_2 Natural Gas[4] (lbs/DU/ year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/DU/ year)	CO_2 Total (tonnes/ DU/year)

Notes:

DU = Dwelling Unit

kW-hr = kilowatt-hour

lb = pound

RPS = Renewable Portfolio Standard

SF = Square Feet

1. Title 24—CCR, Title 24, also known as the California Building Standards Code.
2. Information provided by Lytle Development Company.
3. Converted from kW-hr to lb CO_2 using emission factor from the California Climate Action Registry Database: Southern California Edison Company 2006 PUP Report. 2008.
4. Converted from MMBTU to lb CO_2 using emission factor from California Climate Action Registry General Reporting Protocol (CCAR GRP).
5. Lytle Development Company has committed to a 15 percent improvement in energy use in the building envelope over Title 24 standards and inclusion of energy star appliances.
6. The project emissions take into account implementation of the 2010 Renewables Portfolio Standard.

Source: CCAR General Reporting Protocol, Version 3.1 (June 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; CCAR Database, Southern California Edison Company 2006 PUP Report, 2008, www.climateregistry.org/CARROT/public/Reports.aspx; Table 4-14 of Revised Climate Change Technical Report.

homes, single-family attached homes and multi-family units emit 18 percent less CO_2 per year than the Title 24–compliant homes without Energy Star appliances.

Table 2.1-18 on page 2-60 (CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units) shows the yearly CO_2 emissions from the Project by incorporating the emission factors from Table 2.1-17 (Estimated CO_2e Emissions per Dwelling Unit), and the number of dwelling units for each residential dwelling type for Title 24–compliant systems. In contrast, Table 2.1-19 on page 2-62 (CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units with 2020 Renewable Portfolio Standards) shows the CO_2 emissions from residential energy taking into account the 33 percent RPS for 2020 described in Executive Order S-14-08.

Table 2.1-18 (CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units) shows the yearly CO_2 emissions from the Project by incorporating the aforementioned emission factors and the number of dwelling units for each building type for Title 24–compliant systems and all plug-in energy. Total CO_2 emissions would be approximately 27,975 tonnes per year without improvements over Title 24 (2005) and without renewable energy. With 15 percent improvements over 2008 Energy- Efficiency Standards, Energy Star appliances, and without renewable energy, annual CO_2 emissions would be reduced to 21,530 tonnes per year, representing a 23 percent reduction in GHG emissions. As shown in Table 2.1-19, the 2020 RPS would further reduce emissions to 19,900 tonnes per year representing a 29 percent reduction in GHG emissions.

- These CO_2 emission estimates do not take into account the State's requirement for developers/builders to offer solar panels as an option to homeowners. It is unknown how many future homeowners will chose this option, therefore, while the exact reduction in CO_2 emissions due to this feature cannot be quantified it will decrease the CO_2 emissions for those residential buildings that choose to install renewable energy.

- **GHG emissions associated with non-residential buildings.** Non-residential buildings include all structures except residences that may exist in a development, such as government, municipal, commercial, retail, and office space. Presented below is a description of the methodology used to estimate the GHGs associated with activities in non-residential buildings.

  The amount of energy used and the associated GHG emissions emitted per square foot of available space vary with the type of non-residential building. For example, food stores are far more energy intensive than warehouses, which have little climate-conditioned space. For new developments, the exact types of buildings are typically unknown. As such, not all building categories that may actually exist within the LCRSP boundaries are represented below; however, all of the non-residential building area is accounted for and the accompanying tables present the differences in energy intensities from building types. The types of non-residential buildings include office, commercial, and school.

  Similar to the case for residential buildings, GHG emissions are emitted as a result of activities in non-residential buildings for which electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere (when this occurs in a non-residential building this is a direct emission

Table 2.1-18
CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Housing Type	Number of Dwelling Units[2]	Title-24 Systems			Title-24 Systems and Major Appliances			Title-24 Systems and All MELs		
			CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)		CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)		CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	
Minimally Title 24 Compliant (2005) without RPS	Single-Family Detached	3,409	3.2	10,913	**19,367**	4.0	13,766	**25,786**	4.4	14,865	**27,975**
	Single-Family Attached	3,673	1.7	6,175		2.4	8,862		2.6	9,673	
	Apartment in Building with 5 or More Units	1,325	1.7	2,279		2.4	3,158		2.6	3,437	
Minimally Title 24 Compliant (2008) without RPS	Single-Family Detached	3,409	2.9	9,904	**17,576**	3.7	12,758	**23,995**	4.1	13,856	**26,184**
	Single-Family Attached	3,673	1.5	5,575		2.2	8,262		2.5	9,073	
	Apartment in Building with 5 or More Units	1,325	1.6	2,097		2.2	2,975		2.5	3,254	
15% Better Than Title 24 and Energy Star Appliances and 2010 RPS[3,4]	Single-Family Detached	3,409	2.4	8,210	**14,508**	3.1	10,721	**20,138**	3.3	11,394	**21,530**
	Single-Family Attached	3,673	1.2	4,579		1.9	6,933		2.0	7,468	
	Apartment in Building with 5 or More Units	1,325	1.3	1,719		1.9	2,485		2.0	2,667	
Percentage Improvement Over Title 24 (2005) without RPS	Single-Family Detached	3,409	17%	17%	**17%**	16%	17%	**16%**	18%	17%	**23%**
	Single-Family Attached	3,673	18%	18%		16%	17%		18%	17%	
	Apartment in Building with 5 or More Units	1,325	18%	18%		16%	17%		18%	17%	

Table 2.1-18 (Continued)
CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units

Title 24[1] Compliance and Electricity CO_2 Emission Factor	Housing Type	Number of Dwelling Units[2]	Title-24 Systems		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs	
			CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)

Notes:

CO_2 = carbon dioxide

DU = Dwelling Units

MEL = Miscellaneous electric loads

RPS = Renewables Portfolio Standard

1. Title 24—CCR, Title 24, also known as the California Building Standards Code.
2. Information provided by Lytle Development Company.
3. Lytle Development Company has committed to a 15 percent improvement in energy use in the building envelope over Title 24 standards and inclusion of energy star appliances.
4. The project emissions take into account implementation of the 2010 Renewables Portfolio Standard.

Source: CCAR General Reporting Protocol, Version 3.0 (April 2008), www.climateregistry.org/resources/docs/protocols/grp/GRP_V3_April2008_FINAL.pdf; CCAR General Reporting Protocol, Version 3.1 (January 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; Table 4-16 of Revised Climate Change Technical Report.

Table 2.1-19
CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units with 2020 Renewable Portfolio Standards

Title 24[1] Compliance	Housing Type	Number of Dwelling Units[2]	Title-24 Systems			Title-24 Systems and Major Appliances			Title-24 Systems and All MELs		
			CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)		CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)		CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	
Minimally Title 24 Compliant (2005) and Electricity CO_2 Emission Factor	Single-Family Detached	3,409	3.2	10,913	**19,367**	4.0	13,766	**25,786**	4.4	14,865	**27,975**
	Single-Family Attached	3,673	1.7	6,175		2.4	8,862		2.6	9,673	
	Apartment in Building with 5 or More Units	1,325	1.7	2,279		2.4	3,158		2.6	3,437	
Minimally Title 24 Compliant (2008) without RPS	Single-Family Detached	3,409	2.9	9,904	**17,576**	3.7	12,758	**23,995**	4.1	13,856	**26,184**
	Single-Family Attached	3,673	1.5	5,575		2.2	8,262		2.5	9,073	
	Apartment in Building with 5 or More Units	1,325	1.6	2,097		2.2	2,975		2.5	3,254	
15% Better Than Title 24 and Energy Star Appliances and 2020 RPS[3,4]	Single-Family Detached	3,409	2.3	7,800	**13,660**	3.0	10,067	**18,734**	3.1	10,631	**19,900**
	Single-Family Attached	3,673	1.2	4,265		1.7	6,384		1.9	6,833	
	Apartment in Building with 5 or More Units	1,325	1.2	1,595		1.7	2,283		1.8	2,435	
Percentage Improvement over Title 24 (2005) without RPS	Single-Family Detached	3,409	29%	29%	**29%**	27%	27%	**27%**	28%	28%	**29%**
	Single-Family Attached	3,673	31%	31%		28%	28%		29%	29%	
	Apartment in Building with 5 or More Units	1,325	30%	30%		28%	28%		29%	29%	

Table 2.1-19 (Continued)
CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units with 2020 Renewable Portfolio Standards

Title 24[1] Compliance	Housing Type	Number of Dwelling Units[2]	Title-24 Systems		Title-24 Systems and Major Appliances		Title-24 Systems and All MELs	
			CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)	CO_2 Emission Factor (tonne CO_2/ DU/year)	Total CO_2 Emissions (tonne CO_2/year)

Notes:

CO_2 = carbon dioxide

DU = Dwelling Units

MEL = Miscellaneous electric loads

RPS = Renewables Portfolio Standard

1. Title 24—CCR, Title 24, also known as the California Building Standards Code.
2. Information provided by Lytle Development Company.
3. Lytle Development Company has committed to a 15 percent improvement in energy use in the building envelope over Title 24 standards and inclusion of energy star appliances.
4. The project emissions take into account implementation of the 2010 Renewables Portfolio Standard.

Source: CCAR General Reporting Protocol, Version 3.0 (April 2008), www.climateregistry.org/resources/docs/protocols/grp/GRP_V3_April2008_FINAL.pdf; CCAR General Reporting Protocol, Version 3.1 (January 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; Table 4-17 of Revised Climate Change Technical Report.

source associated with that building). GHG emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a non-residential building, the electricity generation typically takes place off the site at the power plant (electricity use in a non-residential building generally causes emissions in an indirect manner).

While fuel combustion generates CH_4 and N_2O, the emissions of these GHGs typically comprise less than 1 percent of CO_2e emissions from electricity generation and natural gas consumption.[108] Fuel oil, kerosene, liquefied petroleum gas, and wood can also be used as fuels but generally contribute only in small amounts as combustion sources within non-residential buildings. As such, these minor emissions are not accounted for here.

Similar to energy use in residential buildings, energy use in non-residential buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building, such as plug-in appliances. In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some fixed lighting. Non-building energy use or plug-in energy use can be further subdivided by specific end-use. In order to quantify energy use due to non-residential buildings energy use was calculated from systems covered by Title 24 (HVAC system, water heating system, and the lighting system) and office equipment, plug-in lighting, and other sources not covered by Title 24.

The resulting energy use quantities were then converted to GHG emissions by multiplying by the appropriate emission factors obtained by incorporating information on local electricity production.

The methodologies employed to estimate GHG emissions is presented below. The units CO_2 and CO_2e are used interchangeably for non-residential buildings because CH_4 and N_2O are assumed to contribute a negligible[109] amount of GWP when compared to the CO_2 emissions from non-residential buildings.

◊ **Non-residential energy use intensity.** Using data from the California Commercial End-Use Survey (CEUS),[110] the GHG analysis formulated CO_2 intensity values (CO_2 emissions per square foot per year) for building types allowable under the proposed LCRSP. The methodology used to estimate these emissions are described below.

The overall electricity use for the building types was calculated based on data provided by the CEC.[111] The building types and subcategories are shown in Table 2.1-20 on page 2-65 (Electricity End-Use Distribution for Non-Residential

[108] *Op. Cit.*, General Reporting Protocol, Version 3.0, Tables C1 and C2. The methane and nitrous oxide emission factors are negligible compared to the total CO_2 emission factor for electricity generation in California.

[109] The SCE specific emission factor for electricity deliveries is 631 pounds CO_2/MWh. Although this emission factor accounts for only CO_2, the emissions associated with N_2O and CH_4 contribute to less than 1 percent of the electricity generation CO_2e emissions.

[110] California Energy Commission, California Commercial End-Use Survey Results, March 2006 (http://capabilities.itron.com/CeusWeb/Chart.aspx).

[111] California Energy Commission (Itron, Inc.), Workbooks for "SCE—FCZ10," accessed on June 12, 2009 (http://capabilities.itron.com/CeusWeb/Chart.aspx).

Table 2.1-20
Electricity End-Use Distribution For Non-Residential Building Types

CEUS Building Type	Air Compressors	Cooking	Cooling	Exterior Lighting	Heating	Interior Lighting	Miscellaneous	Motors	Office Equipment	Process	Refrigeration	Ventilation	Water Heating
All Commercial	1.0%	4%	18%	7%	1%	30%	7%	5%	4%	0.3%	12%	11%	1%
School	—	1%	26%	9%	0.4%	38%	3%	1.0%	6%	—	4%	11%	1.0%
Included in Title 24 Building Envelope Energy Budget?[1]	No	No	Yes	No	Yes	No	No	No	No	No	No	Yes	Yes

Notes:

CEUS = California Commercial End-Use Survey

1. Only end uses regulated by Title 24 are included in the Title 24 building envelope energy budget. Hard-wired lighting (exterior lighting and some interior lighting) are part of Title 24, but are not considered part of the building envelope energy budget.

Source: CEUS. Performed by Itron, under contract to the California Energy Commission, 2006; Table 4-19 of Revised Climate Change Technical Report.

Building Types) which also provides the mapping used to relate the proposed project's building types to CEUS building types. The CEUS data is based on a survey conducted in 2002 of existing buildings. Each building type has a characteristic electricity and natural gas use per square foot of building space. Electricity use per square foot (electricity intensity) for each building sample was extracted from the CEUS data. Similarly, the natural gas use per square foot (natural gas intensity) for each building sample was also extracted.

For this analysis, energy use was based upon buildings in California's Climate Zone 10. Table 2.1-20 (Electricity End-Use Distribution for Non-Residential Building Types) lists the breakdown of electricity use among several end uses for electricity in various non-residential building types. Table 2.1-21 on page 2-66 (Natural Gas End-Use Distribution for Non-Residential Building Types) lists the percentage breakdown of end uses for natural gas in various non-residential building types. The end-use data provide an estimate of the percent of the total energy use comprised by Title 24–regulated (built environment) and plug-in electricity in each building type. The Title 24–regulated electricity use (cooling, space heating, water heating, lighting, ventilation) and the non-built electricity use (e.g., office equipment, refrigeration, cooking) are presented in Table 2.1-20 (Electricity End-Use Distribution for Non-Residential Building Types). The Title 24–regulated natural gas use and the non-built natural gas use (primarily from cooking) are presented in Table 2.1-21 (Natural Gas End-Use Distribution for Non-Residential Building Types).

The electricity and natural gas use per square foot for each building type are converted to GHG emissions as shown below.

◊ **Annual GHG emissions from non-residential buildings.** The Applicant has committed to making all new non-residential buildings 15 percent more energy efficient than 2008 Energy-Efficiency Standards or 15 percent more energy efficient on a TDV basis. This analysis also assumed that all sources covered by Title 24 would uniformly use 15 percent less annual energy. These calculations are shown in Table 2.1-22 on page 2-68 (Energy Usage and Resulting GHG Emissions for Non-Residential Building Types). Non-Title 24–regulated energy use is assumed to still use the same amount of energy as a minimally Title 24–compliant building. There is no credit taken for any Energy Star appliances in the non-residential building category since it is difficult to determine which appliances may be present in the various non-residential building categories. In addition these are generally not supplied with the building. Baseline Title 24 usage rates have been adjusted to reflect improvements in Title 24 building codes since their introduction in 2002. The CEC presents average savings for improvements from 2002 to 2005 as well as from 2005 to 2008. These CEC average savings percentages were used to account for reductions in energy use. The average savings percentages are: (1) 8.5 and 4.9 percent reduction for electricity in 2005 and 2008, respectively; and (2) 5.8 and 9.4 percent reduction for natural gas in 2005 and 2008, respectively. This methodology results in a reduction of energy use for all building types. Because plug-ins are not covered under Title 24, the decrease in energy use is typically less than 15 percent, yet still substantial. For instance, GHG emissions in office buildings decreased from 3.50 to 3.00 tonnes CO2e per 1,000 square feet; representing a 14 percent decrease in GHG emissions.

Table 2.1-21
Natural Gas End-Use Distribution For Non-Residential Building Types

CEUS Building Type	Cooking	Cooling	Heating	Miscellaneous	Process	Water Heating
All Commercial	18%	1%	29%	0.7%	18%	33%
School	11%	—	47%	0.2%	7%	35%
Included in Title 24 Building Envelope Energy Budget?[1]	No	No	Yes	No	No	Yes

Notes:
CEUS = California Commercial End-Use Survey
1. Only end uses regulated by Title 24 are included in the Title 24 building envelope energy budget.
Source: CEUS. Performed by Itron, under contract to the CEC, 2006; Table 4-20 of Revised Climate Change Technical Report.

Energy use data from Table 2.1-20 (Electricity End-Use Distribution for Non-Residential Building Types) and Table 2.1-21 (Natural Gas End-Use Distribution for Non-Residential Building Types) were multiplied by the emission factors presented in Table 2.1-23 on page 2-69 (Emission Factors by Energy Source) to generate CO_2 intensity values (CO_2 emissions per square foot of building area). The results are shown in Table 2.1-22 (Energy Usage and Resulting GHG Emissions for Non-Residential Building Types). The CO_2 intensity values presented therein represent the non-residential building types described earlier. The annual CO_2 emissions for different building types range from 2.44 tonnes per 1,000 square feet for schools to 3.75 tonnes per 1,000 square feet for commercial space.

Table 2.1-22 (Energy Usage and Resulting GHG Emissions for Non- Residential Building Types) also shows the yearly CO_2 emissions from the Project's development by incorporating the emission factors developed (as discussed above) and the square footage of each of the main building categories. Due to the project design feature of reducing built energy use 15 percent below 2008 Energy-Efficiency Standards, a reduction of approximately 551 tonnes of CO_2 per year is realized from the non-residential buildings or about 11 percent of the CO_2 emissions associated with non-residential buildings. These measures bring the overall CO_2 emissions associated with non-residential energy use down to approximately 4,386 tonnes CO_2 per year. As shown in Table 2.1-24 on page 2-70 (Energy Usage and Resulting GHG Emissions For Non-Residential Building Types With 2020 RPS), the 2020 RPS would further reduce emissions to 3,843 tonnes per year representing a 22 percent reduction in GHG emissions.

- **GHG emissions associated with mobile sources.** GHG emissions from mobile sources were estimated as part of this analysis. The mobile source emissions considered for this project will be from the typical daily operation of motor vehicles by project residents.

Table 2.1-22
Energy Usage And Resulting GHG Emissions For Non-Residential Building Types

CEUS Building Type	Total Area [SF]	Energy Source	Unit	Baseline		15 Percent Improvement over Title 24 and RPS		Baseline	Annual Total (with 15 Percent Improvement over Title 24 and RPS)	
				Usage Rate[1] [Unit/SF-yr] Title 24[2,3] Non-Title 24[4]	CO_2e EF[5] [tonnes/ SF-yr]	Usage Rate[6] [Unit/ SF-yr]	CO_2e EF[5] [tonnes/ SF-yr]	CO_2e Emissions[5] [tonnes/yr]	Usage[7] [Unit/yr]	CO_2e Emissions[5] [tonnes/yr]
All Commercial	849,420	Electricity	kWh	3.58 + 9.01 = 12.59	3.60E-03	12.05	3.19E-03	3.06E+03	10,237,481	2,706
		Natural Gas	kBTU	13.43 + 9.35 = 22.78	1.21E-03	20.76	1.10E-03	1.03E+03	17,637,123	936
School	261,360	Electricity	kWh	3.40 + 6.30 = 9.70	2.78E-03	9.19	2.43E-03	7.25E+02	2,401,816	635
		Natural Gas	kBTU	7.19 + 1.79 = 8.98	4.77E-04	7.90	4.20E-04	1.25E+02	2,066,037	110
Grand Total Area	**1,110,780**									
Electricity Total								**3,786**	**12,639,297**	**3,341**
Natural Gas Total								**1,151**	**19,703,160**	**1,046**
Grand Total										**4,386**

Notes:

CEC = California Energy Commission
CEUS = California Commercial End-Use Survey
CO_2e = carbon dioxide equivalent
EF = emission factor
GHG = greenhouse gas
kBTU = kilo (1000) British thermal units
RPS = Renewables Portfolio Standard
SCE = Southern California Edison
SF = square feet
tonnes = metric tones
yr = year

1. Baseline usage rates were taken from the 2006 CEUS, performed by Itron under contract to the CEC. ENVIRON used data for SCE, Zone 10, which is the sector in which the Lytle Creek Ranch development is located.
2. Baseline Title 24 usage rates shown in this table have been adjusted to reflect improvements in Title 24 building codes since their introduction in 2002. CEC discusses average savings for improvements from 2002 to 2005 ("Impact Analysis for 2005 Energy Efficiency Standards") as well as from 2005 to 2008 ("Impact Analysis 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings"). ENVIRON used these CEC average savings percentages, which are: for electricity: 7.7 percent reduction in 2005 and 4.9 percent reduction in 2008; for gas: 3.2 percent reduction in 2005 and 9.4 percent reduction in 2008.3. Includes only Title 24–regulated building envelope uses of electricity (heating, cooling, ventilation, water heating) and gas (heating, water heating), as discussed in footnote 1 of Table 2.1-21.
4. Includes all other uses of electricity (cooking, refrigeration, exterior lighting, interior lighting, office equipment, miscellaneous, process, motors, air compressors) and gas (cooling, cooking, miscellaneous, process) not included in the Title 24–regulated building envelope, as discussed in footnote 3 above.
5. GHG EF are calculated by multiplying the corresponding usage rates or usages by the conversion factors listed in Table 2.1-23.
6. The usage rate with 15 percent improvement over Title 24 is calculated as the baseline Title 24 usage reduced by 15 percent plus the baseline non-Title 24 usage.
7. The total annual usage is calculated as the usage rate (with 15 percent improvement over Title 24) multiplied by the total area.

Source: Table 4-22 of Revised Climate Change Technical Report.

Table 2.1-23
Emission Factors By Energy Source

Energy Source	Scenario	Unit	Conversion Factor [lb CO_2/Unit]	Conversion Factor [tonne CO_2/Unit]
Electricity[1]	without RPS[3]	kWh	0.631	2.86E-04
	2010 RPS (20%)		0.583	2.64E-04
	2020 RPS (33%)		0.488	2.21E-04
Natural Gas[2]	—	kBTU	0.117	5.31E-05

Notes:
CO_2e = carbon dioxide equivalent
kBTU = 1,000 British thermal units
kWh = kilowatt-hour
lb = pound
RPS = Renewables Portfolio Standard
1. Emission factor for electricity provided by Southern California Edison for the year 2006, obtained from the California Climate Action Registry Database.
2. Emission factor for natural gas obtained from California Climate Action Registry Reporting Protocol, Table C7.
3. Estimated emission factors for total energy delivered before and after implementation of the Renewables Portfolio Standard. See Table 6-1 for derivation of these factors.

Source: CCAR GRP, Version 3.1 (January 2009), www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf; CCAR Database, SCE 2007 PUP Report, 2008, www.climateregistry.org/CARROT/public/Reports.aspx; Table 4-21 of Revised Climate Change Technical Report.

GHG emissions were estimated based upon all miles traveled by project residents, regardless of internal or external destinations or purpose of trip. Traffic patterns, trip rates, and trip lengths are based upon URBEMIS methodology and defaults.

With regard to the assessment of GHG emissions, mobile source emissions from new residences are reasonably considered to be growth, as residences are rarely removed from the housing supply once constructed;[112] however, it is less clear that commercial development should be considered new growth for vehicular travel purposes. To the extent that commercial development serves existing residential development its vehicular travel may not be new. For instance, if the new commercial area serves an area with a high residential/ commercial balance, then this new commercial growth will reduce shopping and work trip lengths and will reduce GHG emissions associated with mobile sources. If, however, the new commercial area results in longer trips for its workers and residents than they would have previously made, then it adds GHG emissions. Commercial development that could potentially increase VMT would be facilities that draw trips from far away that otherwise would not be made (e.g., a theme park, for example, may be viewed as such a development).

With regard to GHG emission, it is assumed that proposed new non-residential (i.e., office space, retail space, and industrial buildings) development will serve an area with a high residential/non-residential balance; therefore, this new non-residential growth will not, independent of the new residential areas, result in new shopping and work trips.

[112] There are exceptions, such as when one housing development replaces another, and, in those cases, the replacement residential development need not be considered growth.

Table 2.1-24
Energy Usage and Resulting GHG Emissions For Non-Residential Building Types With 2020 RPS

CEUS Building Type	Total Area [SF]	Energy Source	Unit	Baseline: Usage Rate[1] [Unit/SF-yr] Title 24[2,3] Non-Title 24[4]	Baseline: CO_2e EF[5] [tonnes/ SF-yr]	15 Percent Improvement over Title 24 and RPS: Usage Rate[6] [Unit/ SF-yr]	15 Percent Improvement over Title 24 and RPS: CO_2e EF[5] [tonnes/ SF-yr]	Baseline: CO_2e Emissions[5] [tonnes/yr]	Annual Total (with 15 Percent Improvement over Title 24 and RPS): Usage[7] [Unit/yr]	Annual Total (with 15 Percent Improvement over Title 24 and RPS): CO_2e Emissions[5] [tonnes/yr]
All Commercial	849,420	Electricity	kWh	3.58 + 9.01 = 12.59	3.60E-03	12.05	2.67E-03	3.06E+03	10,237,481	2,265,936
		Natural Gas	kBTU	13.43 + 9.35 = 22.78	1.21E-03	20.76	1.10E-03	1.03E+03	17,637,123	
School	261,360	Electricity	kWh	3.40 + 6.30 = 9.70	2.78E-03	9.19	2.03E-03	7.25E+02	2,401,816	532
		Natural Gas	kBTU	7.19 + 1.79 = 8.98	4.77E-04	7.90	4.20E-04	1.25E+02	2,066,037	110
Grand Total Area	**1,110,780**									
Electricity Total								**3,786**	**12,639,297**	**2,798**
Natural Gas Total								**1,151**	**19,703,160**	**1,046**
Grand Total										**3,843**

Notes:

CEC = California Energy Commission
CEUS = California Commercial End-Use Survey
CO_2e = carbon dioxide equivalent
EF = emission factor
GHG = greenhouse gas
kBTU = kilo (1000) British thermal units
RPS = Renewables Portfolio Standard
SCE = Southern California Edison
SF = square feet
tonnes = metric tonnes
yr = year

1. Baseline usage rates were taken from the 2006 CEUS, performed by Itron under contract to the CEC. ENVIRON used data for SCE, Zone 10, which is the sector in which the Lytle Creek Ranch development is located.
2. Baseline Title 24 usage rates shown in this table have been adjusted to reflect improvements in Title 24 building codes since their introduction in 2002. CEC discusses average savings for improvements from 2002 to 2005 ("Impact Analysis for 2005 Energy Efficiency Standards") as well as from 2005 to 2008 ("Impact Analysis 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings"). ENVIRON used these CEC average savings percentages, which are: for electricity: 7.7 percent reduction in 2005 and 4.9 percent reduction in 2008; for gas: 3.2 percent reduction in 2005 and 9.4 percent reduction in 2008.3. Includes only Title 24-regulated building envelope uses of electricity (heating, cooling, ventilation, water heating) and gas (heating, water heating), as discussed in footnote (a) of Table 2.1-21.
4. Includes all other uses of electricity (cooking, refrigeration, exterior lighting, interior lighting, office equipment, miscellaneous, process, motors, air compressors) and gas (cooling, cooking, miscellaneous, process) not included in the Title 24-regulated building envelope, as discussed in footnote 3 above.
5. GHG EF are calculated by multiplying the corresponding usage rates or usages by the conversion factors listed in Table 2.1-23.
6. The usage rate with 15 percent improvement over Title 24 is calculated as the baseline Title 24 usage reduced by 15 percent plus the baseline non-Title 24 usage.
7. The total annual usage is calculated as the usage rate (with 15 percent improvement over Title 24) multiplied by the total area.

Source: Table 4-23 of Revised Climate Change Technical Report.

Accordingly, new non-residential space will not contribute to mobile GHG emissions. The emissions from heating and cooling the non-residential areas would, however, be considered to be new, as that would reflect growth in non-residential areas that goes along with growth in residential areas. Accordingly, GHG emissions from VMT serving non-residential areas will only be counted if the non-residential areas contribute to greater VMT as a result of its location. It should be noted that because the Project combines both residential and non-residential development, this issue does not directly affect the LCRSP's VMT calculations; all VMT from project residents is calculated, regardless of internal or external destinations or purpose of trip.

Assuming knowledge of the fuel consumption rate for each vehicle as well as the miles traveled per vehicle, the CCAR GRP recommends estimating GHG emissions from mobile sources at an individual vehicle level. Since these parameters are not known for a future development, the CCAR guidance is too specific to use as recommended.

For mobile sources, CH_4 and N_2O are explicitly calculated, multiplied by their respective GWP, and added to the CO_2 emissions, to result in total CO_2e emissions from mobile sources.

◊ **Estimating VMT from mobile sources.** Traditional traffic models focus upon designing roads and planning a development such that traffic delays will be avoided during peak-travel hours. Traditional traffic analyses also provide the total number of daily vehicles on a road which can then be used to calculate toxic or criteria emissions that may have localized health effects. Several steps must be taken to go from a traditional traffic model to a set of calculations that describe VMT made by project residents. In an effort to evaluate the assumptions described in this section, it is noted that the VMT and GHG emissions will change based on further reductions that are likely due to the potential benefits of the community's design to encourage mode shifts. In addition changes in estimated fleet distribution and emission factors will likely improve based on current and anticipated regulations.

The trip generation data was taken from the East Valley Transportation Model (EVTM) which was also used to generate the traffic analysis. The EVTM was run by SCAG based on inputs provided by the City's consulting traffic engineer (Crain and Associates).[113] Trip ends were adjusted based on the proportion of production ends only, based on the methodology of the federally issued Urban Transportation Planning Software (UTPS) package. For the purpose of this GHG emissions assessment, added daily trips, based on weekday estimates, as well as added VMT are shown in Table 2.1-25 on page 2-72 (Trip Generation Rates and Vehicle Miles based on Traffic Modeling).

Trips for each neighborhood are associated with an average trip length as provided by Crain and Associates (C&A). The total vehicle miles traveled (VMT) were calculated by multiplying the number of trips by the average trip length for each type of trip.

[113] Crain & Associates, Lytle Creek Development Mobile Emissions Analysis Input, September 15, 2009.

Table 2.1-25
Trip-Generation Rates and Vehicle Miles Based on Traffic Modeling

Zone	Neighborhood	Total Daily Trip Ends[2]	Percent Production Ends (%)	Production (Added Daily Trips)[3]	Average Trip Length (miles)	Added Daily Vehicle Miles of Travel (VMT)
80	I	7,533	68.1%	5,130	14.5	74,385
81	I	2,697	72.1%	1,945	14.4	28,008
82	II	24,225	54.6%	13,227	9.2	121,688
83	III	46,614	46.3%	21,582	9.3	200,713
84	IV	10,444	54.2%	5,661	13.0	73,593
Total				**47,545**		**498,387**

Notes:

EVTM = East Valley Transportation Model

VMT = Vehicle Miles Traveled

1. The data in this table was provided to ENVIRON by Crain and Associates in their memorandum dated September 15, 2009 re: Lytle Creek Development Mobile Emission Analysis Input. The analysis was conducted using the EVTM. The EVTM model accounts for "physical design" mitigation measures inherent in the project plan, such as high residential density and local serving retail.
2. Daily trip ends per weekday.
3. “Production” refers to the origin of the trip (rather than the destination).

Source: Crain and Associates, 2009, Lytle Creek Development Mobile Emission Analysis Input; Table 4-24 of Revised Climate Change Technical Report.

The value calculated here includes all VMT generated by future project residents commuting within the Project and all VMT generated by future project residents commuting to and from the Project. Each of the Project's residential dwelling unit is estimated to generate approximately 21,638 VMT per year. The total VMT for LCRSP residents is 181,911,255 as shown in Table 2.1-26 on page 2-74 (GHG Emissions from Vehicles for the Year 2030). This VMT was multiplied by the appropriate emission factors, as discussed below, to calculate the Project's estimated GHG emissions from mobile sources.

◊ **Estimating GHG emissions from mobile sources.** The CO_2 emissions from mobile sources were calculated with the trip rates, trip lengths, and emission factors for running and starting emissions from EMFAC2007 as follows:

CO_2 emissions = VMT x EFrunning
Where:
VMT = vehicle miles traveled
EFrunning = emission factor for running emissions

The CO_2 calculation involves the following assumptions: (1) internal trips were 30 miles per hour (mph)[114]; and (2) EMFAC emission factors from the year 2030 were used for EFrunning based on the County's fleet mix.

Startup emissions are CO_2 emitted from starting a vehicle. Startup emissions were calculated using the following assumptions: (1) the number of starts is equal to the number of trips made annually; (2) the breakdown in vehicles was EMFAC fleet mix for the County in 2030; and (3) the emission factor for startup was calculated based on a conservative assumption of long waits between starts. Fleet distribution types from EMFAC2007 were used for the year 2030.

Table 2.1-26 (GHG Emissions from Vehicles for the Year 2030) shows the CO_2 emissions from vehicles associated with project residents, as calculated according to the methodology described above. Because the EVTM modeled trip generation rates were based only on weekday conditions, CO_2 emissions totals were adjusted to also account for weekend conditions. To make such an adjustment, C&A utilized ITE trip generation rates to estimate weekday and weekend trip generation values for the Project, and compared the results. Though ITE rates are less specific to the Project than the EVTM model, the difference is very minor. Overall, the ITE projection for the weekend trip ends was within 5 percent of the weekday trip end generation value. Thus, to be conservative, weekend traffic was assumed to be 95 percent of the weekday capacity. Consequently, CO_2 emissions in Table 2.1-26 (GHG Emissions from Vehicles for the Year 2030) were multiplied by 98.6 percent to account for the difference between weekday and weekend conditions.

Nitrous oxide, CH_4, and HFCs[115] are also emitted from mobile sources. The USEPA recommends assuming that CH_4, N_2O, and HFCs account for 5 percent

[114] URBEMIS defaults to a vehicle speed of 30 mph for all trip types if no project specific data is entered.
[115] HFCs can be emitted from air conditioning systems.

Table 2.1-26
GHG Emissions From Vehicles For the Year 2030

Neighborhood	Annual Products (Added Annual Trips)[1]	Added Annual Vehicle Miles of Travel (VMT)[1]	Emission Factor Running (g/mile)[2]	Emission Factor Starts (g/start)[3]	Annual CO_2 Emissions Running (tonne)	Annual CO_2 Emissions Starts (tonne)	Total Annual CO_2 Emissions (tonne)	Total Annual Adjusted CO_2 Emissions (tonne)[4]	Total Annual CO_2e Emissions (tonne)[5]
I	1,872,450	27,150,525	367	104	9,960	194	10,155	10,010	10,536
I	709,925	10,222,920			3,750	74	3,824	3,769	3,968
II	4,827,855	44,416,120			16,294	501	16,796	16,556	17,427
III	7,877,430	73,260,245			26,876	818	27,694	27,298	28,735
IV	2,066,265	26,861,445			9,854	215	10,069	9,925	10,447
Total	**17,353,925**	**181,911,255**			**66,735**	**1,802**	**68,537**	**67,558**	**71,114**

Notes:

CH_4 = Methane
CO_2 = Carbon Dioxide
CO_2e = Carbon Dioxide Equivalent
g = gram
GHG = Greenhouse Gas
HFC = Hydro fluorocarbon
mph = miles per hour
N_2O = Nitrous oxide
USEPA = United States Environmental Protection Agency
VMT = Vehicle Miles Traveled

1. Daily trips and VMT were modeled for weekday activity, consequently these estimates assume 365 weekdays.
2. Emission factors for vehicles based on EMFAC files for 2030, based on LDA, LDT1, LDT2, and motorcycle for San Bernardino at 30 mph (URBEMIS default).
3. Starting emission factors are based on the weighted average distribution of time between trip starts based on URBEMIS defaults.
4. Weekend traffic is approximately 95 percent of weekday traffic. Overall CO_2 emissions are consequently 98.6 percent of those calculated based on weekday activity only (1.0*5/7 + 0.95*2/7).
5. $CO_2e=CO_2/0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs are 5 percent of emissions on a CO_2e basis.

Source: Table 4-25 of Revised Climate Change Technical Report.

of mobile source GHG emissions, taking into account their GWPs.[116] CO_2 emissions in Table 2.1-26 (GHG Emissions from Vehicles for the Year 2030) were, therefore, divided by 0.95 to account for non-CO_2 GHG emissions. Vehicles associated with the Project will emit approximately 71,114 tonnes CO_2e per year without taking into account future regulatory activity.

The USEPA recently granted a waiver for California for its GHG standards for motor vehicles. AB 1493 is expected to reduce running emissions for passenger cars and light trucks by 20 percent relative to the year 2009 by the year 2020.[117] Starting emissions will not be affected. Table 2.1-27 on page 2-76 (GHG Emissions from Vehicles for the Year 2030 with Pavley Standards) shows the CO_2 emissions from vehicles associated with future project residents as calculated incorporating the emissions reductions resulting from AB 1493. CO_2 emissions in Table 2.1-27 (GHG Emissions from Vehicles for the Year 2030 with Pavley Standards) were divided by 0.95 to account for non-CO_2 GHG emissions. Vehicles associated with the Project will emit approximately 57,265 tonnes CO_2e per year.

- **GHG emissions associated with municipal sources.** Based on the following assumptions, estimates for emissions stemming from municipal sources (e.g., drinking water and wastewater supply and treatment, public area lighting, and municipal vehicles) were factored into this analysis.

  - ◊ **Water and wastewater supply and treatment systems.** In general, the majority of municipal-sector GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. These are generally indirect emissions from the production of electricity to power these systems. Additional emissions from wastewater treatment include CH_4 and N_2O, which are emitted directly from the wastewater.

    The amount of electricity required to treat wastewater and supply water depends on the volume of the water involved. As shown in Table 4.10-7 (Estimated Water Demand for the Lytle Creek Ranch Specific Plan) of Section 4.10: Utilities and Service Systems of the DEIR, the total water demand projected for the Project is estimated to be 10,174 AF/Y. The entire amount is assumed to be potable water supplied by West Valley Water District.[118] Three processes are necessary to supply potable water to residential and commercial users: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and reused as reclaimed water.

[116] United States Environmental Protection Agency, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle, February 2005 (www.epa.gov/otaq/climate/420f05004.pdf).

[117] *Op. Cit.*, Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFÉ Standards and California Air Resources Board Greenhouse Gas Regulations, Table 11.

[118] As indicated in the West Valley Water District's (WVWD) "Urban Water Management Plan" (WVWD, January 2006), the WVWD expects that the water for the proposed project will be sourced from groundwater basins, surface water, and purchased water.

Table 2.1-27
GHG Emissions from Vehicles for the Year 2030 With Pavley Standards

Neighborhood	Annual Products (Added Annual Trips)[1]	Added Annual Vehicle Miles of Travel (VMT)[1]	Emission Factor Running (g/mile)[2]	Emission Factor Starts (g/start)[3]	Annual CO_2 Emissions Running (tonne)	Annual CO_2 Emissions Starts (tonne)	Total Annual CO_2 Emissions (tonne)	Total Annual Adjusted CO_2 Emissions (tonne)[4]	Total Annual CO_2e Emissions (tonne)[5]
I	1,872,450	27,150,525	**293**	**104**	**7,968**	194	8,163	8,046	8,470
I	709,925	10,222,920			3,000	74	3,074	3,030	3,190
II	4,827,855	44,416,120			13,035	501	13,537	13,343	14,046
III	7,877,430	73,260,245			21,501	818	22,319	22,000	23,158
IV	2,066,265	26,861,445			7,883	215	8,098	7,982	8,402
Total	**17,353,925**	**181,911,255**			**53,388**	**1,802**	**55,190**	**54,402**	**57,265**

Notes:

CH_4 = Methane
CO_2 = Carbon Dioxide
CO_2e = Carbon Dioxide Equivalent
g = gram
GHG = Greenhouse Gas
HFC = Hydro fluorocarbon
mph = miles per hour
N_2O = Nitrous oxide
USEPA = United States Environmental Protection Agency
VMT = Vehicle Miles Traveled

1. Daily trips and VMT were modeled for weekday activity, consequently these estimates assume 365 weekdays.
2. Emission factors for vehicles based on EMFAC files for 2030, based on LDA, LDT1, LDT2, and motorcycle for San Bernardino at 30 mph (URBEMIS default).
3. Starting emission factors are based on the weighted average distribution of time between trip starts based on URBEMIS defaults.
4. Weekend traffic is approximately 95 percent of weekday traffic. Overall CO_2 emissions are consequently 98.6 percent of those calculated based on weekday activity only (1.0*5/7 + 0.95*2/7).
5. $CO_2e=CO_2/0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs are 5 percent of emissions on a CO_2e basis.

Source: Table 4-26 of Revised Climate Change Technical Report.

Indirect emissions resulting from electricity use were determined by multiplying electricity use by the CO_2 emission factor provided by the local electricity supplier, Southern California Edison, (SCE). Energy use for different aspects of water treatment (e.g., source water pumping and conveyance, water treatment, distribution to users) was determined using the stated volumes of water and energy intensities values (i.e., energy use per unit volume of water) provided by reports from the California Energy Commission (CEC) and a report by Robert Wilkinson on energy use for California's water systems.[119]

The emission factors and GHG emissions for all these processes are shown in Table 2.1-28 on page 2-78 (GHG Emissions Factors for LCRSP Municipal Sources). The annual emissions from water treatment and distribution, wastewater treatment, and distribution of recycled water are approximately 10,221 tonnes CO_2e per year. Details on the emissions generated by specific aspects of water treatment and supply systems are provided in the following sections.

◊ **Potable water source supply and conveyance.** Water is typically supplied from several sources including the local underground aquifer, the State Water Supply (SWP), and recycled and reclaimed water.

Supplying and conveying water for the Project is estimated to account for 3,212 tonnes of CO_2e emissions per year. To supply the annual demand for 10,174 AF/Y of potable water, the Project will draw upon water from the SWP, groundwater, and surface water.[120]

The energy needed to supply and convey potable water will be used to pump this water from the sources and distribute it throughout the development. The CEC estimated that 950 kilowatt hours (kWh) would be required to extract 1 acre-foot of water from the Chino Basin groundwater, and 370 kWh would be required to extract 1 acre-foot of water from surface water. Robert Wilkinson estimated that 3,236 kWh would be required to extract 1 acre-foot of water from the SWP. As indicated in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources), using the above referenced energy intensity factors, the expected potable water demand, and the SCE carbon-intensity factor, GHG emissions from potable water supply and conveyance were calculated. Supplying and conveying water in LCRSP from the SWP, groundwater, and surface water is estimated to account for approximately 1,053 tonnes, 1,940 tonnes, and 219 tonnes of CO_2e emissions per year, respectively.

[119] California Energy Commission, California's Water-Energy Relationship, Final Staff Report, CEC-700-2005-011-SF 2005; California Energy Commission (Navigant Consulting, Inc.), Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, December 2006; Wilkinson, Robert, Methodology for Analysis of the Energy Intensity of California's Water Systems, and An Assessment of Multiple Potential Benefits through Integrated Water-Energy Efficiency Measures, 2000.

[120] The proposed project's water supplies are based on WVWD District expected sources for the area. It is estimated that 69 percent will come from groundwater, 11 percent will come from the State Water Project, and 20 percent will come from surface water.

Table 2.1-28
GHG Emissions Factors for LCRSP Municipal Sources

Source[1]	Energy Requirements	Emission Factor	Source Quantity	Total CO_2e Emissions (tonne CO_2e per year)
Lighting				
Public Lighting[2]	149 kW-hr/capita/yr	0.043 tonne CO_2e/capita/year	24,539 residents (capita)	1,061
Public Lighting Total				**1,061**
Municipal Vehicles				
Municipal Vehicles[3]	—	0.05 tonne CO_2e/capita/year	24,539 residents (capita)	1,227
Municipal Vehicles Total				**1,227**
Water and Wastewater[1,2]				
Groundwater Supply and Conveyance (Potable)[4,5]	950 kW-hr/acre-foot	0.28 tonne CO_2e/acre-foot	7,020 acre-feet/yr	1,940
State Water Project Supply and Conveyance (Potable)[4,6]	3,236 kW-hr/acre-foot	0.94 tonne CO_2e/acre-foot	1,119 acre-feet/yr	1,053
Surface Water[4,6]	370 kW-hr/acre-foot	0.11 tonne CO_2e/acre-foot	2,035 acre-feet/yr	219
Water Treatment (Potable)[7]	463 kW-hr/acre-foot	0.13 tonne CO_2e/acre-foot	10,174 acre-feet/yr	1,371
Water Distribution (Potable)[8]	391 kW-hr/acre-foot	0.11 tonne CO_2e/acre-foot	10,174 acre-feet/yr	1,157
Wastewater Treatment (Indirect Emissions)[9]	815 kW-hr/acre-foot	0.24 tonne CO_2e/acre-foot	10,174 acre-feet/yr	2,411
Wastewater Treatment Plant (Direct Emissions)[10]	—	0.084 tonne CO_2e/acre-foot	24,539 residents (capita)	2,070
Recycled Water Distribution (Non-Potable)[11]	400 kW-hr/acre-foot	0.12 tonne CO_2e/acre-foot	0 acre-feet/yr	0
Water and Wastewater Total				**10,221**
Municipal Sources Total				**12,509**

Notes:

CEC = California Energy Commission
CO_2e = carbon dioxide equivalent
EMWD = Eastern Municipal Water District
GHG = greenhouse gas
kW-hr = kilowatt hour
MW-hr = megawatt hour
NYSERDA = New York State Energy Research and Development Authority
USEPA = United States Environmental Protection Agency

1. Public Lighting includes streetlights, traffic signals, area lighting and lighting municipal buildings. Emissions from the Water and Wastewater category are primarily due to the energy required for supply, treatment and distribution. GHG emissions attributed to electricity use are calculated using the SCE carbon-intensity factor.
2. Emission factor for public lighting is based on a study of energy usage and GHG emissions from Duluth, MN (Skoog, 2001) and the electricity generation emission factor from Southern California Edison. Lytle Development Company plans to incorporate energy-saving light fixtures where feasible (Lytle Creek Ranch Specific Plan, 2008). Energy savings from this potential measure were not quantified for this analysis.
3. Emission factors for municipal vehicles are based on the most conservative number from studies of GHG emissions for four cities of different sizes: Medford, MA; Duluth,

Table 2.1-28 (Continued)
GHG Emissions Factors for LCRSP Municipal Sources

Source[1]	Energy Requirements	Emission Factor	Source Quantity	Total CO_2e Emissions (tonne CO_2e per year)

MN; Northampton, MA; and Santa Rosa, CA. Population data provided by the US Census (2000).

4. Water supply and conveyance is based on three different sources: groundwater, water purchased from the State Water Project, and surface water. According to the Urban Water Management Plan for West Valley Water District, 69 percent of the water supply is from groundwater pumping, 11 percent is from the State Water Project, and 20 percent is from surface water.
5. Emission factor for groundwater supply and conveyance is based on information provided in CEC 2005 for Chino Basin and the electricity generation emission factor from SCE. This factor is applied to potable water demand.
6. Emission factors for the State Water Project and surface water supply and conveyance are based on information provided by Wilkinson 2000 and CEC 2005. The electricity generation emission factor is based on information from Southern California Edison.
7. Emission factor for water treatment is based on information provided in CEC 2005 and the electricity generation emission factor from Southern California Edison. This factor is applied to potable water demand.
8. Emission factor for water distribution is based on a Navigant Consulting refinement of a CEC study on the energy necessary to distribute 1 million gallons of treated water and the Southern California-specific electricity generation emission factor from Southern California Edison. This factor is applied to potable water demand.
9. Emission factor for wastewater treatment is based information provided in CEC 2005 and the electricity generation emission factor from Southern California Edison.
10. Emission factor for the wastewater treatment plant accounts for direct methane and nitrous oxide emissions from wastewater. The value used here is based on the 2005 US inventory of GHG emissions for domestic wastewater treatment plants (USEPA) divided by the 2005 US population.(25 Tg CO_2e/year/296,410,404 people = 0.084 tonne CO_2e/capita/year)
11. Emission factor for recycled water distribution is based on information provided in CEC 2005 and the electricity generation emission factor from SCE. This factor is applied to non-potable water demand.

Source: CCAR Database, SCE PUP Report, 2006; CEC, 2005, *California's Water-Energy Relationship,* Final Staff Report, CEC-700-2005-011-SF; CEC, 2006, *Refining Estimates of Water-Related Energy Use in California,* PIER Final Project Report, Prepared by Navigant Consulting, Inc., CEC-500-2006-118, December; City of Medford, 2001, Climate Action Plan, October, www.massclimateaction.org/pdf/MedfordPlan2001.pdf; City of Northampton, 2006, Greenhouse Gas Emissions Inventory, Cities for Climate Protection Campaign, June, www.northamptonma.gov/uploads/listWidget/3208/NorthamptonInventoryClimateProtection.pdf; City of Santa Rosa, Cities for Climate Protection: Santa Rosa, http://ci.santa-rosa.ca.us/City_Hall/City_Manager/CCPFinalReport.pdf; West Valley Water District, 2006, Urban Water Management Plan, January, www.scag.ca.gov/rcp/pdf/uwmp/SanBernardino/WVWD-UWMP-2006-2.pdf; Skoog, C., 2001, Greenhouse Gas Inventory and Forecast Report, City of Duluth Facilities Management and The International Council for Local Environmental Initiatives, October, www.ci.duluth.mn.us/city/information/ccp/GHGE USEPA, 2007; Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2005, #430-R-07-002, April, http://epa.gov/climatechange/emissions/downloads06/07Waste.pdf; Wilkinson, Robert, 2000, Methodology for Analysis of the Energy Intensity of California's Water Systems, and An Assessment of Multiple Potential Benefits through Integrated Water-Energy Efficiency Measures; Table 4-28 of Revised Climate Change Technical Report.

◊ **Potable water treatment and distribution.** Treatment and distribution of potable water within the Project is estimated to account for approximately 1,371 tonnes[121] and 1,157 tonnes of CO_2e emissions per year, respectively. As shown in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources), based on the estimated potable water demand, these energy intensity factors and the SCE-carbon intensity factor, GHG emissions from potable water treatment and distribution were calculated.

◊ **Wastewater treatment.** Emissions associated with wastewater treatment include indirect emissions necessary to power the treatment process and direct emissions from degradation of organic material in the wastewater. Wastewater treatment's indirect emissions are estimated to account for 2,411 tonnes of CO_2e emissions per year. Wastewater treatment's direct emissions are estimated to account for 2,070 tonnes of CO_2e emissions per year.

Indirect GHG emissions from the electricity necessary to power the wastewater treatment process were calculated for the Project. The electricity required to operate a wastewater treatment plant is estimated to be 815 kWh per acre-foot.[122] As shown in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources), based on the expected amount of wastewater requiring treatment (10,174 AF/Y), this energy intensity factor and the SCE carbon-intensity factor, indirect emissions due to wastewater treatment were calculated.

Direct emissions from wastewater treatment include emissions of CH_4 and N_2O. A per capita emission factor for these GHG emissions was developed based on a national 2005 GHG inventory for domestic wastewater treatment (25 teragrams CO_2e/year or 25 million tonnes CO_2e/year)[123] and the 2005 United State's population (approximately 296,410,404 individuals). As shown in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources), direct emissions from wastewater treatment were calculated using the emission factor developed from this data (0.084 tonnes CO_2e per capita per year) and the projected population at LCRSP (24,539 residents[124], [125]). In total, all water and wastewater supply, treatment, and distribution for the Project is expected to produce approximately 10,221 tonnes of CO_2e annually.

◊ **Public lighting.** Lighting sources contribute to GHG emissions indirectly, via the production of the electricity that powers these lights. Lighting sources considered in this source category include streetlights, traffic signals, area lighting for parks and lots, and lighting in public buildings. The emission factor for public lighting is shown in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources).

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[121] Treatment is based on the average value presented by the CEC (Source: California Energy Commission, California's Water-Energy Relationship, Final Staff Report. CEC-700-2005-011-SF, 2005).

[122] *Op. Cit.*, California's Water-Energy Relationship, Final Staff Report. CEC-700-2005-011-SF, 2005.

[123] United States Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005, No.430-R-07-002, April 2007 (http://epa.gov/climatechange/emissions/downloads06/07Waste.pdf).

[124] Stoffel & Associates, Analysis of Retail Demand and Opportunities for the Lytle Creek Planned Community, Rialto, CA, October 2008 Update.

[125] A number of project-specific population estimates are presented in Section 4.2 (Population and Housing), ranging from 24,539 to 32,720 individuals. Within that range, the population estimate presented herein assuming a lower on-site population and, therefore, presents a worst-case assessment.

Data from a report by the City of Duluth shows that the amount of electricity demanded for all types of public lighting is 149 kWh per capita per year.[126,127] The Applicant plans to incorporate energy-saving light fixtures where feasible. Energy savings from this potential measure were not quantified for this analysis.

Using the City of Duluth's study, the SCE-specific carbon-intensity emission factor and the Project's estimated population (24,539 persons), emissions from public lighting were calculated. The project-specific emission factor for public lighting would be about 0.043 tonnes CO_2e per capita per year. Public lighting emissions attributable to the Project are estimated to account for approximately 1,061 tonnes CO_2 per year. This number is likely a conservative estimate since the Project is a master-planned community and may require fewer lights than the City of Duluth.

◊ **Municipal vehicles.** GHG emissions from municipal vehicles are due to direct emissions from the burning of fossil fuels. Municipal vehicles considered in this source category include vehicles such as police cars, fire trucks, and garbage trucks. The emission factor for municipal vehicles is shown in Table 2.1-28 (GHG Emissions Factors for LCRSP Municipal Sources). Data from reports by the Cities of Medford, Massachusetts, Duluth, Minnesota; Northampton, Massachusetts; and Santa Rosa, California[128] show that the CO_2 emissions from municipal vehicles would be approximately 0.05 tonnes per capita per year.[129] Using these studies and the expected LCRSP population of 24,539 individuals, emissions from municipal vehicles in the Project were calculated. Municipal vehicle emissions in the Project are estimated to account for approximately 1,227 tonnes CO_2e per year.

In total, all municipal sources including water, wastewater, public lighting and municipal vehicles for the Project are expected to produce approximately 12,509 tonnes of CO_2e annually.

- **Area sources.** Area sources emissions stem from hearths (including gas fireplaces, wood-burning fireplaces, and wood-burning stoves) and small mobile fuel combustion

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[126] City of Duluth Facilities Management and The International Council for Local Environmental Initiatives (Skoog, Carlin), Greenhouse Gas Inventory and Forecast Report with Recommendations for the Development of Duluth's Local Action Plan, October 2001, Appendix B (www.ci.duluth.mn.us/city/information/ccp/GHGEmissions.pdf).

[127] This factor was calculated by summing the total electricity needs for municipal uses (municipal buildings, parks, and lots with area lighting, street lighting, and traffic signals), totaling 12,933,962 kWh, and dividing by the City of Duluth's estimated population. The City of Duluth's estimated population (86,998 persons) was calculated by dividing the City of Diluth's reported GHG emissions (2,322,834 tonnes) by its reported per capita emissions (26.7 tonnes).

[128] City of Medford, Massachusetts Climate Action Plan, October 2001, www.massclimateaction.org/pdf/MedfordPlan2001.pdf; City of Northampton, Massachusetts, Greenhouse Gas Emissions Inventory, June 2006, www.northamptonma.gov/uploads/listWidget/3208/NorthamptonInventory ClimateProtection.pdf; City of Santa Rosa, California, Cities for Climate Protection: Santa Rosa, 2001, http://ci.santa-rosa.ca.us/City_Hall/City_Manager/CCPFinalReport.pdf; City of Duluth (Skoog, Carlin), Minnesota, Greenhouse Gas Inventory and Forecast Report with Recommendations for the Development of Duluth's Local Action Plan, October 2001, www.ci.duluth.mn.us/city/information/ccp/GHGEmissions.pdf.

[129] In an effort to be conservative, the largest per capita number from these four reports was used (Source: City of Duluth Facilities Management and The International Council for Local Environmental Initiatives (Skoog, Carlin), Greenhouse Gas Inventory and Forecast Report with Recommendations for the Development of Duluth's Local Action Plan, October 2001).

sources such as lawnmowers. Fuel combustion associated with these sources produce direct GHG emissions. Emissions from natural gas-fired stoves and natural gas heating are already included in the residential sources (see Table 2.1-14 [Energy Use per Residential Dwelling Unit: Appliances and Plug-Ins] through Table 2.1-17 [Estimated CO_2e Emissions per Dwelling Unit]).[130] Calculations based on the URBEMIS method were performed for the remaining types of area sources, natural gas fireplaces, and lawn maintenance. For the purpose of presenting a worst-case analysis, the Project will have 8,407 natural gas-burning fireplaces in its residential units. Wood-burning stoves or fireplaces are prohibited.[131] Direct GHG emissions from these sources were estimated by multiplying the energy use per year by the CO_2 emission factor for natural gas combustion. Annual energy use was determined by the number of fireplaces, the average energy use of each fireplace, and the URBEMIS default fireplace usage rate value of 200 hours/year.[132] In the absence of site-specific energy use values for fireplaces, the URBEMIS default values of 20,000 BTU/hour/fireplace for multi-family residences, and 30,000 BTU/hour/fireplace for single-family houses were used. Table 2.1-29 on page 2-83 (GHG Emissions from Area Sources—Hearth Fuel Consumption) and Table 2.1-30 on page 2-84 (GHG Emissions from Area Sources—Landscape Equipment Fuel Consumption) show an estimated 2,339 tonnes CO_2 will be generated annually by fuel combustion in natural gas-burning fireplaces.

Landscaping emissions originate from equipment such as lawn mowers, blowers, trimmers and chain saws.[133] For residential areas, landscape-based GHG emissions are directly related to the number of residential units, the annual equipment usage rate, and landscape equipment CO_2 emissions factors. URBEMIS default values were employed for the annual usage rate. Table 2.1-29 (GHG Emissions from Area Sources—Hearth Fuel Consumption) and Table 2.1-30 (GHG Emissions from Area Sources—Landscape Equipment Fuel Consumption) shows an estimated 31 tonnes CO_2 will be generated per year.

- **Emissions sources not quantified in inventory.** Several emissions sources were not quantified in this inventory, due to their estimated relatively small contribution to GHG

[130] The methods used to calculate natural gas use for heating, water heating, and cooking described in the residential emission calculations are conservative and may cause slight differences in the natural gas usage determined using URBEMIS as was used in the assessment of criteria pollutants herein. Both methods are, however, appropriate for the purpose of the individual sections. URBEMIS is designed for worst-day local emissions of criteria pollutants as opposed to total emissions of GHGs.

[131] Pursuant to SCAQMD Rule 445(d), adopted March 7, 2008: "(1) No person shall install a permanently installed wood burning device into any new development. (2) Notwithstanding the requirements of paragraph (d)(1), effective September 8, 2008, no person shall sell, offer for sale, supply, or install, a new or used permanently installed indoor or outdoor wood burning device or gaseous-fueled device unless it is one of the following: (A) A U.S. EPA Phase II-Certified wood burning heater; or (B) A pellet-fueled wood burning heater; or (C) A masonry heater; (D) A wood burning device or fireplace determined to meet the U.S. EPA particulate matter emission standard established by Title 40 Code of Federal Regulations, Part 60, Subpart AAA, February 28, 1988 or subsequent revisions; of (E) A dedicated gaseous-fueled fireplace."

[132] URBEMIS default value.

[133] According to Appendix B of the URBEMIS User's Guide, landscaping emissions from non-residential land uses also includes contributions from air compressors, generators and pumps, which are affiliated with commercial applications.

Table 2.1-29
GHG Emissions From Area Sources—Hearth Fuel Consumption

Wood-Burning Source	Quantity[1]	Amount of Wood per Fireplace[1] (lbs/year/unit)	Total Wood Burned Annually (tonne/year)	CO_2 Emission Rate (lbs CO^2/ tonne wood)	Annual CO_2 Emission (tonne/year)
Wood Stoves	0	—	—	—	0
Wood Fireplaces	0	—	—	—	0
Wood Stoves and Fireplaces Total					**0**

Natural Gas Fireplace Dwelling Unit Type	Quantity[2]	Average Energy Use[3] (btu/hour/unit)	Usage Rate[4] (hours/year)	Energy Use per Year (MMBTU/year)	CO_2 Emission[5] (lb CO_2/MMBTU)	Annual CO_2 Emission (tonne/year)
Single-Family	5,254	30,000	200	31,524	117	1,671
Multi-Family	3,153	20,000	200	12,612	117	668
Natural Gas Fireplaces Total						**2,339**
Hearth Fuel Combustion Total						**2,339**

Notes:

SFR = Single-Family Residential

1. There will be no wood-burning stoves or fireplaces at Lytle Creek Ranch.
2. For a conservative estimate, all single-family and multi-family residences were assumed to each have a natural gas fireplace. In addition, all DUs in the SFR-1, SFR-2, and SFR-3 land use categories were conservatively treated as single-family dwellings, regardless of the number of units per building.
3. Average energy use values are URBEMIS default values.
4. Usage rate of 200 hours/year is the URBEMIS default value.
5. Emission factor based on AP-42 value for natural gas combustion.

Source: USEPA, 1995, AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, January, www.epa.gov/ttn/chief/ap42/; SCAQMD, Software User's Guide: URBEMIS2007 for Windows, Prepared by Jones & Stokes Associates, November, Table 4-27 of Revised Climate Change Technical Report.

Table 2.1-30
GHG Emissions from Area Sources—Landscape Equipment Fuel Consumption

Land Use Type	Quantity[1] (units)	CO_2 Emission Factor[2] (lbs/unit/day)	Equipment Use Period[3] (days/year)	Annual CO_2 Emission (tonne/year)
Single-family residential (DU)[4]	5,254	0.07	180	31
Landscape Equipment Fuel Combustion Total				**31**

Notes:

BU = business unit

DU = dwelling unit

SFR = Single-Family Residential

1. Land use information provided by Lytle Creek Ranch Specific Plan. All DUs in the SFR-1, SFR-2, and SFR-3 land use categories were conservatively treated as single-family dwellings, regardless of the number of units per building.
2. Emission factors provided by URBEMIS, based on estimates using ARB's OFFROAD2007 model.
3. Use period is assumed to be equal to the summer period of 180 days.
4. Based on estimates using the URBEMIS model, emissions from landscaping are mainly attributed to single-family residential land uses; the total acreage of non- residential land uses did not significantly impact the total landscaping CO_2 emissions. Thus, only landscaping emissions associated with single-family residences are calculated here.

Source: SCAQMD, Software User's Guide: URBEMIS 2007 9.2.4 for Windows, prepared by Jones & Stokes Associates, November, www.aqmd.gov/CEQA/urbemis.html; Table 4-29 of Revised Climate Change Technical Report.

emissions.[134] These sources include emissions from recreational sources and refrigeration leaks, as described in more detail below.[135]

◊ **Pools and recreation centers.** The Project includes neighborhood community areas and parks which may also include pools and recreation centers. At the entitlement stage of development, the degree of uncertainty in the potential end-uses of these recreational areas makes a meaningful quantification of GHG emissions difficult. As a result of this uncertainty, these emissions were not quantified.

◊ **Refrigeration leaks.** Emissions associated with leaks of high GWP gases (such as from refrigeration leaks) were not quantified. At the entitlement stage, the degree of uncertainty in the potential facilities with sources that may have refrigeration leaks make a meaningful quantification of GHG emissions difficult. In addition, since refrigeration systems will be new, they are likely efficient and should be designed to reduce the amount of leaks of high global warming potential gases. As a result of this uncertainty, these emissions were not quantified.

- **Project design features that reduce GHG emissions.** The Project incorporates many design features to reduce GHG emissions. The following section describes those design features that were incorporated into this analysis, either directly or indirectly. This section also lists those features that were not quantified but would likely yield further GHG emissions reductions.

  ◊ Project design features incorporated into this analysis.

    ♦ **Reductions in emissions from mobile sources.** (1) Project design will provide physical linkages between land uses that promote walking and bicycling and provide alternatives to automobile use; (2) Project design will link together parks and other activity nodes on the site via a 23.5-acre "Grand Paseo," (3) The compact building design approach will reduce its footprint and allow for transportation and open space corridors; (4) The commercial areas will be centrally located and walkable; and (5) The circulation system has been designed to encourage residents to make multiple stops per trip.

    ♦ **Vegetation preservation.** (1) A minimum of 829.2 acres will be preserved as natural (undisturbed) open space; and (2) Up to 30,000 trees will be planted on the Project site.

    ♦ **Energy savings.** (1) Homes and businesses will exceed 2008 Energy-Efficiency Standards by at least 15 percent; and (2) Where appliances are offered by the builder/developer, Energy Star appliances will be installed. The following project design features, while not individually quantified, may be incorporated to meet the 15 percent reduction over 2008 Energy-Efficiency Standards to which the Applicant has committed: Installation

[134] Typically less than 1 percent of the overall inventory.
[135] Black carbon was also not considered. Major sources of black carbon emissions are not proposed.

of: (a) energy-efficient heating and cooling systems, equipment, and control systems; (b) GE Energy Monitoring Dashboards to provide real-time and historic feedback to residents on their home's energy consumption; (3) lighting control systems; and (d) light-colored "cool" roofs.[136]

- **Area sources.** Wood-burning fireplaces are prohibited.

◊ **Features not incorporated into this analysis.** There are number of Applicant-proposed design features that will result in the reduction of GHG emissions from the Project. These cannot be quantified but they are listed below.

- **Energy use in the built environment.** (1) Purchase of green power beyond the requirements of the RPS; (2) Installation of (a) additional energy-efficient appliances, such as clothes dryers, ventilation fans, and ceiling fans (e.g., Energy Star or equivalent); (b) efficient pumps and motors for pools and spas; and (c) LEDs for traffic and street; (3) Providing education on energy efficiency, water conservation, and waste recycling services; (4) For mechanically or naturally ventilated spaces in the building, meet minimum requirements of Section 121 of the California Energy Code or the applicable local code, whichever is more stringent; (5) Adhesives, paints, stains, coatings, and carpet shall be of low VOC; and (6) MERV 6 or higher filters are installed on central air and heating systems.

- **Reductions in emissions from mobile sources.** Connections to mass transit to facilitate and promote alternative transportation;

- **Water conservation.** Turf will not occupy more than 60 percent of the landscaped area in the home lots.

- **Solid waste.** Recycling centers will be provided in readily accessible areas within buildings for depositing, storage, and collection of non-hazardous materials for recycling.

Summary of Emissions from the Proposed Project

The emissions and relative magnitude of emissions from the various aspects of the Project, when AB 1493 is taken into account, are presented in Table 2.1-31 on page 2-87 (Summary of GHG Emissions for LCRSP Including Pavley Standards). One-time vegetation emissions are estimated to be approximately negative 1,120 tonnes CO_2 (net decrease in the amount of CO_2 released), the negative value indicates a one-time net decrease in emissions. One-time construction emissions are estimated to be approximately 257,552 tonnes CO_2e. The

[136] Cool-roof technology can reduce urban heat-island impacts. Specific features may include high solar reflectance index (SRI) roof materials (roofs sloped at 2:12 will have an SRI of at least 78 and roofs sloped greater than 2:12 will have an SRI of at least 29) and cool-roof coverings and coatings. Although these features are recognized by the Climate Action Team, they are difficult to quantify at the level of specification available for the proposed project. Consequently, this analysis does not take credit for these project design features when calculating the project's break from BAU. This may contribute to an underestimation of the net reduction from BAU.

Table 2.1-31
Summary of GHG Emissions for LCRSP Including Pavley Standards

Source	GHG Emissions (tonnes CO_2e total)	Percentage of Annual CO_2e Emissions[8] (%)
One Time Emissions		
Vegetation[1]	-1,120	N/A
Construction (Non-Building)[2]	118,160	N/A
Construction (Buildings)[2]	139,392	N/A
Total (one time emissions)	256,432	N/A
Annualized[3]	**6,411**	**N/A**
Buildout Emissions (Annual)		
Residential[4]	21,530	22%
Non-Residential[5]	4,386	4%
Mobile[6]	57,265	58%
Municipal[7]	12,509	13%
Area	2,370	2%
Total (annual emissions)	**98,059**	**N/A**
Combined One Time Annualized Emissions and Buildout Annual Emissions	104,470	N/A

Notes:

CH_4 = methane
EIA = Energy Information Administration
GHG = Greenhouse Gas
VMT = Vehicle Miles Traveled
CO_2 = carbon dioxide
EIR = Environmental Impact Report
N_2O = nitrous oxide
CO_2e = carbon dioxide equivalent
EMFAC = Emission Factors Database
TBD = to be determined

1. Vegetation emissions are one-time emissions resulting from the removal of existing vegetation and planting of new vegetation in Lytle Creek Ranch. The emissions are estimated assuming that all carbon currently sequestered in the biomass of the vegetation is released to the atmosphere upon removal of the vegetation. A total of 1356.3 acres of existing vegetation is considered to be removed for development purposes. Data for emissions calculations are primarily from the IPCC Guidelines for National Greenhouse Gas Inventories.
2. Construction emissions are one-time emissions reported in total metric tonnes during the construction period 2009-2011. Emissions are calculated using URBEMIS default values, EMFAC2007 and model inputs prepared by PCR Services. Sources of emissions include construction equipment (building-related emissions) and vehicles associated with worker commuting and vendor trips (non- building emissions).
3. One-time emissions (vegetation and construction) are "annualized" in this Total row. This is done by dividing by an annualization factor, 40 years, effectively converting the one-time emission into an annual emission rate. One-time emissions are not annualized in their respective rows above.
4. Residential emissions for single family and apartment DUs include emissions associated with electricity and natural gas use. Emissions estimates were developed from RECS database and the BARBD. As specified in the report "Lytle Creek Ranch DEIR No. 471", a total of 8407 DUs are considered.
5. Non-Residential emissions for grocery, misc. retail/commercial/office, hotel, public safety, and institutional buildings account for electricity and natural gas use. Emissions estimates for non- residential buildings were developed from the 2003 Commercial Buildings Energy Consumption Survey (CBECS), published by the US EIA.
6. Mobile source emissions were calculated using EMFAC emission factors with trip rates and VMT prepared by Crain and Associates. Mobile source emissions account for residential trips. CO2 emissions were scaled to reflect CO2e emissions based on data from the USEPA.
7. Municipal emissions account for emissions due to energy production associated with water supply, public/street lighting, and municipal vehicles. Energy use estimates for water supply are based primarily on CEC's 2005 "California's Water-Energy Relationship" report Emissions from street lighting and municipal vehicles were based upon studies of other cities.
8. Percentages only apply to annual CO_2e emissions; annual and one-time CO_2e emissions cannot be directly compared.

Source: Table 4-30 of Revised Climate Change Technical Report.

annualized emissions from these one-time emission sources over a 40-year development life is 6,411 tonnes CO_2e per year. Annual emissions at buildout equal 98,059 tonnes CO_2e per year

of which mobile sources are estimated to be approximately 57,265 tonnes CO_2e per year or 58 percent of the annual project emissions. Estimated emissions from residential buildings of 21,530 tonnes CO_2e per year comprise 22 percent of the annual project emissions. Estimated emissions from non-residential buildings of 4,386 tonnes CO_2e per year comprise 4 percent of the annual project emissions. Emissions from municipal sources (e.g., water distribution, public lighting, and municipal vehicles) are estimated to be approximately 13 percent of the annual project emissions. Emissions from area sources (e.g., fireplaces and lawn maintenance) are estimated to be 2,370 tonnes or approximately 2 percent of annual project emissions. The combined one-time annualized emissions and buildout annual emissions equal 104,470 tonnes CO_2e per year.

The Global Warming Solutions Act of 2006 (AB 32) requires that GHG emissions from California be reduced to 1990 levels by 2020. This represents a reduction of approximately 28.5 percent from projected 2020 growth. In addition to reducing overall energy consumption, the goals of AB 32 are likely to be reached by increasing renewable or non-carbon producing electricity production and changing the transportation system to rely on a set of low-carbon fuels. Although some measures that are being implemented as a part of AB 32 are incorporated into this analysis (such as the new fuel efficiency standards and the 33 percent renewable power standard), other measures that have yet to be implemented are not included. Accordingly, actual emissions are likely to be lower as more measures to implement AB 32 are enacted.

BAU GHG Emissions Inventory and Comparison to Proposed Project

To determine the Project's GHG emissions impacts under CEQA, the GHG inventory was evaluated against a threshold of significance defined as consistency with AB 32 goals, as demonstrated by achieving at least a 28.5 percent reduction in GHG emissions over the BAU scenario. The BAU scenario consists of projected emissions for LCRSP that would occur from the Project if it were to be built without the project design features and energy reduction commitments made by Lytle Development Company, and without the regulations that have been promulgated to comply with AB 32.

The major categories of the GHG emission inventory are considered separately below. These include residential and non-residential buildings, mobile sources, municipal lighting, and water sources. For each source category, the BAU scenario assumptions and the estimated emissions associated with these assumptions are presented; project scenario assumptions and emissions have already been summarized above. The remaining source categories (municipal vehicles and area sources) represent a small fraction of the total inventory and do not have

appropriate emission factors to quantify the reductions that are likely to occur at the Project compared to BAU.

- **Vegetation.** The Applicant will preserve a minimum of 829.2 acres, and up to a total amount of 908.0 acres, of land as natural (undisturbed) open space instead of building out in this area. In addition, the Applicant has committed to planting 30,000 new trees. The BAU analysis for vegetation assumes that neither of these commitments is taken and the land is fully developed without replanting. Table 2.1-32 on page 2-89 (BAU CO_2 Sequestration due to Land-Use Change), Table 2.1-33 on page 2-90 (BAU Carbon per Acre for IPCC Land Types), Table 2.1-34 on page 2-91 (BAU CO_2 Sequestration Capacity of New Vegetation Plantings), and Table 2.1-35 on page 2-91 (BAU in CO_2

Table 2.1-32
BAU CO_2 Sequestration Due to Land-Use Change

Vegetation Type[1]	IPCC Designation[2]	IPCC Sub Qualification	Tons Dry Matter Carbon/Acre[3] (tonne/acre)	Sequestered CO_2/Acre[4] (tonne/acre)	Total Impacted Area[5] (acre)	CO_2 Sequestration Capacity of Removed Vegetation (tonne)
Scrubland	Forest Land	Scrub	3.9	14.3	2,264.3	32,388
Grand Total			**3.9**	**14.3**	**2,264.3**	**32,388**

Notes:

BAU = business as usual

1. Land types shown here represent vegetation that will be potentially removed upon development.
2. Land types are mapped to generalized IPCC Land Designations (IPCC 2006).
3. Dry matter carbon per acre was determined from information contained in Table 5-3 of the Revised Climate Change Technical Report.
4. It is conservatively assumed that all carbon is eventually converted into CO_2. Multiply the mass of carbon by 3.67 to calculate the final mass of CO_2 (the molecular mass of CO_2/the molecular mass of carbon = 44/12 or 3.67).
5. Data provided by Lytle Development Company. A positive number indicates land is removed. For the BAU scenario, approximately 908 additional acres of shrublands are converted to settlements, relative to the Project scenario (which includes 1,356.3 converted acres).

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm, Table 5-2 of Revised Climate Change Technical Report.

Table 2.1-33
BAU Carbon per Acre for IPCC Land Types

IPCC Designation	Sub Qualification	Above Ground Biomass[1] (tonne d.m./acre)	Ratio of Above Ground/ Below Ground Biomass[2]	Total Biomass (tonne d.m./ Hectare)	Total Biomass[3] (tonne d.m./acre)	Tonnes Dry Matter Carbon/Acre[4] (tonne/acre)
Forest Land	Scrub	5.7	2.17	20.5	8.3	3.9
Forest Land	Trees	52.6	4.35	159.9	64.7	30.4

Notes:

BAU = business as usual

d.m. = dry mass

1. Numbers listed are used in conjunction with above ground/below ground ratios to calculate total biomass per acre. Values from source converted to tonne/acre.
2. This value is used to calculate total biomass when data for the total biomass is not available for a particular land type.
3. Total biomass is either 1.) Listed directly in the IPCC protocol, or 2.) Calculated from above ground biomass and the Above Ground / Below Ground biomass ratios as follows: Total = Above + (Above / [Above:Below Ratio]). Values from source converted to tonne/acre as necessary.
4. Total biomass multiplied by carbon fraction in plant material (0.47) to calculate carbon content. From IPCC (2006), default value for Forest Land (Table 4.3 of IPCC). Here, it is assumed that agricultural vegetation has the same carbon fraction as other vegetation types.

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm; Table 5-3 of Revised Climate Change Technical Report.

Table 2.1-34
BAU CO_2 Sequestration Capacity of New Vegetation Plantings

Vegetation Species[1]	IPCC Species Class Designation	Sequestered CO_2/Unit[2] (tonne/unit/year)	Total Quantity of New Vegetation[1]	CO_2 Sequestration Capacity of New Vegetation[3] (tonne)
Pine	Pine	0.032 tree	0 tree	0
Miscellaneous	Miscellaneous Trees	0.035 tree	0 tree	0
Total			**0 tree**	**0**

Notes:
BAU = business as usual
1. Site-specific planting data provided by Lytle Development Company.
2. Species class-specific sequestration values are provided in Table 8.2 of "2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume
3. An active growing period of 20 years was assumed for the new trees planted.
4. For species that do not appear in Table 8.2, the species was classified as "miscellaneous" and the average value of all listed data was used.

Source: Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm; Table 5-4 of Revised Climate Change Technical Report.

Table 2.1-35
BAU in CO_2 Sequestration Due to Land-Use Changes and New Vegetation Plantings

CO_2 Sequestration Capacity of Vegetation (tonne)	CO_2 Sequestration Capacity of New Vegetation (tonne)	Net Change in CO_2 Sequestration Capacity[1] (tonne)
-32,388	0	-32,388

Notes:
BAU = business as usual
1. A positive value represents an increase in sequestration capacity and thus a net reduction in CO_2.

Source: Table 5-5 of Revised Climate Change Technical Report.

Sequestration due to Land-Use Changes and New Vegetation Plantings) follow the same methodology presented in discussion regarding vegetation change, above. The BAU vegetation results in a one-time release of approximately 32,388 tonnes CO_2e, which contrasts with the net increase of 1,120 tonnes of CO_2e in sequestration capacity for the Project.

The built environment. The energy use and GHG emissions from the modeled homes for the Project were compared to the energy use and GHG emissions from a minimally 2005 Title 24 compliant building of the same size, based on 2005 Title 24 requirements. It was also assumed that the comparison homes had standard appliances instead of Energy Star appliances and all new homes would not be 15 percent more energy efficient than 2008 Energy-Efficiency Standards requirements. Finally, it was assumed that the fraction of renewable energy supplied to the Project would remain at present levels. The same distribution of home sizes and climate zone location is used for the BAU analysis. As illustrated in Table 2.1-18 on page 2-60 (CO_2e Emissions from Electricity and Natural Gas Usage in Residential Dwelling Units), the Project with

implementation of 2008 Title 24 requirements and project features (i.e., new homes would be 15 percent more energy efficient than 2008 Title 24 requirements) would reduce BAU emissions from 27,975 tonnes CO_2e per year to 21,530 tonnes CO_2e per year. Thus, the Project is 23 percent better than the BAU home for emissions from energy use covered by the 2005 Title 24 minimum requirements. As shown in Table 2.1-19, this reduction would further increase to 29 percent when considering the 2020 RPS.

A similar comparison for non-residential buildings compares the Project's non-residential buildings energy use and GHG emissions from a minimally 2005 Title 24 compliant building. The same mix of non-residential building types and square footage is assumed. For energy use subject to Title 24, the Project's non-residential buildings will be 15 percent better than 2008 Title 24 requirements. Unlike residential homes, the developer/ builder has little control over the appliances and plug-in energy use that will occur in the buildings. It was assumed that the fraction of renewable energy supplied to the Project would remain at present levels.

As illustrated in Table 2.1-22 on page 2-68 (Energy Usage and Resulting GHG Emissions for Non-Residential Building Types), the Project with implementation of 2008 Title 24 requirements and project features (i.e., new structures would be 15 percent more energy efficient than 2008 Title 24 requirements) would reduce BAU emissions from 4,937 tonnes CO_2e per year to 4,386 tonnes CO_2e per year. Thus, the Project is 11 percent better than the BAU non-residential for emissions from energy use covered by the 2005 Title 24 minimum requirements. As shown in Table 2.1-23, this reduction would further increase to 22 percent when considering the 2020 RPS.

There are some uncertainties and limitations regarding non-residential building BAU comparison. A baseline energy use value for non-residential buildings was used based upon survey data of current building stock. Although the correct comparison for BAU is with the Title 24 standards that were in effect in 2008 (i.e., 2005 Energy- Efficiency Standards) as assumed in the "Climate Change Scoping Plan," a direct comparison with those standards is not available. Current building stock is likely less efficient than the requirements for new buildings under Title 24, however, this was assumed to be the baseline values in this analysis since a better comparison of a standard Title 24–compliant building was not available.[137] Additionally, a generic mix of non-residential building uses was assumed in determining percentage reduction from electricity and natural gas. To the extent that the Project's mix changes, the calculated savings may differ.

- **Transportation.** The BAU scenario differs from the Project scenario in two main ways: trip rates and emission factors. With respect to emission factors, transportation emissions presented here are based upon EMFAC2007 values for the year 2030, which are based upon past vehicle emission trends and do not incorporate future regulatory actions.

[137] In a comparative analysis it is important to consider the percent difference between the proposed scenario and the BAU scenario. The proposed scenario is based on energy consumption data for current building stock (rather than new buildings compliant with current building energy standards). Since the BAU scenario is based on the same core data set, the calculated percent difference is due only to the differences between the two scenarios.

The trip rates for a BAU scenario were estimated assuming no "project design features," such as local serving retail and pedestrian friendliness, and it was assumed that the same 8,407 dwelling units would be developed at a lower density, comparable to that of the nearby areas of the City of Rialto. It was further assumed that the 8,407 dwelling units would be built with a mix of single-family and multi-family residences proportional to that in the City of Rialto. The density for single-family homes in the BAU case was based on the minimum lot size in the City of Rialto. The density for multi-family homes in the City of Rialto was based on URBEMIS defaults.[138,139]

URBEMIS methodology was used to estimate the impact on trip generation of both the increased density of the Project relative to the low-density unmitigated scenario and the mitigation factors. The input parameters for URBEMIS that were used to model the mitigated scenario for transportation GHGs are shown in Table 2.1-36 on page 2-94 (URBEMIS Operational Mitigation Component Inputs for Mitigated Scenario). Two scenarios were modeled in URBEMIS, one using the Project's housing mix and density as well as the identified mitigation factors (mitigated scenario) and one using the housing mix and density based on the City of Rialto, and not including mitigation factors (low-density unmitigated scenario). The URBEMIS methodology for adjusting ITE trip generation rates results in an increase in the trip rates associated with these 8,407 dwelling units in the low-density unmitigated scenario due to the decreased density of the dwelling units and removal of other project design features. Table 2.1-37 on page 2-95 (Trip Generation Rates based on URBEMIS) shows the residential land-use inputs and the trip rates and daily trips for the two scenarios, based on the URBEMIS output.

The first step in estimating trip rates made by the residents under the low-density unmitigated scenario was to quantify the impact of the density of the Project and the mitigation factors included in the Project relative to the BAU scenario. This was done using URBEMIS. Both scenarios were modeled using the same methodology, described in more detail below.

As discussed above, the trips generated by the residents of the Project represent growth; however, new non-residential areas do not necessarily represent growth since people would already be taking these trips. The new non-residential areas will only serve to displace the location of trips; therefore only those trips generated from the residential land uses will be accounted for in order to determine the GHG emissions from the mitigated scenario and the low-density unmitigated scenario.

URBEMIS uses the trip generation rates based on ITE trip generation rates for each land-use type. ITE trip generation rates vary over a range depending on several factors. For housing types, a key feature that changes trip rate is housing density. It has been determined that housing density scales with trip rates according to the following equation[140]:

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[138] The ratio of single-family to multi-family houses in the BAU case was based on 2005–2007 census data for the City. One-unit attached, one-unit detached, and 2-unit buildings were considered to be single family. All others, excluding mobile homes, were assumed to be multi-family. The definitions for these housing product types, based on URBEMIS modeling, differs from the definition of those unit types as presented in the LCRSP.

[139] The default for low-rise apartments (≤3 levels) and condominiums/townhouses (≤2 levels) was used.

[140] South Coast Air Quality Management District (Jones & Stokes Associates), Software User's Guide, URBEMIS2007 for Windows, Appendix D, November 2007, p. D-15.

Table 2.1-36
URBEMIS Operational Mitigation Component Inputs for Mitigated Scenario

Category	URBEMIS Operational Mitigation Parameter	Value
Residential and Nonresidential Mix of Uses	Number of Housing Units within 0.5-mile radius[1]	11,723
	Study Area Employment	3,596
Local Serving Retail	Presence of Local Serving Retail	Present
Transit Enhancing Infrastructure[2]	Number of Daily Weekday Buses	34
	Number of Daily Rail or Rapid Transit Buses	19
	Number of Dedicated Daily Shuttles	0
Bicycle and Pedestrian[3]	Number Intersections per Square Mile	0
	Percent of Streets with Sidewalks on One Side	100%
	Percent of Streets with Sidewalks on Both Sides	70%
	Percent of Arterials/Collectors with Bike Lanes	100%

Notes:
1. Number of Housing Units within a 1/2 mile radius and Study Area Employment were provided by PCR Services. URBEMIS files provided on June 5, 2009.
2. Number of daily buses, rail, and rapid transit buses were provided by Lytle Development Company.
3. Bike and pedestrian physical design features were provided by Lytle Development Company.

Source: Software User's Guide: URBEMIS2007 for Windows, November 2007, Appendix D, URBEMIS2007 Mobile Source Mitigation Component; Table 5-6 of Revised Climate Change Technical Report.

Trip reduction = The percent reduction from average ITE trip generation rate.

DU/ac = The number of dwelling units per acre for a specific land use type.

There is a sizable reduction in trips as compared to the average ITE trip generation rate for the housing density planned for the Project (mitigated scenario). URBEMIS has adopted the methodology of accounting for other project design features as reductions in the number of trips taken for a specific land use. For the proposed LCRSP, this includes a trip reduction for integrating both residential and non-residential development, incorporating local serving retail, mass transit, and a pedestrian factor and a bicycle friendliness factor.[141] These, along with housing density, modify the trip rate for the housing land-use categories.

It is likely that a portion of the Project's residents would take public transportation when travelling out of the Project. The proposed LCRSP includes specific enhancements to the public transportation in the region, including new bus stops and benches and coordination with Omnitrans. Trip reductions due to bus and Metrolink rail travel were taken into account in the URBEMIS model, as were reductions due to pedestrian and bicycle-friendly design. URBEMIS uses a transit service index which incorporates frequency of service but weights rail more heavily than bus transit. Trip reductions due to mode shifts incorporate the transit service index and a pedestrian/bicycle score.[142]

[141] All of these trip-rate reductions follow the methods described in URBEMIS user's guide, Appendix D.
[142] *Op. Cit*., Software User's Guide, URBEMIS2007 for Windows, p. 38.

Table 2.1-37
Trip-Generation Rates Based on URBEMIS

Residential Housing Type	Number of Units[1]	URBEMIS Trip Rate[4] (trips per day per unit)	URBEMIS Based Unadjusted Daily Production Trips[2]
Mitigated Scenario[2]			
Single-Family House	3,409	6.86	23,401
Condo/Townhouse General	4,998	5.31	26,562
Total Trips			**49,964**
Unmitigated Low-Density Scenario[3]			
Single-Family House	6,759	8.73	59,006
Condo/Townhouse General	1,648	6.90	11,371
Total Trips			**70,377**
Ratio of Low-Density Unmitigated Scenario Trips to Mitigated Scenario Trips			**141%**

Notes:

1. Number of units and housing type for each phase for the mitigated scenario are based on the Lytle Creek Ranch Specific Plan. Numbers of units and housing types for the low-density scenario are based on the City of Rialto. Proportions are derived from the 2005-2007 American Community Survey Housing Units data.
2. The mitigated scenario takes into account housing density, mixed of uses, local serving retail, mass transit, and pedestrian and bicycle friendliness.
3. The unmitigated low-density scenario takes into account the average density of the nearby section of the City of Rialto and does not account for any mitigation measures.
4. Based on numbers from URBEMIS file output. Unadjusted Daily Trips = No. Units x Trip Rate

Source: United States Census Bureau. Selected Housing Characteristics: 2005–2007, American Community Survey, http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=16000US0660466&-qr_name=ACS_2007_3YR_G00_DP3YR4&-ds_name=ACS_2007_3YR_G00_&-_lang=en&-_sse=on; Table 5-7 of Revised Climate Change Technical Report.

The value calculated herein includes all VMT generated by the Project's residents commuting within the Project area and all VMT generated by the Project's residents commuting to and from the Project site. According to the methodology above, 49,946 added trips per day are associated with the mitigated scenario,[143,144] as shown in Table 2.1-37 (Trip Generation Rates based on URBEMIS). The low-density unmitigated scenario generates an added 70,377 added trips per day or 141 percent of the trips associated with the mitigated scenario.

This ratio of trips generated for the low-density unmitigated scenario relative to the mitigated scenario was used to scale the VMT estimated using the EVTM model, resulting in an estimate of the VMT associated with the BAU scenario. This approach

[143] The 49,946 added weekday trips were predicted using the URBEMIS model. This URBMIS-based value was used in this analysis only to establish the percent trip reduction relative to the low-density unmitigated scenario also modeled in URBEMIS. The EVTM model estimate of 47,545 added daily trips provided by C&A was used to calculate project emissions. Note that the difference between the two methodologies is less than 5 percent.

[144] The analysis relies on the traffic numbers reported by C&A. To estimate the reductions due to the traffic mitigation measures, the trip generation in URBEMIS with and without the mitigation measures was calculated. The resulting percent reduction was used to scale the numbers provided by C&A to estimate the mitigated VMT consistent with the C&A analysis.

assumes that trip distances are the same in the two scenarios. This methodology results in an estimate of 66,970 added trips per day and 702,010 added vehicle miles traveled per day associated with the low-density unmitigated scenario, as shown in Table 2.1-38 on page 2-97 (BAU Generation Rates and Vehicle Miles Based on Scaled Traffic Model).

These modified trip rates were applied to the same methodology outlined for the traffic calculations, including the weekend trip rate adjustment. Table 2.1-38 (BAU Generation Rates and Vehicle Miles Based on Scaled Traffic Model) shows a total VMT for the low-density unmitigated scenario as 256,263,761 miles per year. In addition, the BAU scenario would release approximately 100,168 tonnes of CO_2e per year. Table 2.1-39 on page 2-98 (Mitigated GHG Emissions from Vehicles for the Year 2030 for BAU Scenario) shows that this is 30,479 miles per dwelling unit. The Project represents a 42 percent reduction in VMT and CO2e emissions per year compared to BAU.

As shown in Table 2.1-40 on page 2-99, the annual VMT per dwelling unit for the Project is 21,638 miles. A 1995 study prepared for the CARB determined that annual VMT per dwelling units under “smart growth” principles should be 22,000 to 25,000 miles for suburban level 3 areas.[145] The Project will generate less VMT on a per dwelling unit basis than the CARB report suggests for a "smart growth" development.

- **Municipal sources.** With regard to water and wastewater, the BAU comparison for water and wastewater treatment and distribution was based on a community that would use approximately 10,174 acre-feet of water annually (10,174 acre-feet of potable water and no recycled water) and, absent more detailed assessment of project-related wastewater quantities, assumed a comparable 10,174 acre-feet of wastewater.[146]

  Since the Applicant does not plan to implement any project design features beyond BAU for water and wastewater, these CO_2e emissions from the Project are expected to be equivalent to BAU. Table 2.1-41 on page 2-100 (Municipal Sources Comparison of Business-as-Usual to Proposed Project) summarizes this analysis. The implementation of the RPS will reduce CO_2 emissions from this source, somewhat, but this reduction has not been quantified.

  With regard to public lighting, the BAU comparison for public lighting assumes that energy efficient street lights will not be used. The proposed LCRSP encourages, but does not require, strategies to improve energy efficiency in lighting public areas. The Applicant plans to incorporate energy-saving lighting fixtures where feasible; however, any potential benefits were not quantified for this analysis. Table 2.1-41 (Municipal Sources Comparison of Business-as-Usual to Proposed Project) shows that the Project’s public lighting is equivalent to BAU.

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[145] JHK & Associates, Inc., Transportation-Related Land Use Strategies to Minimize Motor Vehicle Emissions: An Indirect Source Research Study, June 1995.

[146] For the purpose of this analysis, wastewater flows were assumed to equate potable water consumption. Wastewater flows are, however, typically less than water consumption based on water lost to lawn irrigation, swimming pools, washing cars, and other water consumption activities that do not result in the water being discharged into the sanitary sewer system.

Table 2.1-38
BAU Generation Rates and Vehicle Miles Based On Scaled Traffic Model

EVTM Mitigated Project Scenario[1]			URBEMIS-Based	Unmitigated Low-Density Scenario	
Total Daily Trip Ends	Product (Added Daily Trips)	Added Daily Vehicle Miles of Travel (VMT)	Ratio of Mitigated Trips to Unmitigated Low Density Trips[2]	Equivalent Unmitigated Low-Density Daily Added Trip Productions	Equivalent Unmitigated Low-Density Daily VMT[3]
91,513	47,545	498,387	141%	66,970	702,010

Notes:

BAU = business as usual

EVTM = East Valley Transportation Model

VMT = Vehicle Miles Traveled

1. The data for this scenario was provided to ENVIRON by Crain and Associates in their memorandum dated September 15, 2009, re: Lytle Creek Development Mobile Emission Analysis Input. The analysis was conducted using the EVTM. The EVTM model accounts for "physical design" mitigation measures inherent in the project plan, such as high residential density and local serving retail.
2. URBEMIS was used to quantify the relative difference in trip generation rates between the mitigated scenario and the unmitigated low-density scenario (see Table 2.1-25). The ratio of added trips in the two scenarios and the results of the EVTM model for the mitigated scenario were used to estimate the added daily trips and VMT for an unmitigated low-density scenario.
3. The two scenarios are assumed to have the same trip lengths, resulting in an increase in VMT proportional to the increase in trips.

Source: Crain and Associates, 2009, Re: Lytle Creek Development Mobile Emission Analysis Input; Table 5-8 of Revised Climate Change Technical Report.

The BAU comparison, including all sources described above for the Project, is summarized in Table 2.1-42 on page 2-101. As discussed previously, there are no differences between BAU and project emissions for construction, municipal and area sources; but there are differences in vegetation, building energy, and mobile source emissions. To determine the overall percentage reduction in CO_2e emissions, the annual and annualized emissions were summed for each scenario, and then the two total scenario values were compared. Using the approach, the overall reduction in GHG emissions for the Project relative to BAU is 32.7 percent. This reduction is attributed both to design elements incorporated into the Project (e.g., higher density development, energy efficient buildings); and to decreases in emission factors due to implementation of two AB 32 scoping plan measures: the Renewables Portfolio Standard, and the Pavley regulation. In addition, Table 2.1-43 on page 2-102 summarizes the BAU comparison if 33 percent RPS mandated for 2020 is accounted for in the Project's inventory. The greater reduction in energy-related emissions associated with RPS would result in an even greater reduction in project CO_2e emissions relative to BAU.

The GHG emission inventory for the Project was based on several conservative assumptions. In addition, anticipated State and federal regulatory developments are expected to result in lower GHG emissions from the Project than are represented in this analysis.

In sum, the Project results in an improvement over the BAU-scenario that is greater than the 28.5 percent improvement necessary to achieve AB 32's mandates. As the Project is consistent with AB 32, the Project would also not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHGs. The project's cumulative impact on GHG emissions and global climate change is considered less than significant.

Table 2.1-39
Mitigated GHG Emissions from Vehicles for the Year 2030 for BAU Scenario

Neighborhood	Annual Products[1] (Added Annual Trips)	Added Annual Vehicle Miles of Travel[1] (VMT)	Emission Factor Running[2] (g/mile)	Emission Factor Starts[3] (g/start)	Annual CO_2 Emissions Running (tonne)	Annual CO_2 Emissions Starts (tonne)	Total Annual CO_2 Emissions (tonne)	Total Annual Adjusted CO_2 Emissions[4] (tonne)	Total Annual CO_2e Emissions[5] (tonne)
Total	**24,444,125**	**256,233,761**	**367**	**104**	**94,001**	**2,538**	**96,539**	**95,160**	**100,168**

Notes:

CH_4 = Methane
CO_2 = Carbon Dioxide
CO_2e = Carbon Dioxide Equivalent
g = gram
GHG = Greenhouse Gas
HFC = Hydro fluorocarbon
mph = miles per hour
N_2O = Nitrous oxide
USEPA = United States Environmental Protection Agency
VMT = Vehicle Miles Traveled

1. Daily trips and VMT were modeled for weekday activity, consequently these estimates assume 365 weekdays.
2. Emission factors for vehicles based on EMFAC files for based on LDA, LDT1, LDT2, and motorcycle for San Bernardino at 30 mph (URBEMIS default).
3. Starting emission factors are based on the weighted average distribution of time between trip starts based on URBEMIS defaults.
4. Weekend traffic is approximately 95 percent of weekday traffic. Overall CO_2 emissions are consequently 98.6 percent of those calculated based on weekday activity only (1.0*5/7 + 0.95*2/7)
5. $CO_2e=CO_2/0.95$: The USEPA recommends assuming that CH_4, N_2O, and HFCs are 5 percent of emissions on a CO_2e basis.

Source: Table 5-9 of Revised Climate Change Technical Report.

Table 2.1-40
Lytle Creek Ranch Mobile Emissions in Context

	Annual Vehicle Miles Traveled		Annual Mobile CO_2e Emissions		Comparison to BAU % Reduction (VMT)	Comparison to BAU % Reduction (CO_2e)
	Total Miles[1,2]	Miles per Dwelling Unit[3]	Total Tonnes	Tonnes per Dwelling Unit[3]		
Lytle Creek Ranch	181,911,255	21,638	71,114	8	29%	29%
Lytle Creek Ranch with Pavley	181,911,255	21,638	57,265	7	29%	43%
BAU	256,233,761	30,479	100,168	12		

Notes:

BAU = business as usual

CO_2e = Carbon Dioxide Equivalent

LCR = Lytle Creek Ranch

VMT = Vehicle miles travelled

1. Lytle Creek Ranch vehicle miles as developed in mobile sources section.
2. "Business as usual" VMT assumes that no mitigation measures are taken and that the housing stock of Lytle Creek Ranch (8407 units) were built out at the same density as the nearby section of the City of Rialto.
3. Assumes Lytle Creek Ranch number of dwelling units is 8407.

Source: Table 5-10 of Revised Climate Change Technical Report.

Table 2.1-41
Municipal Sources Comparison of Business-as-Usual to Proposed Project

Scenario	Water/Wastewater Energy Use kW-hr/yr	Public Lighting (tonne CO_2e/yr)	Municipal Vehicles (tonne CO_2e/yr)	Total Municipal[1] (tonne CO_2e/yr)
BAU	8,151	1,061	1,227	12,509
Lytle Creek Ranch	8,151	1,061	1,227	12,509
Percent Reduction	0%	0%	0%	0%

Notes:
BAU = business as usual
CO_2e = Carbon Dioxide equivalents
kW-hr = kilowatt-hour
yr = year
1. Total municipal includes water/wastewater treatment, public lighting, and municipal vehicles. The direct wastewater emissions and municipal vehicle calculations are based on per capita usage and there are no emission factors available to reflect improvements over BAU.
Source: Table 5-11 of Revised Climate Change Technical Report.

2.1.6 Significant Unavoidable Adverse Effects

The Project has estimated GHG emissions of approximately 104,470 tonnes per year. As a result of the various design elements incorporated into the Project, the proposed LCRSP represent a 32.7 percent reduction from a BAU standpoint taking into consideration changes in emission factors due to implementation of the following two “Climate Change Scoping Plan” measures: (1) RPS; and (2) the Pavley regulation. Because the proposed LCRSP’s GHG emissions improve upon the BAU scenario by greater than the 28.5 percent improvement necessary to achieve AB 32's mandates, the Project’s cumulative impact on GHG emissions and global climate change is considered less than significant.

Table 2.1-42
GHG Emissions Comparison of BAU to Lytle Creek Ranch Including Pavley Standards

Source	GHG Emissions			Percentage Improvement Over BAU[1] (%)
	Units	BAU	Lytle Creek Ranch	
One-Time Emissions				
Vegetation[2]	Tonnes CO_2e total	32,388	-1,120	103.5%
Construction	Tonnes CO_2e total	257,552	257,552	0.0%
Total (One-Time Emissions)	Tonnes CO_2e total	**289,940**	**256,432**	**11.6%**
Buildout Emissions (Annual)				
Residential[3]	Tonnes CO_2e/year	27,975	21,530	23.0%
Non-Residential[4]		5,068	4,386	13.5%
Mobile[5]		100,168	57,265	42.8%
Municipal[6]		12,509	12,509	0.0%
Area		2,370	2,370	0.0%
Total (Annual Emissions)		**148,090**	**98,059**	**33.8%**
Combined One Time Annualized Emissions and Buildout Annual Emissions[7]	Tonnes CO_2e/year	**155,338**	**104,470**	**32.7%**

Notes:

BAU = business as usual

1. The percentage improvement over BAU is an estimate. There are some source categories where appropriate comparisons are not available. It is estimated that this value is on the conservative side.
2. BAU vegetation emissions are based on an additional 908 acres of native habitat being turned into settlements and no trees being planted.
3. BAU residential emissions reflect minimally Title-24 compliant homes without Energy Star appliances.
4. BAU non-residential emissions reflect minimally Title-24 compliant buildings with no renewable credits.
5. BAU mobile emissions is based on a comparison of trip rates adjusted for a less dense development (comparable to nearby City of Rialto) and no traffic mitigation measures.
6 Municipal emissions included here are related to water treatment, waste water treatment, street lighting, and municipal vehicles. This is a very conservative estimate since appropriate emission factors to adjust wastewater direct emissions are unavailable.
7. One-time emissions are annualized over 40 years and then added to the total annual emissions.

Source: Table 5-12 of Revised Climate Change Technical Report.

Table 2.1-43
GHG Emissions Comparison of BAU to Lytle Creek Ranch Including Pavley Standards and 33% RPS

Source	GHG Emissions			Percentage Improvement Over BAU1 (%)
	Units	BAU	Lytle Creek Ranch	
One-Time Emissions				
Vegetation[2]	Tonnes CO_2e total	32,388	-1,120	103.5%
Construction	Tonnes CO_2e total	257,552	257,552	0.0%
Total (One-Time Emissions)	Tonnes CO_2e total	**289,940**	**256,432**	**11.6%**
Buildout Emissions (Annual)				
Residential[3]	Tonnes CO_2e/year	27,975	19,900	28.9%
Non-Residential[4]		5,068	3,843	24.2%
Mobile[5]		100,168	57,265	42.8%
Municipal[6]		12,509	12,509	0%
Area		2,370	2,370	0%
Total (Annual Emissions)		**148,090**	**95,887**	**35.3%**
Combined One Time Annualized Emissions and Buildout Annual Emissions[7]	Tonnes CO_2e/year	**155,338**	**102,297**	**34.1%**

Notes:

BAU = business as usual

1. The percentage improvement over BAU is an estimate. There are some source categories where appropriate comparisons are not available. It is estimated that this value is on the conservative side. For vegetation, the reduction in emissions exceeds 100 percent relative to BAU because the addition of trees will increase carbon sequestration.
2. BAU vegetation emissions are based on an additional 908 acres of native habitat being turned into settlements and no trees being planted.
3. BAU residential emissions reflect minimally Title-24 compliant homes without Energy Star appliances.
4. BAU non-residential emissions reflect minimally Title-24 compliant buildings with no renewable credits.
5 BAU mobile emissions are based on a comparison of trip rates adjusted for a less dense development (comparable to nearby City of Rialto) and no traffic mitigation measures.
6. Municipal emissions included here are related to water treatment, waste water treatment, street lighting, and municipal vehicles. This is a very conservative estimate since appropriate emission factors to adjust wastewater direct emissions are unavailable.
7. One-time emissions are annualized over 40 years and then added to the total annual emissions.

Source: Table 5-13 of Revised Climate Change Technical Report.

2.2 Transportation/Traffic: "Sunnyvale" Analysis

Court Ruling

The EIR improperly assessed the Project's traffic impacts against future conditions as opposed to existing conditions. The City failed to proceed in the manner required by law in assessing traffic impacts.

Response

In response to the Court Ruling, Crain & Associates prepared an *Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project,* dated January 2012 (the "Sunnyvale" Analysis). In accordance with the Court Ruling, the "Sunnyvale" Analysis, which is in included in Appendix V-C and summarized below, compares existing physical conditions without the Project to existing physical conditions expected to be produced with the Project, as required by *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351 ("Sunnyvale").

2.2.1 Relationship to Transportation/Traffic Section of DEIR

In the Sunnyvale case, the court held that "a straightforward assessment of the impacts produced by the Project alone on the existing environment is the foundational information of an EIR even where secondary analyses are included." The "Sunnyvale" Analysis provided in Appendix V-C and discussed herein compares the traffic impacts produced by the Project alone against existing conditions as required by the Sunnyvale case.

The discussion provided in this RPDEIR serves as the analysis required under the Sunnyvale case and CEQA. The DEIR's Transportation/Traffic section (see Section 4.6, Transportation/Traffic, of the DEIR) assessed, among other things, the Project's traffic-related construction impacts, concluded that such impacts would be potentially significant unless mitigation was incorporated, and recommended mitigation measures be incorporated to reduce potential construction impacts to a less-than-significant level. That assessment remains valid under the Court Ruling.

The DEIR's Transportation/Traffic section also analyzed operational impacts of the Project on a cumulative level; such analysis also remains valid under the Court Ruling. That analysis incorporated forecasted traffic increases due to ambient growth and related projects through Year 2030 (the build-out year of the Project), and analyzed cumulative impacts on study area intersections, freeway segments, and the regional transportation system as a result of the Project. The analysis concluded that in Year 2030, a significant traffic impact would result at various freeway segments unless mitigation was incorporated, and recommended mitigation measures be incorporated to reduce potential impacts on freeway segments to less-than-significant levels. That assessment also remains valid under the Court Ruling. Moreover, as described further below, under the "Sunnyvale" Analysis, the Project would not result in any significant impacts (under Existing (2007) Conditions) at the study freeway segments.

In addition, the DEIR's Transportation/Traffic section determined that a significant cumulative traffic impact would result at 22 study intersections prior to mitigation. As such, the DEIR

recommended mitigation measures to reduce impacts to less-than-significant levels at those intersections. Specifically, Mitigation Measure 6-4 proposed fair-share mitigation for the Project's contribution to potentially significant impacts at those 22 intersections. As described further below, under the "Sunnyvale" Analysis, the Project would result in impacts (under Existing (2007) Conditions) at 10 of those 22 intersections, thus reducing the number of cumulative impacts. Accordingly, Mitigation Measure 6-4 has been revised to reflect the determination that 10 of the previously identified 22 intersection impacts (under future (2030) conditions) are deemed project-specific impacts, with the remaining 12 intersection impacts deemed cumulative impacts subject to the fair-share mitigation strategy.

2.2.2 Baseline: Existing (2007) Conditions

In this RPDEIR, the baseline physical conditions against which project traffic is compared to assess whether the Project would result in a significant impact are existing (2007) traffic volumes for the A.M. and P.M. peak-hour periods. For the Project, the study intersections and freeway segments were selected based on the identifications of traffic volumes that would exceed County congestion management program (CMP) growth standards. Based on those standards, a total of 75 study intersections and 29 study freeway segments were selected for analysis.

2.2.2.1 Intersections

As described in the DEIR, traffic counts and field observations for existing (2007) traffic volumes at study intersections were performed in the first three months of 2007. Those existing traffic volumes are reflected in Figure 4.6-4 of Section 4.6, Transportation/Traffic, of the DEIR, with the corresponding level of service (LOS)[147] and average vehicular delay shown in Table 4.6.4 of the DEIR, as well as Table 2.2-1 herein. The analysis of traffic conditions at the 63 existing (2007) study area intersections shows that all but 12 intersections (seven County CMP intersections and five study area intersections) are operating at LOS "D" or better during the peak hours. As shown in Table 2.2-1, the notation "Not Applicable" (N/A) identifies those intersections that do not currently exist but which are scheduled to be constructed by Year 2030.

2.2.2.2 Freeway Segments

As described in the DEIR, existing (2007) traffic volumes for freeway segments were obtained from Caltrans' traffic data. Peak-hour traffic counts for the segment of the State Route 210 (SR-210) Freeway between Sierra Avenue and Alder Avenue were based on current manual intersection counts at the Alder Avenue ramp interchange. The daily volume for this freeway segment was estimated based on the peak-hour volumes multiplied by the daily-to-peak-hours ratio at an adjacent freeway segment. For the data from Caltrans, the peak-hour volumes are for both directions combined and no directional splits were available at these segments. As a

[147] LOS describes the quality of service. Intersections with a LOS "A," LOS "B," or LOS "C," operate quite well. Typically, LOS "D" is the design level of service for many metropolitan street systems. LOS "E" represents volumes at or near the capacity of the facility and might result in stoppages of momentary duration and fairly unstable flow. LOS "F" occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages for a long duration. (See Table 4.6-3 of Section 4.6, Transportation/Traffic, of the DEIR).

result, directional splits were derived from directional freeway volume data from the San Bernardino County CMP where available. Where directional splits were not available, a 55/45 percent split was assumed. In addition, Caltrans' sources do not indicate whether the peak-hour volume represent A.M. or P.M. peak-hour conditions. However, the peak-hour volumes used from the Caltrans' annual volume data were assumed to be P.M. peak-hour volumes, and the A.M. peak-hour volumes were assumed to be 90 percent of the P.M. peak-hour volumes, per CMP guidelines.

Under CMP methodologies, the peak-hour directional freeway segment volumes and the number of lanes for each freeway segment were used to calculate the existing (2007) freeway volume-to-capacity (V/C) ratios and LOS in the Project vicinity. Existing traffic volumes are reflected in Table 4.6-6 of Section 4.6, Transportation/Traffic, of the DEIR, as well as Table 2.2-2 herein.

2.2.3 "Existing (2007) Conditions plus Project" Impact Analysis

In accordance with the Sunnyvale case, the "Sunnyvale" Analysis provided in Appendix V-C and summarized herein assumes no new roadway improvements beyond those already in place in 2011 (the year of the Court Ruling) and no traffic volume increases other than traffic generated by the Project. Provided below is a summary of the potential project-specific impacts to surface streets and freeway segments under the "Sunnyvale" Analysis, proposed mitigation measures, and a description of project-specific impacts after implementation of mitigation measures.

2.2.3.1 Surface Streets

The project's Traffic Study, included as part of the EIR,[148] analyzed 75 study intersections. In February 2008, land use revisions were made to the Project, which included a negative net change of 558 residential dwelling units from single-family detached homes to multi-family attached homes (with total dwelling units consistent at 8,407), a net decrease of approximately 15 acres of park use, and a net increase of approximately 9 acres of golf course use. As a result of revisions to the original development proposed, a review of the Project's Traffic Study was completed in February 2008.[149] The results of this study review indicated that the land use revisions made to the Project would generate fewer trips from the Project site during both the A.M. and P.M. peak hours and, therefore, result in less traffic impacts. Thus, in order to provide for a conservative "Existing (2007) Conditions plus Project" scenario, the "Sunnyvale" Analysis used the higher trip generation from the Project included in the Traffic Study. In addition, it should be noted that several important roadway routes were not yet available (i.e., not fully constructed) to vehicular traffic within this portion of San Bernardino County during the traffic data collection period for the Traffic Study in the first quarter of 2007. These included the freeway improvements that provided a gap closure between SR-210 and State Route 30 (SR-30) and the Glen Helen Parkway extension from the SR-210 ramp connections to Lytle Creek

[148] Crain & Associates, Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, City of Rialto, February 2008 (Appendix II-A-F to the DEIR).
[149] Crain & Associates, Lytle Creek Ranch Specific Plan—Project Trip Generation Comparison, February 26, 2008 (Appendix II-A-G to the DEIR).

Road. Thus, the analysis of Existing (2007) Conditions within the "Sunnyvale" Analysis reflects traffic conditions prior to the completion of the aforementioned improvements.

The "Existing (2007) Conditions plus Project" traffic analysis was completed by incorporating the same methodology used in the Traffic Study and included as part of the EIR. Specifically, in order to generate the traffic volumes anticipated under the Project, as directed by San Bernardino Associated Governments (SanBAG) staff, the East Valley Transportation Model (EVTM) developed by the City of San Bernardino was utilized and refined to include site-specific land use and network data. Utilizing the EVTM, City of San Bernardino staff produced traffic volumes for "Existing (2007) Conditions" and traffic volumes for "Existing (2007) Conditions plus Project." Under both of these conditions, the EVTM was modified to include only the traffic routes that existed during the collection of the traffic count data in the first quarter of 2007. The resulting intersection volumes are depicted in Figures 2.2-1A and 2.2-1B on pages 2-107 and 2-108 and Figures 2.2-2A and 2.2-2B on pages 2-109 and 2-110.

The "Existing (2007) Conditions plus Project" volumes were then analyzed using the same Critical Movement Analysis (CMA) procedures as used for the analysis contained in the Traffic Study and the EIR. In addition, the "Sunnyvale" Analysis assumed the same lane configurations as the "Existing (2007) Conditions" contained in the Traffic Study and the EIR (except for the addition of the roadways within the Project site).

Threshold of Significance

As set forth in the Traffic Study and EIR, intersection operations at LOS D or better during the peak hour are generally acceptable under the City of Rialto's intersection impact policy. Therefore, any intersection operating at LOS E or F is considered deficient. A traffic impact is considered significant if the Project contributes measurable traffic to, and substantially and adversely changes, the LOS at any location projected to experience deficient operations under existing conditions. For the "Sunnyvale" Analysis, a significant project traffic impact would occur where the Project would contribute 50 or more peak-hour trips at a location and where project traffic would cause conditions to degrade below the City's goal of LOS D. In addition, pursuant to standard City of Rialto intersection impact criteria, which are consistent with the San Bernardino County CMP, an impact is considered significant for an intersection if the individual impact for either and/or both peak hours is found to be significant.

Project Impacts Prior to Mitigation

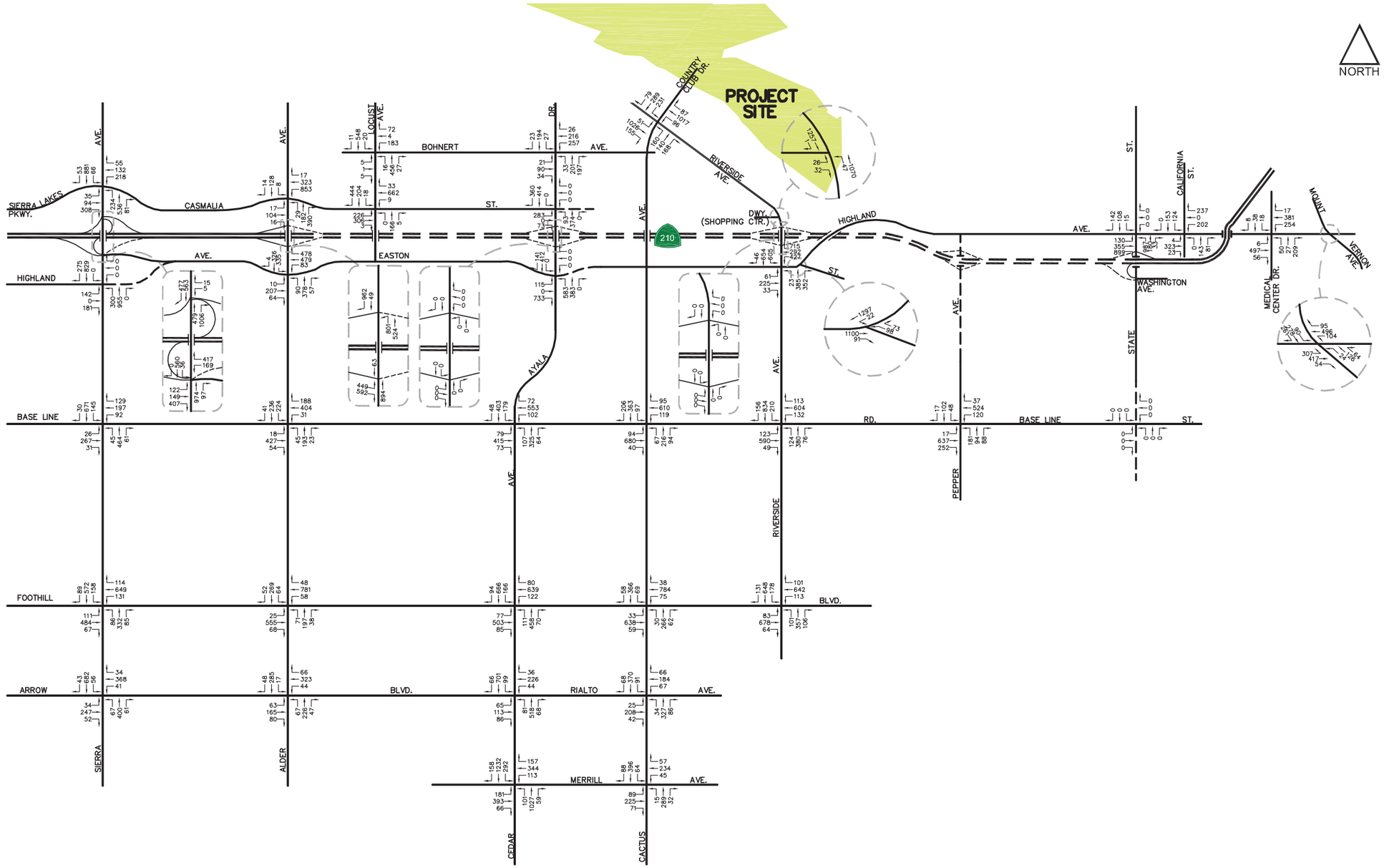
As shown in Table 2.2-1 on page 2-111, the "Sunnyvale" Analysis concludes that the following 16 study intersections would be significantly impacted by the Project under the "Existing (2007) Conditions plus Project" scenario when no roadway improvements or cumulative traffic growth are included:

7. I-215 Southbound On/Off Ramps & University Parkway during the P.M. peak hour
8. I-15 Southbound On/Off Ramps & Glen Helen Parkway during the P.M. peak hour
9. I-15 Northbound On/Off Ramps & Glen Helen Parkway during the P.M. peak hour
11. Lytle Creek Road & Sierra Avenue during the P.M. peak hour

Source: Crain & Associates, December 21, 2011.

matrix environmental

Figure 2.2-1A
Existing (2007) Traffic Volumes With Project A.M. Peak Hour



Source: Crain & Associates, December 21, 2011.

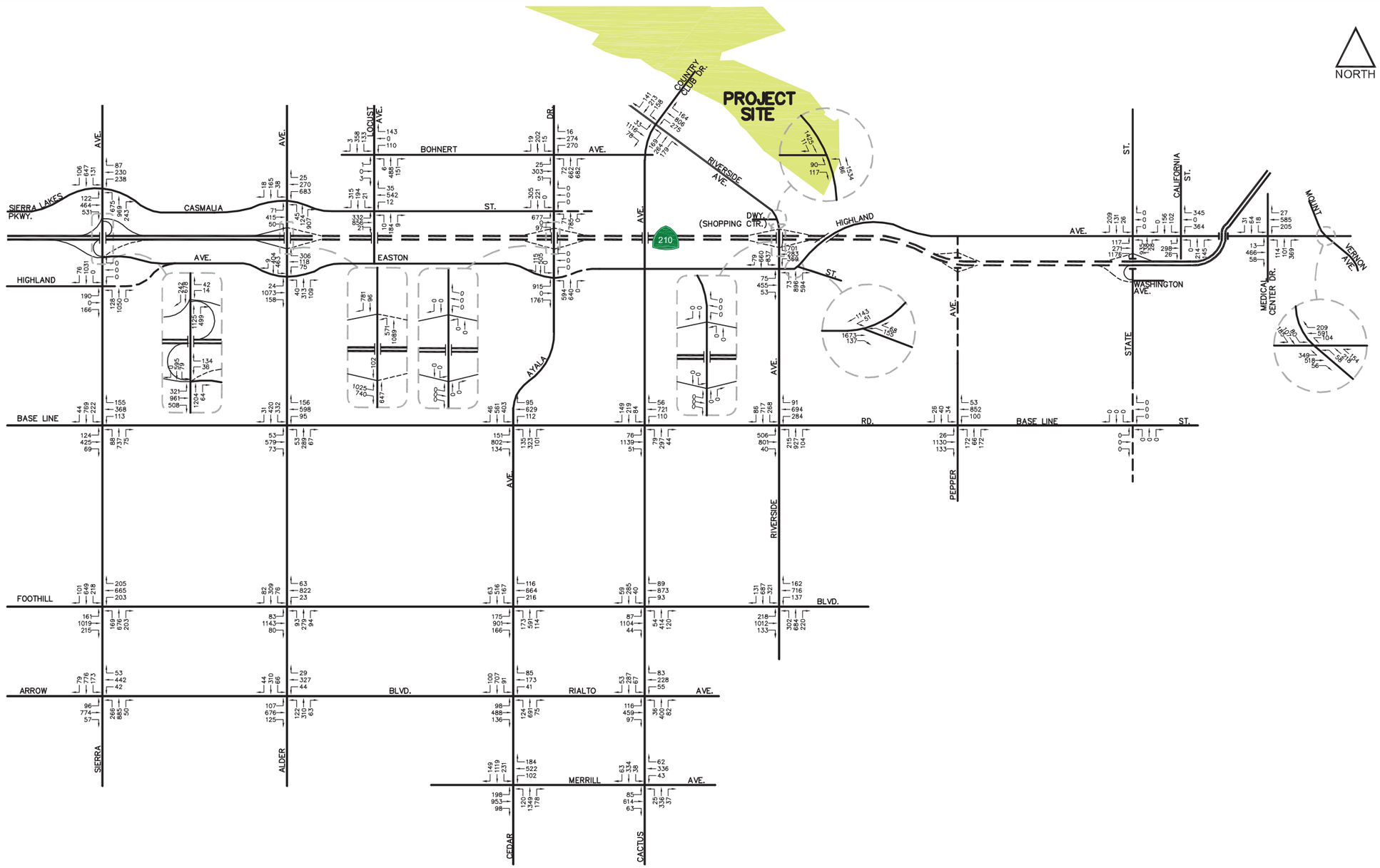
matrix environmental

Figure 2.2-1B
Existing (2007) Traffic Volumes With Project A.M. Peak Hour

Source: Crain & Associates, December 21, 2011.

matrix environmental

Figure 2.2-2A
Existing (2007) Traffic Volumes With Project P.M. Peak Hour



Source: Crain & Associates, December 21, 2011.

matrix environmental

Figure 2.2-2B
Existing (2007) Traffic Volumes With Project P.M. Peak Hour

Table 2.2-1
Level of Service Summary
Existing (2007) Conditions Plus Project

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS	
1	I-215 NB On/Off Ramps/Arrowhead Boulevard &	AM	[1]	10.2	B	[1]	10.5	B	
	Devore Road	PM	[1]	14.2	B	[1]	15.9	C	
2	Cajon Boulevard &	AM	[1]	9.6	A	[1]	9.7	A	
	I-215 SB On/Off Ramps	PM	[1]	9.4	A	[1]	9.5	A	
3	Cajon Boulevard &	AM	0.177	8.9	A	0.188	9.3	A	
	Glen Helen Parkway	PM	0.497	12.0	B	0.551	12.8	B	
4	I-215 NB On/Off Ramps &	AM	[1]	20.6	C	[1]	21.2	C	
	Palm Avenue	PM	[1]	30.8	D	[1]	34.2	D	
5	I-215 SB On/Off Ramps &	AM	1.091	46.7	E	1.099	48.5	E	
	Palm Avenue	PM	0.865	26.3	D	0.893	29.0	D	
6	I-215 NB On/Off Ramps &	AM	0.576	15.9	B	0.578	16.0	B	
	University Parkway	PM	0.694	17.0	B	0.700	17.1	B	
7	I-215 SB On/Off Ramps &	AM	0.810	20.3	C	0.828	21.3	C	
	University Parkway	PM	1.162	72.3	E	1.180	76.7	E	*
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A	[1]	16.7	C	
	Glen Helen Parkway	PM	[1]	10.6	B	[1]	35.4	E	*
9	I-15 NB On/Off Ramps &	AM	[1]	8.7	A	[1]	10.0	A	
	Glen Helen Parkway	PM	[1]	37.1	E	[1]	207.2	F	*
10	Lytle Creek Road &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Glen Helen Parkway [2]	PM	N/A	N/A	N/A	N/A	N/A	N/A	
11	Lytle Creek Road &	AM	[1]	9.0	A	[1]	13.1	B	
	Sierra Avenue	PM	[1]	11.9	B	[1]	236.5	F	*
12	I-15 SB On/Off Ramps &	AM	[1]	43.8	E	[1]	275.2	F	*
	Sierra Avenue	PM	[1]	15.5	C	[1]	252.9	F	
13	I-15 NB On/Off Ramps &	AM	[1]	30.3	D	[1]	293.2	F	*
	Sierra Avenue	PM	[1]	25.6	D	[1]	445.3	F	*
14	I-15 SB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Duncan Canyon Road [3]	PM	N/A	N/A	N/A	N/A	N/A	N/A	
15	I-15 NB On/Off Ramps/Lytle Creek Road &	AM	[1]	8.8	A	[1]	8.8	A	
	Duncan Canyon Road [3]	PM	[1]	8.8	A	[1]	8.8	A	
16	I-15 SB On/Off Ramps &	AM	1.288	114.6	F	1.304	118.1	F	*
	Summit Avenue	PM	0.864	21.2	C	0.886	22.9	C	
17	I-15 NB On/Off Ramps &	AM	0.791	19.1	B	0.819	20.4	C	
	Summit Avenue	PM	1.240	99.4	F	1.279	110.6	F	*

Table 2.2-1 (Continued)
Level of Service Summary
Existing (2007) Conditions Plus Project

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS	
18	Riverside Avenue &	AM	[1]	40.7	E	[1]	399.2	F	*
	Sierra Avenue	PM	[1]	22.8	C	[1]	406.0	F	*
19	Riverside Avenue &	AM	0.336	16.1	B	0.750	23.0	C	
	Live Oak Avenue	PM	0.253	14.7	B	1.040	53.0	D	
20	Riverside Avenue &	AM	[1]	12.6	B	0.430	19.3	B	
	Alder Avenue	PM	[1]	12.6	B	0.884	42.0	D	
21	Riverside Avenue &	AM	[1]	16.4	C	0.541	24.1	C	
	Locust Avenue	PM	[1]	12.8	B	0.874	42.9	D	
22	Riverside Avenue &	AM	[1]	35.3	E	1.069	58.6	E	*
	Linden Avenue	PM	[1]	15.3	C	1.127	91.7	F	*
23	Riverside Avenue &	AM	0.577	16.5	B	0.732	16.0	B	
	Ayala Drive	PM	0.447	16.2	B	0.652	14.7	B	
24	Riverside Avenue &	AM	0.307	7.3	A	0.429	8.8	A	
	Knollwood Avenue	PM	0.250	5.6	A	0.433	8.2	A	
25	Riverside Avenue &	AM	0.443	11.8	B	0.689	16.2	B	
	Country Club Drive	PM	0.408	12.2	B	0.865	22.4	C	
26	Riverside Avenue &	AM	0.308	6.8	A	0.452	6.1	A	
	Driveway (for Shopping Center)	PM	0.436	9.6	A	0.560	8.5	A	
27	Casa Grande Drive &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Sierra Avenue	PM	N/A	N/A	N/A	N/A	N/A	N/A	
28	Casa Grande Drive &	AM	0.175	17.4	B	0.208	17.5	B	
	Alder Avenue	PM	0.227	16.6	B	0.362	19.3	B	
29	Casa Grande Drive &	AM	[1]	12.5	B	[1]	13.9	B	
	Locust Avenue	PM	[1]	10.7	B	[1]	14.3	B	
30	Summit Avenue &	AM	0.279	12.6	B	0.360	11.6	B	
	Sierra Avenue	PM	0.714	16.3	B	0.825	22.0	C	
31	Bohnert Avenue &	AM	[1]	75.2	F	[1]	210.6	F	*
	Locust Avenue	PM	[1]	24.6	C	[1]	171.1	F	*
32	Bohnert Avenue &	AM	0.315	14.2	B	0.465	14.7	B	
	Ayala Drive	PM	0.624	15.5	B	0.817	23.6	C	
33	Sierra Lakes Parkway/Casmalia Street &	AM	0.474	18.1	B	0.501	17.9	B	
	Sierra Avenue	PM	0.701	19.8	B	0.737	20.3	C	
34	Casmalia Street &	AM	0.836	33.3	C	0.931	49.3	D	
	Alder Avenue	PM	1.187	124.2	F	1.331	173.2	F	*
35	Casmalia Street &	AM	0.814	35.5	D	0.896	46.3	D	
	Locust Avenue	PM	0.711	28.0	C	0.796	37.7	D	
36	Casmalia Street &	AM	0.437	14.9	B	0.510	15.1	B	
	Ayala Drive	PM	0.624	18.3	B	0.721	21.3	C	
37	SR-210 Freeway WB On/Off Ramps &	AM	0.147	1.1	A	0.174	1.4	A	
	Sierra Avenue	PM	0.208	1.4	A	0.238	1.9	A	

Table 2.2-1 (Continued)
Level of Service Summary
Existing (2007) Conditions Plus Project

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS	
38	SR-210 Freeway EB On/Off Ramps &	AM	0.747	23.5	C	0.782	24.7	C	
	Sierra Avenue	PM	0.903	40.0	D	0.947	47.6	D	
39	SR-210 Freeway WB On/Off Ramps &	AM	1.029	42.7	D	1.123	67.3	E	*
	Alder Avenue	PM	0.807	10.8	B	0.868	12.8	B	
40	SR-210 Freeway EB On/Off Ramps &	AM	0.628	12.6	B	0.651	13.0	B	
	Alder Avenue	PM	0.796	13.6	B	0.883	17.0	B	
41	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Ayala Drive	PM	N/A	N/A	N/A	N/A	N/A	N/A	
42	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Ayala Drive	PM	N/A	N/A	N/A	N/A	N/A	N/A	
43	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Riverside Avenue	PM	N/A	N/A	N/A	N/A	N/A	N/A	
44	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Riverside Avenue	PM	N/A	N/A	N/A	N/A	N/A	N/A	
45	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Pepper Avenue	PM	N/A	N/A	N/A	N/A	N/A	N/A	
46	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	Pepper Avenue	PM	N/A	N/A	N/A	N/A	N/A	N/A	
47	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	State Street	PM	N/A	N/A	N/A	N/A	N/A	N/A	
48	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	State Street	PM	N/A	N/A	N/A	N/A	N/A	N/A	
49	Highland Avenue &	AM	0.683	18.2	B	0.773	20.0	C	
	State Street	PM	0.764	19.6	B	0.860	23.6	C	
50	Highland Avenue &	AM	0.325	10.2	B	0.327	10.4	B	
	California Street	PM	0.439	10.7	B	0.466	10.6	B	
51	Highland Avenue &	AM	0.299	8.8	A	0.304	8.7	A	
	Medical Center Drive	PM	0.405	11.0	B	0.423	10.9	B	
52	Highland Avenue &	AM	0.552	17.4	B	0.578	17.7	B	
	Mount Vernon Avenue	PM	0.596	17.5	B	0.621	17.7	B	
53	Highland Avenue &	AM	0.467	9.5	A	0.497	9.4	A	
	Sierra Avenue	PM	0.398	8.4	A	0.451	8.1	A	
54	Highland Avenue/Easton Street &	AM	0.787	30.2	C	0.815	32.6	C	
	Alder Avenue	PM	0.885	38.0	D	0.967	48.3	D	
55	Easton Street &	AM	0.753	19.5	B	0.773	19.9	B	
	Ayala Drive	PM	1.120	65.5	E	1.164	79.1	E	*
56	Easton Street &	AM	0.956	46.9	D	1.159	88.9	F	*
	Riverside Avenue	PM	1.202	101.5	F	1.616	195.4	F	*
57	Easton Street &	AM	0.431	3.5	A	0.471	3.4	A	
	Highland Avenue	PM	0.620	4.5	A	0.670	4.7	A	

Table 2.2-1 (Continued)
Level of Service Summary
Existing (2007) Conditions Plus Project

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS	
58	Baseline Road &	AM	0.381	17.8	B	0.410	17.6	B	
	Sierra Avenue	PM	0.695	22.0	C	0.744	22.9	C	
59	Baseline Road &	AM	0.684	23.6	C	0.718	25.5	C	
	Alder Avenue	PM	0.919	46.8	D	0.969	56.2	E	*
60	Baseline Road &	AM	0.459	19.0	B	0.496	19.3	B	
	Cedar Avenue/Ayala Drive	PM	0.671	21.2	C	0.697	22.0	C	
61	Baseline Road &	AM	0.579	19.6	B	0.621	20.5	C	
	Cactus Avenue	PM	0.693	18.8	B	0.740	20.7	C	
62	Baseline Road &	AM	0.647	21.4	C	0.711	22.6	C	
	Riverside Avenue	PM	0.792	25.8	C	1.026	51.9	D	
63	Baseline Road &	AM	0.288	8.2	A	0.320	8.2	A	
	Pepper Avenue	PM	0.441	6.6	A	0.468	6.6	A	
64	Baseline Road &	AM	N/A	N/A	N/A	N/A	N/A	N/A	
	State Street	PM	N/A	N/A	N/A	N/A	N/A	N/A	
65	Foothill Boulevard &	AM	0.532	19.1	B	0.553	19.4	B	
	Sierra Avenue	PM	0.910	29.4	C	0.941	32.1	C	
66	Foothill Boulevard &	AM	0.449	13.4	B	0.462	13.7	B	
	Alder Avenue	PM	0.639	15.1	B	0.663	15.6	B	
67	Foothill Boulevard &	AM	0.598	20.0	B	0.606	20.1	C	
	Cedar Avenue	PM	0.807	25.0	C	0.815	25.4	C	
68	Foothill Boulevard &	AM	0.473	14.3	B	0.491	14.5	B	
	Cactus Avenue	PM	0.749	17.8	B	0.770	18.4	B	
69	Foothill Boulevard &	AM	0.610	20.0	C	0.644	20.6	C	
	Riverside Avenue	PM	0.905	32.2	C	0.931	35.8	D	
70	Arrow Boulevard &	AM	0.430	17.7	B	0.452	17.7	B	
	Sierra Avenue	PM	0.776	26.0	C	0.789	26.9	C	
71	Arrow Boulevard &	AM	0.305	18.5	B	0.314	18.6	B	
	Alder Avenue	PM	0.647	19.8	B	0.661	22.5	C	
72	Rialto Avenue &	AM	0.449	16.2	B	0.451	16.2	B	
	Cedar Avenue	PM	0.598	19.7	B	0.601	19.8	B	
73	Rialto Avenue &	AM	0.206	8.9	A	0.216	8.8	A	
	Cactus Avenue	PM	0.317	9.7	A	0.325	9.8	A	
74	Merrill Avenue &	AM	0.714	17.6	B	0.684	17.2	B	
	Cedar Avenue	PM	0.986	32.2	C	0.988	32.5	C	
75	Merrill Avenue &	AM	0.254	14.0	B	0.264	14.0	B	
	Cactus Avenue	PM	0.358	13.1	B	0.366	13.3	B	

* Denotes a significant project traffic impact, prior to mitigation.
N/A Intersection does not currently (2007) exist, but is scheduled to be constructed by the study year 2030.

Source: Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, Crain and Associates, January 2012.

12. I-15 Southbound On/Off Ramps & Sierra Avenue during the A.M. peak hour

13. I-15 Northbound On/Off Ramps & Sierra Avenue during both the A.M. and P.M. peak hours[150]

16. I-15 Southbound On/Off Ramps & Summit Avenue during the A.M. peak hour

17. I-15 Northbound On/Off Ramps & Summit Avenue during the P.M. peak hour

18. Riverside Avenue & Sierra Avenue during both the A.M. and P.M. peak hours

22. Riverside Avenue & Linden Avenue during both the A.M. and P.M. peak hours

31. Bohnert Avenue & Locust Avenue during both the A.M. and P.M. peak hours

34. Casmalia Street & Alder Avenue during the P.M. peak hour

39. SR-210 Westbound On/Off Ramps & Alder Avenue during the A.M. peak hour

55. Easton Street & Ayala Drive during the P.M. peak hour

56. Easton Street & Riverside Avenue during both the A.M. and P.M. peak hours

59. Baseline Road & Alder Avenue during the P.M. peak hour

These 16 significantly impacted intersections, pre-mitigation, were determined to be project-specific impacts given the nature of the "Sunnyvale" Analysis. Of these 16 intersections significantly impacted under the "Existing (2007) Conditions plus Project" scenario, 10 of these intersections were found to be significantly impacted, prior to mitigation, by project traffic under the "Future (2030) Conditions plus Project" scenario (i.e., under cumulative conditions) as analyzed in the Traffic Study and the EIR. These 10 overlapping intersections are as follows:

7. I-215 Southbound On/Off Ramps & University Parkway

11. Lytle Creek Road & Sierra Avenue

12. I-15 Southbound On/Off Ramps & Sierra Avenue

13. I-15 Northbound On/Off Ramps & Sierra Avenue

16. I-15 Southbound On/Off Ramps & Summit Avenue

17. I-15 Northbound On/Off Ramps & Summit Avenue

18. Riverside Avenue & Sierra Avenue

[150] Pursuant to standard City of Rialto criteria, which is consistent with the San Bernardino County CMP, an impact is considered significant for an intersection if the individual impact for either and/or both peak hours is found to be significant.

22. Riverside Avenue & Linden Avenue

55. Easton Street & Ayala Drive

59. Baseline Road & Alder Avenue

As set forth below, each of these significant intersection impacts can be mitigated to below the level of significance. While the remaining 6 intersections (Intersections 8, 9, 31, 34, 39, and 56) that were found to be significant under the "Existing (2007) Conditions plus Project" scenario were not found to be significant under the "Future (2030) Conditions plus Project" scenario analyzed in the EIR, as described further below, with already completed freeway and roadway system improvements, as well as the implementation of mitigation measures, impacts at these intersections would also be reduced to a less than significant level.

2.2.3.2 Freeway Segments

In order to analyze the impact of the "Existing (2007) Conditions plus Project" scenario on the regional transportation system (i.e., the freeway network), the EVTM was used and analyzed. For the "Sunnyvale" Analysis, as with the analysis in the Traffic Study and the EIR, a total of 29 freeway segments near the Project site were selected based on the probable routes that would be followed by project traffic. These freeway segments included those segments most likely to be significantly impacted by the Project.

Threshold of Significance

As indicated in the San Bernardino County CMP, the adopted LOS standard for the CMP system is the minimal standard allowed under Section 65089(b)(1)(B) of the California Government Code, defined as LOS E for all segments and intersections, except those designated LOS F in the CMP. As such, for the "Sunnyvale" Analysis, a significant project traffic impact to the freeway network is defined to be those freeway segments where the Project would cause conditions to degrade below LOS E, except for those freeway segments designated LOS F in the CMP.

Project Impacts Prior to Mitigation

As shown in Table 2.2-2 on page 2-117, the Project would not result in significant impacts at any of the 29 study freeway segments under the "Existing (2007) Conditions plus Project" scenario.

2.2.4 Recent Roadway Improvements and Recommended Mitigation Measures

As noted above, several important roadway routes were not yet completed during the traffic data collection period for the Traffic Study that occurred during the first quarter of 2007. These included the additional routes resulting from the SR-210/SR-30 freeway gap closure project and the Glen Helen Parkway extension, as well as other surface roadway improvements around the Project site.The SR-210/SR-30 freeway gap closure project provides for direct freeway travel from San Fernando Valley and Pasadena to San Bernardino. In addition, the Glen Helen Parkway extension provides for a direct connection from Lytle Creek Road to the I-15 Freeway.

Table 2.2-2
Freeway Level of Service Summary
Existing (2007) Conditions and Existing (2007) Conditions Plus Project

						Existing (2007) Without Project				Existing (2007) With Project			
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS
1	Ontario Fwy (I-15) between	AM	NB	3	6900	133,600	3,600	0.52	A	136,200	3,700	0.54	A
	Barstow Fwy (I-215) and		SB	3	6900		5,400	0.78	C		5,500	0.80	C
	Glen Helen Parkway	PM	NB	3	6900		6,000	0.87	D		6,100	0.88	D
			SB	3	6900		4,000	0.58	A		4,200	0.61	B
2	Ontario Fwy (I-15) between	AM	NB	3	6900	134,700	3,600	0.52	A	143,200	3,800	0.55	A
	Glen Helen Parkway and		SB	3	6900		5,500	0.80	C		5,900	0.86	D
	Sierra Ave	PM	NB	3	6900		6,100	0.88	D		6,500	0.94	E
			SB	3	6900		4,000	0.58	A		4,300	0.62	B
3	Ontario Fwy (I-15) between	AM	NB	4	9200	134,700	3,600	0.39	A	145,100	3,800	0.41	A
	Sierra Ave and		SB	4	9200		5,500	0.60	A		6,100	0.66	B
	Duncan Canyon Road	PM	NB	4	9200		6,100	0.66	B		6,600	0.72	C
			SB	4	9200		4,000	0.43	A		4,400	0.48	A
4	Ontario Fwy (I-15) between	AM	NB	4	9200	134,700	3,600	0.39	A	145,100	3,800	0.41	A
	Duncan Canyon Road and		SB	4	9200		5,500	0.60	A		6,100	0.66	B
	Summit Ave	PM	NB	4	9200		6,100	0.66	B		6,600	0.72	C
			SB	4	9200		4,000	0.43	A		4,400	0.48	A
5	Ontario Fwy (I-15) between	AM	NB	4	9200	142,800	3,800	0.41	A	151,000	3,900	0.42	A
	Summit Ave and		SB	4	9200		5,700	0.62	B		6,200	0.67	B
	State Route 210 Fwy	PM	NB	4	9200		6,400	0.70	B		6,800	0.74	C
			SB	4	9200		4,200	0.46	A		4,500	0.49	A
6	Barstow Fwy (I-215) between	AM	NB	2	4600	52,000	1,600	0.35	A	53,600	1,700	0.37	A
	Ontario Fwy (I-15) and		SB	2	4600		2,400	0.52	A		2,400	0.52	A
	Devore Road	PM	NB	2	4600		2,700	0.59	A		2,900	0.63	B
			SB	2	4600		1,800	0.39	A		1,800	0.39	A
7	Barstow Fwy (I-215) between	AM	NB	2	4600	62,200	1,900	0.41	A	65,600	2,000	0.43	A
	Devore Road and		SB	2	4600		2,900	0.63	B		3,100	0.67	B
	Palm Ave	PM	NB	2	4600		3,200	0.70	B		3,400	0.74	C
			SB	2	4600		2,100	0.46	A		2,200	0.48	A
8	Barstow Fwy (I-215) between	AM	NB	2	4600	61,200	1,900	0.41	A	63,700	1,900	0.41	A
	Palm Ave and		SB	2	4600		2,800	0.61	B		3,000	0.65	B
	University Parkway	PM	NB	2	4600		3,100	0.67	B		3,200	0.70	B
			SB	2	4600		2,100	0.46	A		2,200	0.48	A
9	Barstow Fwy (I-215) between	AM	NB	3	6900	86,700	2,800	0.41	A	88,700	2,800	0.41	A
	University Parkway and		SB	3	6900		4,200	0.61	B		4,300	0.62	B
	State Route 30 Fwy	PM	NB	3	6900		4,700	0.68	B		4,800	0.70	B
			SB	3	6900		3,100	0.45	A		3,200	0.46	A
10	Barstow Fwy (I-215) between	AM	NB	2	4600	61,200	2,100	0.46	A	67,700	2,200	0.48	A
	State Route 30 Fwy and		SB	2	4600		2,900	0.63	B		3,300	0.72	C
	Mt Vernon Ave/27th St	PM	NB	2	4600		3,200	0.70	B		3,600	0.78	C
			SB	2	4600		2,300	0.50	A		2,600	0.57	A

Table 2.2-2 (Continued)
Freeway Level of Service Summary
Existing (2007) Conditions and Existing (2007) Conditions Plus Project

						Existing (2007) Without Project				Existing (2007) With Project			
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS
11	Barstow Fwy (I-215) between	AM	NB	2	4600	68,300	2,200	0.48	A	61,600	2,200	0.48	A
	Mt Vernon Ave/27th St and		SB	2	4600		3,000	0.65	B		2,400	0.52	A
	Highland Ave	PM	NB	2	4600		3,400	0.74	C		3,400	0.74	C
			SB	2	4600		2,400	0.52	A		2,000	0.43	A
12	I-215 Fwy between	AM	NB	2	4600	72,400	2,200	0.48	A	73,300	2,200	0.48	A
	Highland Ave and		SB	2	4600		3,100	0.67	B		3,100	0.67	B
	Massachusetts Ave	PM	NB	2	4600		3,400	0.74	C		3,400	0.74	C
			SB	2	4600		2,500	0.54	A		2,500	0.54	A
13	I-215 Fwy between	AM	NB	2	4600	74,500	2,200	0.48	A	75,200	2,300	0.50	A
	Massachusetts Ave and		SB	2	4600		3,100	0.67	B		3,100	0.67	B
	State Route 259 Fwy	PM	NB	2	4600		3,400	0.74	C		3,600	0.78	C
			SB	2	4600		2,500	0.54	A		2,500	0.54	A
14	I-215 Fwy between	AM	NB	3	6900	138,700	4,400	0.64	B	139,600	4,400	0.64	B
	State Route 259 Fwy and		SB	3	6900		5,400	0.78	C		5,500	0.80	C
	Baseline St	PM	NB	3	6900		5,900	0.86	D		6,000	0.87	D
			SB	3	6900		4,900	0.71	C		4,900	0.71	C
15	I-215 Fwy between	AM	NB	3	6900	154,000	4,900	0.71	C	154,900	4,900	0.71	C
	Baseline St and 5th St		SB	3	6900		6,000	0.87	D		6,100	0.88	D
		PM	NB	3	6900		6,600	0.96	E		6,600	0.96	E
			SB	3	6900		5,400	0.78	C		5,400	0.78	C
16	I-215 Fwy between	AM	NB	3	6900	155,100	5,500	0.80	C	156,000	5,500	0.80	C
	5th St and 2nd St		SB	3	6900		5,500	0.80	C		5,600	0.81	D
		PM	NB	3	6900		6,100	0.88	D		6,100	0.88	D
			SB	3	6900		6,100	0.88	D		6,200	0.90	D
17	I-215 Fwy between	AM	NB	4	9200	170,400	6,100	0.66	B	171,000	6,100	0.66	B
	2nd St and Mill St		SB	4	9200		6,100	0.66	B		6,100	0.66	B
		PM	NB	4	9200		6,700	0.73	C		6,700	0.73	C
			SB	4	9200		6,700	0.73	C		6,700	0.73	C
18	State Route 210 Fwy between	AM	WB	3	6900	64,300	2,500	0.36	A	68,300	2,500	0.36	A
	Ontario Fwy (I-15) and		EB	3	6900		2,000	0.29	A		2,100	0.30	A
	Cherry Ave	PM	WB	3	6900		2,300	0.33	A		2,200	0.32	A
			EB	3	6900		2,800	0.41	A		3,500	0.51	A
19	State Route 210 Fwy between	AM	WB	3	6900	57,100	2,200	0.32	A	58,200	2,300	0.33	A
	Cherry Ave and Citrus Ave		EB	3	6900		1,800	0.26	A		1,800	0.26	A
		PM	WB	3	6900		2,000	0.29	A		2,000	0.29	A
			EB	3	6900		2,500	0.36	A		2,700	0.39	A
20	State Route 210 Fwy between	AM	WB	2	4600	51,000	2,000	0.43	A	52,100	2,100	0.46	A
	Citrus Ave and Sierra Ave		EB	2	4600		1,600	0.35	A		1,600	0.35	A
		PM	WB	2	4600		1,800	0.39	A		1,800	0.39	A
			EB	2	4600		2,200	0.48	A		2,400	0.52	A

Table 2.2-2 (Continued)
Freeway Level of Service Summary
Existing (2007) Conditions and Existing (2007) Conditions Plus Project

						Existing (2007) Without Project				Existing (2007) With Project			
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS
21	State Route 210 Fwy between	AM	WB	2	4600	35,800	1,600	0.35	A	36,700	1,700	0.37	A
	Sierra Ave and Alder Ave		EB	2	4600		1,000	0.22	A		1,000	0.22	A
		PM	WB	2	4600		1,300	0.28	A		1,300	0.28	A
			EB	2	4600		1,500	0.33	A		1,500	0.33	A
22	State Route 210 Fwy between	AM	WB	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]
	Alder Ave and Ayala Dr		EB										
		PM	WB										
			EB										
23	State Route 210 Fwy between	AM	WB	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]
	Ayala Dr and Riverside Ave		EB										
		PM	WB										
			EB										
24	State Route 210 Fwy between	AM	WB	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]
	Riverside Ave and		EB										
	Pepper Ave	PM	WB										
			EB										
25	State Route 210 Fwy between	AM	WB	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]
	Pepper Ave and State St		EB										
		PM	WB										
			EB										
26	State Route 210 Fwy between	AM	WB	2	4600	30,600	1,400	0.30	A	31,700	1,400	0.30	A
	State St and		EB	2	4600		1,100	0.24	A		1,200	0.26	A
	Barstow Fwy (I-215)	PM	WB	2	4600		1,200	0.26	A		1,200	0.26	A
			EB	2	4600		1,500	0.33	A		1,500	0.33	A
27	State Route 30 Fwy between	AM	WB	2	4600	53,000	2,400	0.52	A	54,200	2,400	0.52	A
	Barstow Fwy (I-215) and H St		EB	2	4600		1,900	0.41	A		2,000	0.43	A
		PM	WB	2	4600		2,200	0.48	A		2,200	0.48	A
			EB	2	4600		2,600	0.57	A		2,600	0.57	A
28	State Route 30 Fwy between	AM	WB	2	4600	56,100	2,500	0.54	A	57,200	2,500	0.54	A
	H St and State Route 259		EB	2	4600		2,000	0.43	A		2,100	0.46	A
		PM	WB	2	4600		2,300	0.50	A		2,300	0.50	A
			EB	2	4600		2,800	0.61	B		2,800	0.61	B
29	State Route 30 Fwy between	AM	WB	3	6900	115,300	4,800	0.70	B	116,400	4,800	0.70	B
	State Route 259 and		EB	3	6900		4,000	0.58	A		4,100	0.59	A
	Waterman Ave	PM	WB	3	6900		4,400	0.64	B		4,400	0.64	B
			EB	3	6900		5,400	0.78	C		5,400	0.78	C

[N/A] Caltrans traffic volume data not available due to construction of State Route 210 Freeway.

Source: Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, Crain and Associates, January 2012.

As verified by field checks conducted in November 2011, the SR-210/SR-30 freeway gap closure project and the Glen Helen Parkway extension have been completed and were therefore determined to be appropriate for inclusion in the "Sunnyvale" Analysis.[151] As described in more detail below, these recent roadway improvements would assist in reducing project-related traffic impacts to less than significant levels.

In addition to the recently completed roadway improvements in the Project vicinity, numerous improvements were proposed in the Traffic Study and the DEIR to reduce project-related traffic intersection impacts (including cumulative intersection impacts) to less than significant levels. As a result of the findings of the "Sunnyvale" Analysis, that mitigation measure, identified in the DEIR as Mitigation Measure 6-4, has been renumbered to include Mitigation Measure 6-4(a) (added below in underline) addressing project-specific traffic impacts under the "Existing (2007) Conditions plus Project" analysis, and Mitigation Measure 6-4(b) addressing cumulative traffic impacts under the "Future (203) Conditions with Project" analysis from the EIR.

2.2.4.1 Operational Impacts

- **Mitigation Measure 6-4.**

  - ◊ **6-4(a) Project-Specific Intersection Mitigation**. Should the level of project development generate trip levels exceeding those indicated at the following intersections (on an intersection by intersection basis), the Applicant shall cause to be completed the following improvements prior to the City's issuance of any certificates of occupancy for the level of development that causes the exceedance. This obligation does not apply to those intersections listed below at which (i) certain improvements have already been constructed and the "Sunnyvale" Analysis determined that such improvements would reduce project impacts to less-than-significant or (ii) the "Sunnyvale" Analysis determined project impacts would be less-than-significant due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.

    - ♦ **I-215 Freeway Southbound On/Off Ramps & University Parkway (Study Intersection No. 7).** Improve University Parkway to provide an exclusive right-turn lane in the Northbound direction and one left-turn lane, one left/through-shared lane, and one through lane in the Southbound direction. In order to accommodate the left-through-shared lane, modify the existing traffic signal to allow split phases for the Northbound and Southbound approaches. (Minimum trip levels: P.M. Peak Hour = 9,840.)

    - ♦ **I-15 Southbound On/Off Ramps & Glen Helen Parkway (Study Intersection No. 8).** Install traffic signal. (Minimum trip levels: A.M. Peak Hour = 794; P.M. Peak Hour = 427, whichever is triggered first). This improvement need not be completed should the I-15/I-215 interchange improvements project described in the Traffic Study be constructed prior to project development exceeding the above minimum trip levels.

[151] See Appendix V-C, Crain & Associates, *Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project,* January 2012, at p. 10 and fns. 1 & 2.

- **I-15 Northbound On/Off Ramps & Glen Helen Parkway (Study Intersection No. 9).** *(The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.)*

- **Lytle Creek Road & Sierra Avenue (Study Intersection No. 11).** Restripe Lytle Creek Road and Sierra Avenue to accommodate one left-turn lane and two through lanes in the northwest-bound direction and one through lane and one through/right-shared lane in the southeast-bound direction. Install a traffic signal at this location. *(With the exception of the installation of the traffic signal, this improvement has already been constructed, and the "Sunnyvale" Analysis determined that additional mitigation is not required.*)

- **I-15 Freeway Southbound On/Off Ramps & Sierra Avenue (Study Intersection No. 12).** Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the northwest-bound direction and two through lanes and one free right-turn lane in the southeast-bound direction. Widen the Southbound off-ramp to accommodate one left-turn lane, one left/right-shared lane, and one right-turn lane. Install a traffic signal at this location. (Minimum trip levels: A.M. Peak Hour = 272; P.M. Peak Hour = 281, whichever is triggered first.)

- **I-15 Freeway Northbound On/Off Ramps & Sierra Avenue (Study Intersection No. 13).** Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the southeast-bound direction and two through lanes and one right-turn lane in the northwest-bound direction. Reconstruct the Northbound off-ramp to accommodate one left-turn lane, one left/through-shared lane, and one free right-turn lane. Install a traffic signal at this location. (Minimum trip levels: A.M. Peak Hour = 240; P.M. Peak Hour = 222, whichever is triggered first.)

- **I-15 Freeway Southbound On/Off Ramps & Summit Avenue (Study Intersection No. 16).** Restripe Summit Avenue to accommodate one additional left-turn lane in the Eastbound direction. (*The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.*)

- **I-15 Freeway Northbound On/Off Ramps & Summit Avenue (Study Intersection No. 17).** Restripe the Northbound off-ramp to provide dual left-turn lanes and one right-turn lane. (*The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.*)

- **Riverside Avenue & Sierra Avenue (Study Intersection No. 18).** Widen and restripe Sierra Avenue to provide dual left-turn lanes and two through lanes in the Southbound direction. Improve the intersection to allow a free right-turn from Riverside Avenue onto Sierra Avenue. Install a traffic

signal at this intersection. (Minimum trip levels: A.M. Peak Hour = 258; P.M. Peak Hour = 247, whichever is triggered first).

- **Riverside Avenue & Linden Avenue (Study Intersection No. 22).** Widen and restripe to provide one left-turn lane, one through lane, and one through/right-shared lane in the northwest-bound direction. (Minimum trip levels: A.M. Peak Hour = 250; P.M. Peak Hour = 210, whichever is triggered first.)

- **Bohnert Avenue & Locust Avenue (Study Intersection No. 31).** *(The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.)*

- **Casmalia Street & Alder Avenue (Study Intersection No. 34).** *(The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.)*

- **SR-210 Freeway Westbound On/Off Ramps & Alder Avenue (Study Intersection No. 39).** *(The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.)*

- **Easton Street & Ayala Drive (Study Intersection No. 55).** Flare and restripe Easton Street in the Eastbound direction to accommodate an exclusive right-turn lane. Modify the traffic signal to include a right-turn overlap phase with the left-turn phase in the Northbound direction. *(This improvement has already been substantially constructed, and the "Sunnyvale" Analysis determined that additional mitigation is not required.*)

- **Easton Street & Riverside Avenue (Study Intersection No. 56).** *(The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.)*

- **Baseline Road & Alder Avenue.** Flare and restripe Alder Avenue to provide one left-turn lane, one through lane, and one through/right shared lane in the Southbound direction. (*The "Sunnyvale" Analysis determined that the Project would not result in significant impacts at this intersection, due to the completion of the SR-210/SR-30 gap closure project and Glen Helen Parkway extension project.*)

◊ **6-4(b) Fair-Share Contribution.** The Applicant shall equitably contribute to the implementation of identified improvements to the following project area and CMP intersections by paying a "fair share" of the cost of those improvements that is proportional to the Project's contribution of traffic volumes at such intersections

under cumulative conditions, as determined by the City and County, unless those improvements have already been implemented. These measures are included as part of those transportation improvements being funded by the City's transportation development impact fees. The project will be required to pay into this fund, less any in-lieu credit for measures which the Applicant implements. In addition, should any of the intersections listed below not be part of a mitigation plan involving the improvement of such intersections that has been approved by the relevant agency, the Applicant would be required to contribute 100 percent of the cost of the improvement.

- **I-215 Freeway Northbound On/Off Ramps/Arrowhead Boulevard & Devore Road (Study Intersection No. 1).** Install traffic signal.

- **Cajon Blvd & Glen Helen Parkway (Study Intersection No. 3).** Install traffic signal.

- **I-215 Freeway Northbound On/Off Ramps & Palm Avenue (Study Intersection No. 4).** Install traffic signal.

- **I-215 Freeway Southbound On/Off Ramps & Palm Avenue (Study Intersection No. 5).** Install traffic signal.

- **Lytle Creek Road & Glen Helen Parkway (Study Intersection No. 10).** Restripe Lytle Creek Road to accommodate one left-turn lane and two through lanes in the southeast-bound direction and two through lanes and one right-turn lane in the northwest-bound direction. Improve and restripe the Glen Helen Parkway approach at Lytle Creek Road to provide dual left-turn lanes and one right-turn lane. Install a traffic signal at this location.

- **SR-210 Freeway Westbound On/Off Ramps & Alder Avenue (Study Intersection No. 39).** Restripe the Westbound approach to provide one left-turn lane and one left/through/right-shared lane.

- **SR-210 Freeway Westbound On/Off Ramps & Riverside Avenue (Study Intersection No. 43).** Flare and restripe Riverside Avenue to provide an exclusive right-turn lane in the Southbound direction. In addition, improve the SR-210 off-ramp to provide one left-turn lane, left/through/ right shared lane, and one right-turn lane.

- **SR-210 Freeway Eastbound On/Off Ramps & Riverside Avenue (Study Intersection No. 44).** Improve Riverside Avenue to provide two through lanes and two right-turn lanes in the Northbound direction and dual left-turn lanes and two through lanes in the Southbound direction.

- **SR-210 Freeway Westbound On/Off Ramps & State Street (Study Intersection No. 47).** Improve State Street to provide dual left-turn lanes and two through lanes in the Northbound direction and one through lane, one through/right shared lane, and one right-turn lane in the Southbound direction.

- **SR-210 Freeway Eastbound On/Off Ramps & State Street (Study Intersection No. 48).** Flare and restripe the Eastbound off-ramp to provide one left-turn lane, one left/through-share lane, and two right-turn lanes. Modify the traffic signal to accommodate a right-turn overlap phase for the off-ramp Eastbound approach and the Southbound approach on State Street.

- **Highland Avenue & State Street (Study Intersection No. 49).** Flare and restripe Highland Avenue to provide dual left-turn lanes, one through lane, and one through/right-shared lane in the Westbound direction and one left-turn lane, one through lane, one through/right-shared lane, and one right-turn lane in the Eastbound direction.

- **Rialto Avenue & Cedar Avenue (Study Intersection No. 72).** Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the Southbound direction.

- **Merrill Avenue & Cedar Avenue (Study Intersection No. 74).** Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the Northbound direction and Merrill Avenue to provide an exclusive right-turn lane in the Eastbound direction. Additional right-of-way may be required to implement this measure.

2.2.5 Level of Significance after Incorporation of 2011 Roadway Improvements and Mitigation Measures

As described in detail in the "Sunnyvale" Analysis provided in Appendix V-C, in order to reflect the changes in roadway conditions between 2007 and 2011, including the SR-210/SR-30 gap closure project and the Glen Helen Parkway extension, the traffic model used for the analysis of the "Existing (2007) Conditions plus Project" scenario was modified to include the recently completed roadway improvements along the study area, producing the "Existing (2007) Conditions plus Project with Current (2011) Routes" scenario. The resulting analysis indicated that with implementation of the SR-210/SR-30 gap closure project, traffic volumes using the surface streets along this freeway corridor have been significantly reduced. As described in detail in Appendix V-C and shown in Table 2.2-3 on page 2-125, 10 of the 16 significantly impacted study intersections under existing (2007) conditions would be fully mitigated by already completed freeway and road system improvements.

Of those 10 intersections, 8 would be fully mitigated by the SR-210/S-30 gap closure project and extension of the Glen Helen Parkway. Five of those 8 intersections were not previously identified in the Traffic Study as being significantly impacted by project traffic under Future (2030) conditions.[152] Those 8 intersections are:

[152] Intersections 16, 17, and 59 were also identified in the Traffic Study and EIR as being significantly impacted by project traffic under Future (2030) conditions.

Table 2.2-3
Level of Service Summary
Existing (2007) Plus Project Conditions With Traffic Study Period (2007)
And Current (2011) Freeway/Roadway Improvements

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS		Existing (2007) With Current (2011) Routes With Project V/C	Delay	LOS	
7	I-215 SB On/Off Ramps &	AM	0.810	20.3	C	0.828	21.3	C		1.118	82.9	F	*
	University Parkway	PM	1.162	72.3	E	1.180	76.7	E	*	1.018	56.2	E	*
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A	[1]	16.7	C		[1]	336.6	F	*
	Glen Helen Parkway	PM	[1]	10.6	B	[1]	35.4	E	*	[1]	680.2	F	*
9	I-15 NB On/Off Ramps &	AM	[1]	8.7	A	[1]	10.0	A		[1]	10.4	B	
	Glen Helen Parkway	PM	[1]	37.1	E	[1]	207.2	F	*	[1]	14.8	B	
11	Lytle Creek Road &	AM	[1]	9.0	A	[1]	13.1	B		0.384	10.2	B	
	Sierra Avenue	PM	[1]	11.9	B	[1]	236.5	F	*	0.707	18.5	C	
12	I-15 SB On/Off Ramps &	AM	[1]	43.8	E	[1]	275.2	F	*	1.731	155.3	F	*
	Sierra Avenue	PM	[1]	15.5	C	[1]	252.9	F	*	1.916	275.7	F	*
13	I-15 NB On/Off Ramps &	AM	[1]	30.3	D	[1]	293.2	F	*	1.539	208.7	F	*
	Sierra Avenue	PM	[1]	25.6	D	[1]	445.3	F	*	2.307	456.4	F	*
16	I-15 SB On/Off Ramps &	AM	1.288	114.6	F	1.304	118.1	F	*	0.062	18.0	B	
	Summit Avenue	PM	0.864	21.2	C	0.886	22.9	C		0.115	12.4	B	
17	I-15 NB On/Off Ramps &	AM	0.791	19.1	B	0.819	20.4	C		0.322	7.1	A	
	Summit Avenue	PM	1.240	99.4	F	1.279	110.6	F	*	0.185	14.2	B	
18	Riverside Avenue &	AM	[1]	40.7	E	[1]	399.2	F	*	1.101	59.0	F	*
	Sierra Avenue	PM	[1]	22.8	C	[1]	406.0	F	*	1.474	150.2	F	*
22	Riverside Avenue &	AM	[1]	35.3	E	1.069	58.6	E	*	1.168	76.1	E	*
	Linden Avenue	PM	[1]	15.3	C	1.127	91.7	F	*	1.636	253.1	F	*
31	Bohnert Avenue &	AM	[1]	75.2	F	[1]	210.6	F	*	[1]	15.0	B	
	Locust Avenue	PM	[1]	24.6	C	[1]	171.1	F	*	[1]	23.1	C	
34	Casmalia Street &	AM	0.836	33.3	C	0.931	49.3	D		0.368	19.2	B	
	Alder Avenue	PM	1.187	124.2	F	1.331	173.2	F	*	0.570	35.3	D	
39	SR-210 Freeway WB On/Off Ramps &	AM	1.029	42.7	D	1.123	67.3	E	*	0.437	16.3	B	
	Alder Avenue	PM	0.807	10.8	B	0.868	12.8	B		0.365	10.9	B	
55	Easton Street &	AM	0.753	19.5	B	0.773	19.9	B		0.334	16.4	B	
	Ayala Drive	PM	1.120	65.5	E	1.164	79.1	E	*	0.430	21.1	C	
56	Easton Street &	AM	0.956	46.9	D	1.159	88.9	F	*	0.525	13.7	B	
	Riverside Avenue	PM	1.202	101.5	F	1.616	195.4	F	*	0.662	20.6	C	
59	Baseline Road &	AM	0.684	23.6	C	0.718	25.5	C		0.471	18.7	B	
	Alder Avenue	PM	0.919	46.8	D	0.969	56.2	E	*	0.633	29.4	C	

* Denotes a significant project traffic impact, prior to mitigation.
[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.

Source: Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, Crain and Associates, January 2012.

9. I-15 Northbound On/Off Ramps & Glen Helen Parkway

16. I-15 Southbound On/Off Ramps & Summit Avenue

17. I-15 Northbound On/Off Ramps & Summit Avenue

31. Bohnert Avenue & Locust Avenue

34. Casmalia Street & Alder Avenue

39. SR-210 Westbound On/Off Ramps & Alder Avenue

56. Easton Street & Riverside Avenue

59. Baseline Road & Alder Avenue

The additional 2 intersections were also identified in the Traffic Study as being significantly impacted by project traffic under Future (2030) conditions. Those intersections are:

11. Lytle Creek Road & Sierra Avenue

55. Easton Street & Ayala Drive

Intersections 11 and 55 would be fully mitigated by the gap closure project and extension of Glen Helen Parkway, as well as by improvements that have been made at those intersections between 2007 and 2011. The improvements made at intersections 11 and 55 are similar to the improvements described in the Traffic Study as required to mitigate impacts at those intersections under Future (2030) conditions. The improvements to intersections 11 and 55 which have been done under 2011 conditions:

11. Lytle Creek Road & Sierra Avenue:

    ◊ Improvements suggested in Traffic Study: Restripe Lytle Creek Road and Sierra Avenue to accommodate one left-turn lane and two through lanes in the northwest-bound direction, and one through lane and one through/right-shared lane in the southeast-bound direction. In addition, install a traffic signal at this location.

    ◊ Improvements actually constructed pursuant to November 2011 field check: Lytle Creek Road and Sierra Avenue have been restriped to accommodate one left-turn lane and two through lanes in the northwest-bound direction, and one through lane and one through/right-shared lane in the southeast-bound direction. A traffic signal has not been installed.

55. Easton Street & Ayala Drive

    ◊ Improvements suggested in Traffic Study: Flare and restripe Easton Street in the eastbound direction to accommodate an exclusive right-turn lane. Modify the traffic signal to include a right-turn overlap phase with the left-turn phase in the northbound direction.

    ◊ Improvements actually constructed pursuant to November 2011 field check: Easton Street's eastbound approach to Ayala Drive now provides one left-turn,

one though and one through/right shared lane. The eastbound approach does not yet accommodate an exclusive right-turn lane, and the traffic signal has not yet been modified to include the right-turn overlap phase with the left-turn phase in the northbound direction.

In addition to the recently completed roadway improvements described above, other improvements were recommended as mitigation measures in the Traffic Study and the EIR. Of the 6 remaining intersections shown in Table 2.2-3 as being significantly impacted under "Existing (2007) Plus Project with Current (2011) Routes" conditions, 5 of those intersections were also shown in the Traffic Study as being significantly impacted by project traffic under Future (2030) conditions. Those intersections are:

7. I-215 Southbound On/Off Ramps & University Parkway

12. I-15 Southbound On/Off Ramps & Sierra Avenue

13. I-15 Northbound On/Off Ramps & Sierra Avenue

18. Riverside Avenue & Sierra Avenue

22. Riverside Avenue & Linden Avenue

To assess whether project-specific impacts could be reduced to less-than-significant levels at those five intersections, the improvements proposed in the Traffic Study to fully mitigate impacts at those five intersections to address Future (2030) conditions[153] were applied to "Existing (2007) Plus Project with Current (2011) Routes" conditions. As described in detail in Appendix V-C and shown in Table 2.2-4 on page 2-128, when accounting for the recently constructed roadway improvements as of 2011, as well as the mitigation measures proposed for those five intersections, 15 of the 16 significantly impacted study intersections under the "Existing (2007) Conditions plus Project" scenario would be reduced to less than significant levels.

The remaining impact under the "Existing (2007) Conditions plus Project" scenario would occur at Intersection No. 8: I-15 Southbound On/Off Ramps & Glen Helen Parkway. However, upon completion of the scheduled freeway improvement at the interchange of the I-15 and I-215 Freeways, this impact would be reduced to a less than significant level. Construction of this improvement is slated to begin in 2013 and last approximately 3 years.[154] As discussed in detail in the "Sunnyvale" Analysis provided in Appendix V-C, if project implementation were to occur prior to this freeway improvement being constructed, the 50-trip threshold at the I-15 Southbound On/Off Ramps & Glen Helen Parkway intersection would be exceeded when the Project is developed to the degree that is generates 794 or more A.M. peak-hour trips or 427 or more P.M. peak-hour trips. Therefore, should the Project be constructed to the degree that project traffic would generate 794 or more of the A.M. peak-hour trips estimated at this intersection or 427 or more of the P.M. peak-hour trips estimated at this intersection (prior to

[153] The improvements proposed for those 5 intersections are provided in Appendix C to the "Sunnyvale" Analysis, which is included as Appendix V-C to this RPDEIR.

[154] For more detailed information regarding this improvement, see Appendix V-C to this RPDEIR, at pages 17–18.

Table 2.2-4
Level of Service Summary
Existing (2007) Plus Project With Current (2011) Freeway/Roadway Improvement and Future (2030) Mitigation Traffic Conditions

No.	Intersection	Peak Hour	Existing (2007) Without Project V/C	Delay	LOS	Existing (2007) With Project V/C	Delay	LOS		Existing (2007) With Current (2011) Routes With Project V/C	Delay	LOS		Existing (2007) With Proj. With Current (2011) Routes and Intersection Specific Mit V/C	Delay	LOS
7	I-215 SB On/Off Ramps &	AM	0.810	20.3	C	0.828	21.3	C		1.118	82.9	F	*	0.612	11.2	B
	University Parkway	PM	1.162	72.3	E	1.180	76.7	E	*	1.018	56.2	E	*	0.619	23.7	C
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A	[1]	16.7	C		[1]	336.6	F	*			
	Glen Helen Parkway	PM	[1]	10.6	B	[1]	35.4	E	*	[1]	680.2	F	*			
9	I-15 NB On/Off Ramps &	AM	[1]	8.7	A	[1]	10.0	A		[1]	10.4	B				
	Glen Helen Parkway	PM	[1]	37.1	E	[1]	207.2	F	*	[1]	14.8	B				
11	Lytle Creek Road &	AM	[1]	9.0	A	[1]	13.1	B		0.384	10.2	B				
	Sierra Avenue	PM	[1]	11.9	B	[1]	236.5	F	*	0.707	18.5	C				
12	I-15 SB On/Off Ramps &	AM	[1]	43.8	E	[1]	275.2	F	*	1.731	155.3	F	*	0.476	20.1	C
	Sierra Avenue	PM	[1]	15.5	C	[1]	252.9	F	*	1.916	275.7	F	*	0.620	23.4	C
13	I-15 NB On/Off Ramps &	AM	[1]	30.3	D	[1]	293.2	F	*	1.539	208.7	F	*	0.624	18.7	B
	Sierra Avenue	PM	[1]	25.6	D	[1]	445.3	F	*	2.307	456.4	F	*	0.996	40.7	D
16	I-15 SB On/Off Ramps &	AM	1.288	114.6	F	1.304	118.1	F	*	0.062	18.0	B				
	Summit Avenue	PM	0.864	21.2	C	0.886	22.9	C		0.115	12.4	B				
17	I-15 NB On/Off Ramps &	AM	0.791	19.1	B	0.819	20.4	C		0.322	7.1	A				
	Summit Avenue	PM	1.240	99.4	F	1.279	110.6	F	*	0.185	14.2	B				
18	Riverside Avenue &	AM	[1]	40.7	E	[1]	399.2	F	*	1.101	59.0	F	*	0.676	13.1	B
	Sierra Avenue	PM	[1]	22.8	C	[1]	406.0	F	*	1.474	150.2	F	*	0.846	17.0	B
22	Riverside Avenue &	AM	[1]	35.3	E	1.069	58.6	E	*	1.168	76.1	E	*	0.531	13.2	B
	Linden Avenue	PM	[1]	15.3	C	1.127	91.7	F	*	1.636	253.1	F	*	0.834	27.4	C
31	Bohnert Avenue &	AM	[1]	75.2	F	[1]	210.6	F	*	[1]	15.0	B				
	Locust Avenue	PM	[1]	24.6	C	[1]	171.1	F	*	[1]	23.1	C				
34	Casmalia Street &	AM	0.836	33.3	C	0.931	49.3	D		0.368	19.2	B				
	Alder Avenue	PM	1.187	124.2	F	1.331	173.2	F	*	0.570	35.3	D				
39	SR-210 Freeway WB On/Off	AM	1.029	42.7	D	1.123	67.3	E	*	0.437	16.3	B				
	Ramps & Alder Avenue	PM	0.807	10.8	B	0.868	12.8	B		0.365	10.9	B				
55	Easton Street &	AM	0.753	19.5	B	0.773	19.9	B		0.334	16.4	B				
	Ayala Drive	PM	1.120	65.5	E	1.164	79.1	E	*	0.430	21.1	C				
56	Easton Street &	AM	0.956	46.9	D	1.159	88.9	F	*	0.525	13.7	B				
	Riverside Avenue	PM	1.202	101.5	F	1.616	195.4	F	*	0.662	20.6	C				
59	Baseline Road &	AM	0.684	23.6	C	0.718	25.5	C		0.471	18.7	B				
	Alder Avenue	PM	0.919	46.8	D	0.969	56.2	E	*	0.633	29.4	C				

* Denotes a significant project traffic impact, prior to mitigation.
[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.

Source: Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, Crain and Associates, January 2012

completion of the aforementioned highway improvement at the interchange of the I-15 and I-215 Freeways), that portion of Mitigation Measure 6-4(a) addressing Study Intersection No. 8 would be required to avoid a significant impact. As shown in Table 2.2-5 below, with implementation of this mitigation measure, the Project's traffic impact at this intersection would be reduced to an acceptable level of service (LOS D or better) and impacts would be less than significant.

Based on the above, when accounting for existing roadway improvements and proposed mitigation measures, all project-related traffic impacts under the "Existing (2007) Conditions plus Project" scenario evaluated in accordance with the Sunnyvale case would be reduced to less than significant levels.

Table 2.2-5
Level of Service Summary
Existing (2007) Plus Project With Current (2011) Freeway/Roadway Improvement and New Mitigation Traffic Conditions

			Existing (2007) Without Project			Existing (2007) With Project				Existing (2007) With Project With Current (2011) Freeway/Roadway Imp.				Existing (2007) With Project With New Mitigation		
No.	Intersection	Peak Hour	V/C	Delay	LOS	V/C	Delay	LOS		V/C	Delay	LOS		V/C	Delay	LOS
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A	[1]	16.7	C		[1]	336.6	F	*	0.386	7.0	A
	Glen Helen Parkway	PM	[1]	10.6	B	[1]	35.4	E	*	[1]	680.2	F	*	0.462	11.5	B

* Denotes a significant project traffic impact, prior to mitigation.
[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.

Source: Addendum to the Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project, Crain and Associates, January 2012.

2.3 Revised Seismic Mitigation Measures

Court Ruling

The EIR's seismic mitigation measures (Mitigation Measures 3-1 to 3-3) constitute improperly deferred mitigation. The City failed to proceed as required by law.

Response

The following revised mitigation measures are proposed to address the Court's ruling that mitigation was improperly deferred and to ensure that seismic impacts will be mitigated through known feasible and effective methods.

- **Mitigation Measure 3-1**. All development activities conducted on the Project site shall be consistent with the following:

  (1) The recommendations contained in the following studies: "EIR Level Geotechnical Review, Lytle Creek Ranch Land Use Plan, City of Rialto, San Bernardino County, California" (GeoSoils, Inc., May 22, 2008) and "Updated Geological and Geotechnical EIR Level Review of Documents Pertaining to the Lytle Creek Ranch Land Use Plan, City of Rialto, County of San Bernardino, California" (Pacific Soils Engineering, Inc., September 3, 2008), including but not limited to measures such as those listed below, provided the recommendations meet the conditions specified in Subsection (3) of this Mitigation Measure.

    – Use of engineered foundation design and/or ground-improvement techniques in areas subject to liquefaction-induced settlement;

    – Use of subdrains in canyon areas or within fill lots underlain by bedrock;

    – Use of buttress or stabilization fills with appropriate factors-of-safety (including placing compacted non-structural fill against existing slopes subject to erosion/failure);

    – Engineering design incorporating post-tension/structural slabs, mat, or deep foundations; or

  (2) Alternative recommendations based on the findings of a site-specific, design-level geologic and geotechnical investigation(s) and approved by the City Engineer, including but not limited to the use of proven methods generally accepted by registered engineers to reduce the risk of seismic hazards to a less than significant level, provided such recommendations meet the conditions specified in Subsection (3) of this Mitigation Measure.

  (3) All recommendations shall comply with or exceed applicable provisions and standards set forth in or established by:

    (a) California Geological Survey's "Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication No. 117" (Special Publication 117);

(b) The version of the Uniform Building Code (UBC), as adopted and amended by the City of Rialto, in effect at the time of approval of the investigation(s) by the City Engineer;

(c) Relevant State, County and City laws, ordinances and Code requirements; and

(d) Current standards of practice designed to minimize potential geologic and geotechnical impacts.

- **Mitigation Measure 3-2**. Prior to the approval of a tentative "B" level subdivision map for residential or commercial development proposed as part of the Project (excluding any "A" level subdivision map for financing purposes only), the Project Applicant shall:

(1) Submit to the City of Rialto Building & Safety Division a site-specific, design-level geotechnical and geologic investigation(s) prepared for the Project by a registered geotechnical engineer. The investigation(s) shall comply with all applicable State, County and City Code requirements and:

(a) Document the feasibility of each proposed structure and its associated use based on an evaluation of the relevant geotechnical, geologic, and seismic conditions present at each structure's location using accepted methodologies. Included in this documentation shall be verification of soil conditions (including identification of organic and oversized materials) and a specific evaluation of collapsible and expansive soils;

(b) Determine structural design requirements prescribed by the version of the UBC, as adopted and amended by the City of Rialto, in effect at the time of approval of the investigation(s) by the City Engineer, to ensure the structural integrity of all proposed development; and

(c) In addition to the recommendations included in Subsections (1) and (2) of Mitigation Measure 3-1, include site-specific conditions, recommendations and/or measures designed to minimize risks associated with surface rupture, ground shaking, soil stability (including collapsible and expansive soils), liquefaction and other seismic hazards, provided such conditions, recommendations and/or measures meet the conditions set forth in subsection (3) of Mitigation Measure 3-1. Such measures shall specify liquefaction measures such as deep foundations extending below the liquefiable layers, soil cover sufficiently thick over liquefaction soil to bridge liquefaction zones, dynamic compaction, compaction grouting, and jet grouting. In accordance with Special Publication No. 117, other measures may include edge containment structures (e.g., berms, retaining structures, and compacted soil zones), removal or treatment of liquefiable soils, reinforced shallow foundations, and other structural design techniques that can withstand predicted displacements.

(2) Unless otherwise modified, all conditions, recommendations and/or mitigation measures contained within the geotechnical and geologic investigation(s), including the imposition of specified setback requirements for proposed development activities within Alquist-Priolo Earthquake Fault Zones, shall become conditions of approval for the requested development.

(3) The Project structural engineer shall: review the geotechnical and geologic investigation(s); provide any additional conditions, recommendations and/or mitigation measures necessary to meet UBC requirements; incorporate all conditions, recommendations and/or mitigation measures from the investigation(s) in the structural design plans; and ensure that all structural plans for the Project meet the requirements of the version of the UBC, as adopted and amended by the City of Rialto, in effect at the time of approval of the investigation(s) by the City Engineer.

(4) The City Engineer shall: review the geotechnical and geologic investigation(s); approve the final report; and require compliance with all conditions, recommendations and/or mitigation measures set forth in the investigation(s) in the plans submitted for grading, foundation, structural, infrastructure and all other relevant construction permits.

(5) The City Building & Safety Division shall: review all Project plans for grading, foundation, structural, infrastructure and all other relevant construction permits to ensure compliance with the applicable geotechnical and geologic investigation(s) and other applicable Code requirements.

- **Mitigation Measure 3-3**. In recognition of the potential lateral forces exerted by predicted seismic activities, habitable structures that may be located on the Project site and which are located within the defined Alquist-Priolo Fault-Rupture Hazard Zones shall not be over two stories in height. Habitable structures of greater height within defined Alquist-Priolo Fault-Rupture Hazard Zones may only be permitted following the submittal of a subsequent site-specific, design-level geologic and geotechnical investigation(s) and its approval by the City Engineer and, at a minimum, the imposition of both the recommendations contained therein and such additional conditions as may be imposed by the City Engineer, including but not limited to the use of proven methods generally accepted by registered engineers to reduce the risk of seismic hazards to a less than significant level, provided such recommendations meet the conditions specified in Mitigation Measure 3-1, Subsection (3).

Implementation of these mitigation measures, as well as Mitigation Measure 3-4 identified in the DEIR, will reduce the Project's potential geologic, geotechnical, and seismic impacts to below a level of significance.

2.4 Revised Fire Protection Mitigation Measures

Court Ruling

The EIR's fire protection mitigation measures (Mitigation Measures 9-4 and 9-5) constitute improperly deferred mitigation. The City failed to proceed as required by law.

Response

The following revised mitigation measures are proposed to address the Court's ruling that mitigation was improperly deferred and to ensure that fire impacts will be properly mitigated.

- **Mitigation Measure 9-4**. Fire Protection. Prior to the issuance of building permits for any habitable use in Neighborhoods I and IV, the Applicant shall demonstrate to the satisfaction of the Rialto Fire Department and/or to the agency with fire protection and emergency jurisdiction over that area that National Fire Protection Association 1710 response standards can and will be satisfied prior to the issuance of any occupancy permits within those areas.

- **Mitigation Measure 9-5**. Fire Protection. At the time of building permit issuance, the Applicant shall pay to the City of Rialto Development Impact Fees for fire protection, based on the number of residential units or square footage of non-residential development included in each permitted building. Such fees shall be paid in accordance with the fee schedules set forth in the proposed Pre-Annexation and Development Agreement (Development Agreement) between the City and the Applicant. If such a Development Agreement is not approved, such fees shall be paid pursuant to the City's Fire Protection Services Development Fee program under Chapter 3.60 of the City of Rialto Municipal Code.

Implementation of these mitigation measures will reduce the Project's potential fire protection impacts to below a level of significance.

2.5 Revised Alternatives Analysis for Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2

2.5.1 Introduction

The Court Ruling held that the City failed to comply with CEQA because the City's findings rejecting Habitat Avoidance Alternative 1 (Avoidance of San Bernardino Kangaroo Rat (SBKR)/Least Bell's Vireo (LBV)-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of Riversidian Alluvial Fan Sage Scrub Areas (RAFSS)) were not supported by substantial evidence. More specifically, the Court Ruling found that (1) the EIR's discussion of Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2 did not contain sufficient evidence to support its conclusions regarding those alternatives' air quality, noise, and growth inducement impacts; (2) the findings of economic infeasibility for Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2 were not supported by evidence in the record; and (3) various findings regarding Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2 not meeting City and project objectives were not supported by substantial evidence. The Court Ruling ordered the City "to revise the EIR with respect to . . . alternatives HAA1 [Habitat Avoidance Alternative 1] and HAA2 [Habitat Avoidance Alternative 2]." As such, analysis is provided below in response to the Court Ruling in order to support the EIR's discussions and impact conclusions and the City's associated findings. The analysis provided in this section supersedes and replaces the analysis of Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2 in Section 7.5.3 of the DEIR.

2.5.2 Summary of Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2

The EIR identified various potentially significant impacts that the Project could cause to biological resources in the Project study area. Although the EIR determined that all biological resource impacts could be mitigated to a less than significant level, in light of those potential project-related impacts, several "habitat avoidance" alternatives to the Project were defined in the EIR.[155] Each alternative was defined so as to minimize the direct disturbance of sensitive habitats and the corresponding sensitive species that occupy those habitats. The first habitat avoidance scenario (Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat)) would avoid development in areas occupied by SBKR and LBV. The second habitat avoidance scenario (Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas)) would locate all development behind the Federal Emergency Management Agency (FEMA) 100-year floodplain line and minimize development in areas identified as RAFSS. Under these Habitat Avoidance Alternatives, the type, mix, and density of land uses generally would remain the same as under the Project but would be adjusted (reduced) to reflect the smaller footprint of development in each alternative, as described further below.

[155] As also noted in Section 1.1 of this RPDEIR, the Court Ruling denied the petition for writ of mandate's claims that the EIR did not use the correct threshold of significance to evaluate potential biological resources impacts on the SBKR and that project-related impacts on the SBKR could not be mitigated to a less than significant level.

2.5.2.1 Habitat Avoidance Alternative 1

The objective of Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) is to avoid or substantially reduce significant project-related impacts affecting on-site biological resources prior to mitigation, specifically potential impacts upon listed wildlife species including, but not limited to, the San Bernardino kangaroo rat and the least Bell's vireo. Both the SBKR and LBV are federally-listed species under the Federal Endangered Species Act (FESA) and have been observed in the LCRSP study area.

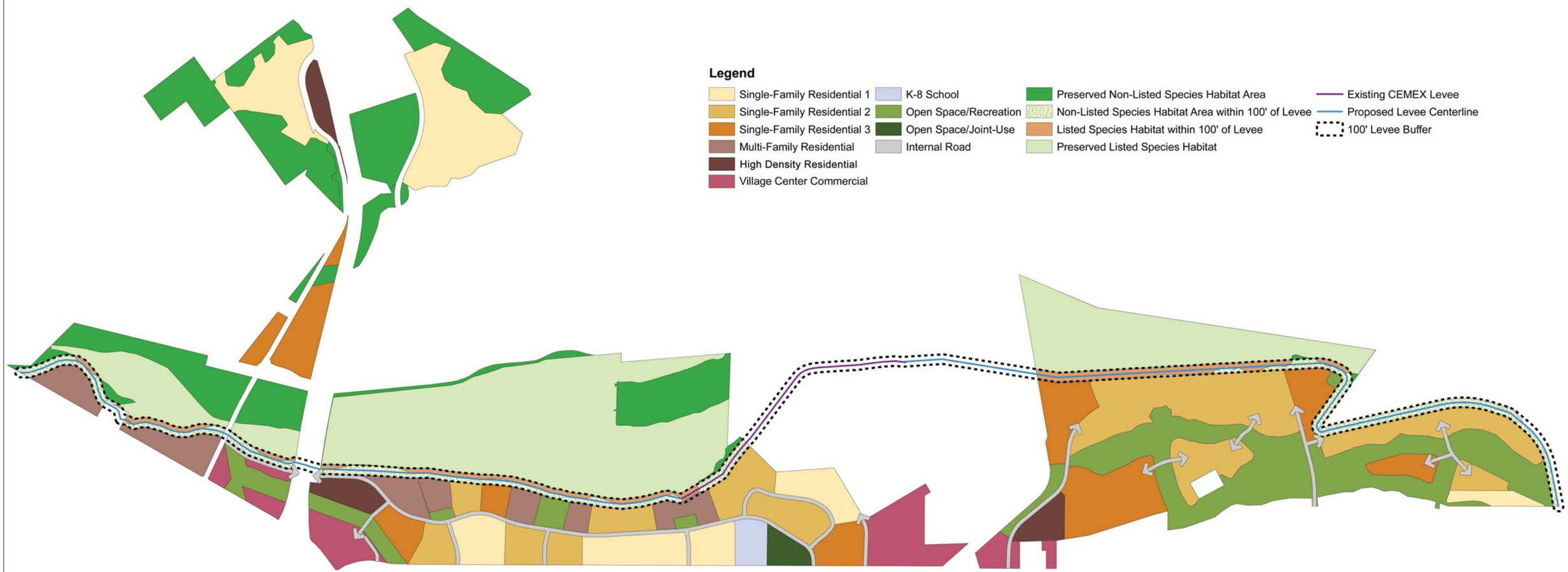
This alternative is depicted in Figure 2.5-1 (Conceptual Avoidance of SBKR/LBV-Occupied Habitat Alternative) on page 2-136, and the associated development assumptions are outlined in Table 2.5-1 (Avoidance of SBKR/LBV-Occupied Habitat Alternative—Land Use and Development Assumptions) on page 2-137. For those areas not avoided (i.e., those areas to be developed), this alternative assumes development consistent with the proposed LCRSP. Accordingly, a total of 7,484 dwelling units and 820,540 square feet of commercial, office, and light industrial uses would be developed on the Project site under this alternative. Each neighborhood is briefly described below.

In Neighborhood I, the main species of concern is the LBV which utilizes the riparian habitat area adjacent to the I-15 Freeway. It is assumed that the remainder of Neighborhood I would be developed in accordance with those land uses and at the corresponding densities as presented in the proposed LCRSP. Under this alternative, direct impacts to the riparian areas would be avoided.

In Neighborhood II, a portion of the proposed development area, specifically the area where the levee is proposed under the Project, currently provides habitat for listed species, including the SBKR. Despite this, the biological assessment concluded that the long-term viability of this area to serve as SBKR habitat is, at best, problematic (i.e., even if the area surrounding this habitat area were not developed, this area lacks long-term viability as suitable SBKR habitat); therefore, this alternative contemplates impacts to this small area of listed species habitat for the levee. There is a pocket of riparian habitat in the northwest area of Neighborhood II which is considered jurisdictional waters, but because the area does not provide nesting habitat for either the LBV or the southwestern willow flycatcher, under this alternative, development within this area would not be avoided since the focus of this alternative is the avoidance of areas which are occupied by listed species.

In Neighborhood III, the footprint of the levee would be moved further south as compared to the Project; however, a small area of currently occupied SBKR habitat would be impacted. Impacts to this area could not be avoided given the alignment of the levee. The biological assessment concluded that this area would not remain as suitable habitat for the SBKR in the long-term (even in the absence of development) because vegetation would be anticipated to reestablish itself as a dense, mature chaparral/shrub cover unsuitable for occupation by the species.

In Neighborhood IV, the alignment of the levee would be altered to minimize impacts to listed species, and the area proposed for development would be reduced. A small area of listed species habitat would still be affected by levee placement.



Source: KTGY Group, Inc., 2011.

matrix environmental

Figure 2.5-1
Conceptual Avoidance of SBKR/LBV-Occupied Habitat Alternative

Table 2.5-1
Land Use and Development Assumptions
Avoidance of SBKR/LBV-Occupied Habitat Alternative

Notation	Designation	Acreage	Density Assumptions	Dwelling Units	Square Footage
SFR-1	Single-Family Residential[1]	259.9	3.6 DU/acre[1]	936	—
SFR-2	Single-Family Residential[2]	245.9	6.3 DU/acre[1]	1,549	—
SFR-3	Single-Family Residential[3]	221.9	10.9 DU/acre[1]	2,419	—
MFR	Multi-Family Residential	73.0	17.2 DU/acre[1]	1,256	—
HDR	High-Density Residential	40.9	32.4 DU/acre	1,325[2]	—
VC	Village Center Commercial	96.1	—	—	820,540
ES/MS	Elementary/Middle School[3]	14.0			
OS/R	Open Space/Recreation[4]	301.4	—	—	—
OS/JU	Open Space/Joint Use	12.0	—	—	—
	Preserved Listed Species Habitat	596.6	—	—	—
	Preserved Non-Listed Species Habitat	345.4	—	—	—
	Listed Species Habitat (within 100 feet of Levee)	44.4	—	—	—
	Non-Listed Species Habitat (within 100 feet of Levee)	84.6	—	—	—
	Roads	111.2	—	—	—
Total		**2,447.3**	**—**	**7,484**	**820,540**

Notes:

1. Based on the same density and development assumptions presented in Table 2-1 of the DEIR (Lytle Creek Ranch Specific Plan—Conceptual Land-Use Plan Summary).
2. The DEIR identified these units as part of the Village Center Commercial (VC) district. Consistent with the Project, the City required that such units be removed from the VC district and put into a separate High-Density Residential (HDR) district, with planning areas that correspond to those planning areas identified as HDR for the Project, however this was not reflected in the DEIR and is being corrected here. As such, the density assumption for the HDR district in this alternative is similar but not identical to that of the Project.
3. The DEIR incorrectly indicated that this alternative would also contain a 10.0 acre elementary school, as well as 5.1 acres of open space/joint use. This table has been corrected accordingly.
4. The DEIR incorrectly indicated that this alternative would contain 5.0 acres designated as Open Space (OS). Those 5.0 acres should have been designated Open Space/Recreation (OS/R). The table has been corrected accordingly.

Source: KTGY Group, Inc., 2011.

This alternative further serves to promote the preservation of the largest concentration of Plummer's mariposa lily and Parry's spineflower. The largest concentrations of these two plant species are found in the preserved species habitat areas. Although neither of these plant species are State or federally-listed, both are identified by the California Native Plant Society (CNPS) as either sensitive species or species to be more closely monitored.

2.5.2.2 Habitat Avoidance Alternative 2

The objective of Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) is to avoid or substantially reduce significant project-related impacts affecting RAFSS areas located on the Project site. In order to achieve this, although the alternative involves the construction of a levee, it does not involve the extension of the levee to the existing Cemex USA levee. In

addition, the location of this alternative's proposed levee in Neighborhood IV would not affect the hydrological conditions needed to sustain RAFSS on the site.

This alternative is depicted in Figure 2.5-2 (Conceptual Avoidance of RAFSS Areas Alternative) on page 2-139, and the associated development assumptions are outlined in Table 2.5-2 (Avoidance of RAFSS Areas Alternative—Land Use and Development Assumptions) on page 2-140. For those areas not avoided (i.e., those areas to be developed), this alternative assumes development consistent with the proposed LCRSP. Accordingly, a total of 4,873 dwelling units and 602,827 square feet of commercial, office, and light industrial uses would be developed on the Project site under this alternative.

The major concentration of RAFSS on the Project site lies within the Lytle Creek Wash area. The areas designated as Preserved RAFSS Community include both RAFSS as well as RAFSS-dominated vegetation. Under this alternative, the areas proposed for development may contain some components of RAFSS vegetation but those areas are not considered RAFSS-dominated communities and, therefore, the developed areas would not be considered habitat.

Although not a RAFSS community, riparian habitat is also considered a sensitive habitat. This alternative also provides protection for riparian habitat in areas of Neighborhood I and a small area within Neighborhood II. Furthermore, this alternative would place all development behind the FEMA 100-year floodplain line.

2.5.3 Air Quality Impacts

Court Ruling

The EIR's discussion of Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) does not contain sufficient evidence to support the conclusions regarding significant air quality impacts. The Court finds an abuse of discretion.

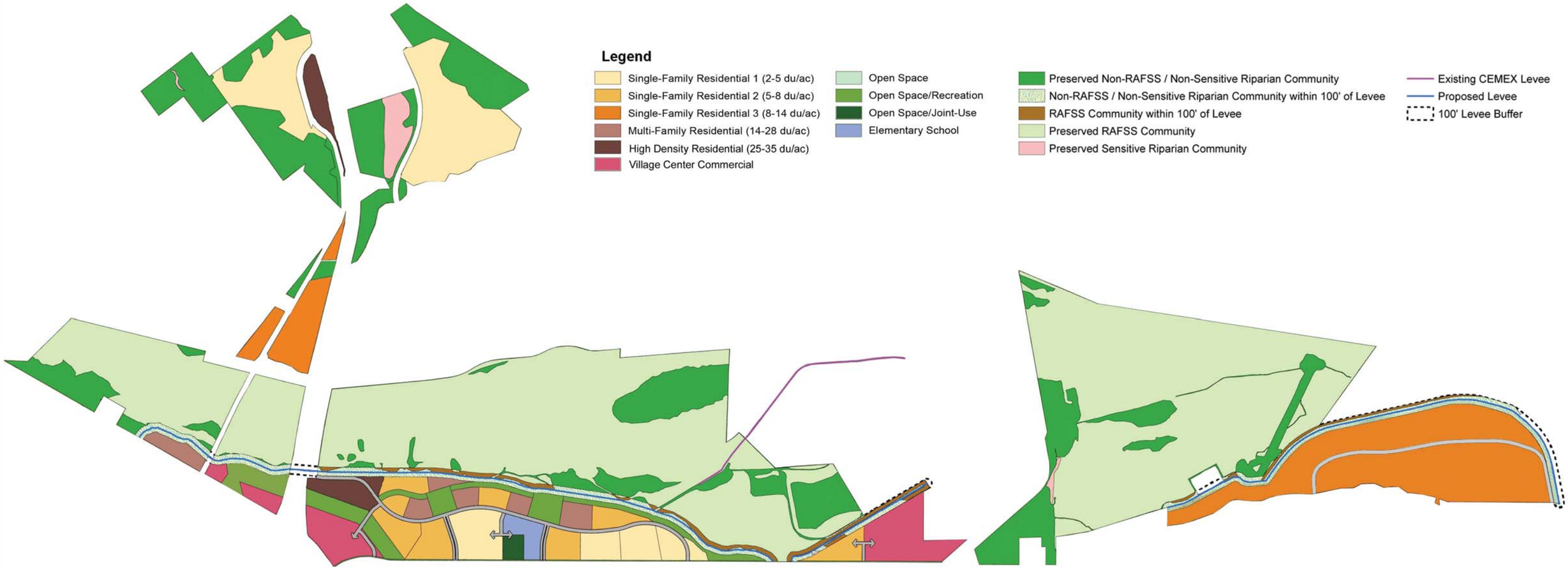
Response

The following is provided to support the EIR's conclusions regarding the significant impacts associated with Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) with respect to air quality.

2.5.3.1 Habitat Avoidance Alternative 1

Construction

Under this alternative, a total of 7,484 dwelling units and 820,540 square feet of commercial, office, and light industrial uses could be developed on the Project site. In comparison to the Project, this would represent a reduction of approximately 923 dwelling units and 28,880 square feet of commercial, office, and light industrial uses. As a result, construction activities would be incrementally less than under the Project due to the reduction in development under this alternative.



RAFSS Communities Impact Minimization Alternative

Source: KTGY Group, Inc., 2011.

matrix environmental

Figure 2.5-2
Conceptual Avoidance of RAFSS Areas Alternative

Table 2.5-2
Land Use and Development Assumptions
Avoidance of RAFSS Areas Alternative

Notation	Designation	Acreage	Density Assumptions	Dwelling Units	Square Footage
SFR-1	Single-Family Residential 1	192.5	3.6 DU/acre[1]	693	—
SFR-2	Single-Family Residential 2	129.1	6.3 DU/acre[1]	813	—
SFR-3	Single-Family Residential 3	179.4	10.9 DU/acre[1]	1,955	—
MFR	Multi-Family Residential	33.5	17.2 DU/acre[1]	576	—
HDR	High-Density Residential	31.9	26.2 DU/acre	835[2]	
VC	Village Center Commercial	63.8	—	—	602,827
ES	Elementary School	10.0	—	—	—
OS/R	Open Space/Recreation	61.4	—	—	—
OS/JU	Open Space/Joint Use	5.1	—	—	—
	Preserved Listed Species Habitat	1,105.7	—	—	—
	Preserved Non-Listed Species Habitat	399.8	—	—	—
	Listed Species Habitat (within 100 feet of Levee)	25.6	—	—	—
	Non-Listed Species Habitat (within 100 feet of Levee)	90.1	—	—	—
	Preserved Sensitive Riparian Community	19.5	—	—	—
	Roads	99.9	—	—	—
Total		**2,447.3**	**—**	**4,873**	**602,827**

Notes:

1. Based on the same density and development assumptions presented in Table 2-1 of the DEIR (Lytle Creek Ranch Specific Plan—Conceptual Land-Use Plan Summary).
2. The DEIR identified these units as part of the Village Center Commercial (VC) district. Consistent with the Project, the City required that such units be removed from the VC district and put into a separate High-Density Residential (HDR) district, with planning areas that correspond to those planning areas identified as HDR for the Project, however this was not reflected in the DEIR and is being corrected here. As such, the density assumption for the HDR district in this alternative is similar but not identical to that of the Project.

Source: KTGY Group, Inc., 2011.

As with the Project, construction of this alternative would generate pollutant emissions through the use of heavy-duty construction equipment and through haul/delivery truck and construction worker trips. The overall amount of building construction would be less under this alternative compared to the Project. However, fugitive dust and pollutant emissions and from grading operations would be similar on a daily basis, as the duration and not the intensity of these activities could decrease compared to the Project. Maximum daily site grading operations would still require the same amount of heavy-duty construction equipment and would result in 50 acres of disturbed area per day. However, with the reduction in overall square footage, a decrease in the use of on-site equipment and vehicular trips proportional to the decrease in square footage would be anticipated during building construction.

Regional Construction Air Quality Analysis

A regional construction air quality analysis was conducted for this alternative to determine whether this alternative would decrease the severity of the short-term construction air quality impacts associated with the Project (refer to worksheets provided in Appendix V-D). As shown in Table 2.5-3 on page 2-142, unmitigated maximum daily overlapping construction emissions for this alternative would result in 1,773 pounds per day of CO, 1,203 pounds per day of NO_X, 1,950 pounds per day of PM_{10}, 450 pounds per day of $PM_{2.5}$, 215 pounds per day of VOC, and 3 pounds per day of SO_X. In comparison to the Project, this alternative would reduce unmitigated maximum daily overlapping construction emissions by 19 percent for CO (421 pounds per day), 7 percent for VOC (17 pounds per day), 6 percent for PM_{10} (116 pounds per day), 5 percent for $PM_{2.5}$ (25 pounds per day), and similar amounts of NO_X and SO_X. The construction emissions generated by this alternative would be incrementally less than those of the Project over the construction duration and for the unmitigated maximum daily overlapping period.

As with the Project, Mitigation Measure 7-1 through Mitigation Measure 7-9 would be implemented for this alternative to ensure that construction-related emissions are reduced to the maximum extent feasible. With implementation of the recommended mitigation measures and consistent with the Project, unmitigated daily emissions of CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC from heavy-duty construction equipment would be reduced by a minimum of 5 percent. Although the impacts would be reduced, similar to the Project, the emissions associated with this alternative would exceed the significance thresholds established by the SCAQMD for regional CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC. Thus, like the Project, such impacts under this alternative would be significant and unavoidable even with incorporation of mitigation measures.

The footprint of development proposed under this alternative would largely be similar to that proposed by the Project in Neighborhoods I, II, and IV. In Neighborhood III, the footprint of the levee would be moved further south as compared to the Project. Proposed construction under this alternative would not change the proximity of proposed construction activities from off-site sensitive receptors (i.e., the distance from the closest sensitive receptors to proposed construction activities would not change). In addition, maximum daily site grading operations would still require the same amount of heavy-duty construction equipment and would result in 50 acres of disturbed area per day at a similar distance to sensitive receptors. As discussed above, the reduction in overall square footage under this alternative would result in proportional decrease in the use of on-site equipment during building construction in comparison the Project. Nonetheless, the dominant source of emissions is from site grading activities and the intensity of these activities would be similar on a daily basis.

Localized Construction Air Quality Analysis

A localized construction air quality analysis was conducted for this alternative using the same methodology employed in the DEIR (i.e., use of EPA's ISC dispersion model consistent with SCAQMD's Localized Significance Threshold guidance document) to determine whether the alternative would decrease the severity of the short-term localized construction air quality impacts associated with the Project (refer to worksheets provided in Appendix V-D). As shown

Table 2.5-3
Habitat Avoidance Alternative 1:
Estimate of Unmitigated Regional and Localized Construction Emissions[1]
(pounds per day)

	CO	NOx	PM_{10}[2]	$PM_{2.5}$[2]	VOC[3]	SOx
Regional Emissions (On- + Off-Site)						
Neighborhood I	349	382	879	197	55	<1
Neighborhood II	1,024	571	893	208	101	1
Neighborhood III	595	397	767	175	78	<1
Neighborhood IV	178	209	870	188	39	<1
Max Overlapping[4]	**1,773**	**1,203**	**1,950**	**450**	**215**	**3**
SCAQMD Daily Significance Thresholds	550	100	150	55	75	150
Over/(Under)	1,223	1,107	1,800	395	140	(148)
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No
Comparison to Project[4,5]	**2,194**	**1,206**	**2,066**	**475**	**232**	**3**
Difference	(421)	(3)	(116)	(25)	(17)	(<1)
Percent Difference	(19%)	(<1%)	(6%)	(5%)	(7%)	(<1%)
Localized Emissions (On-Site Only)						
Neighborhood I	161	336	876	194	47	<1
Neighborhood II	223	449	882	200	71	<1
Neighborhood III	169	324	761	170	62	<1
Neighborhood IV	131	200	869	188	37	<1
Max Overlapping[3]	507	1,000	1,932	438	167	<1
Comparison to Project[4,5]	**515**	**1,011**	**2,048**	**463**	**175**	**<1**
Difference	(8)	(11)	(116)	(25)	(8)	(<1)
Percent Difference	(<1%)	(<1%)	(6%)	(5%)	(5%)	(<1%)

Notes:

1. Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the URBEMIS model printout sheets and/or calculations
2. PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.
3. VOC emissions estimates are based on compliance with SCAQMD Rule 442 requirements for low VOC solvents and coatings.
4. Maximum regional and localized NO_X PM_{10} and $PM_{2.5}$ emissions occur during combined site preparation and building construction of Neighborhood I, II, and III in 2012.
5. Maximum overlapping emissions as presented in Table 4.7-11 of Section 4.7, Air Quality, of the DEIR.
6. Maximum overlapping localized emissions as presented in Table 5 of the Air Quality Technical Report provided in Volume III of the DEIR.

Source: PCR Services Corporation, 2009; Matrix Environmental, 2012.

in Table 2.5-4 on page 2-143, unmitigated maximum PM_{10} impacts would be reduced from 80.2 µg/m^3 under the Project to 72.7 µg/m^3 under this alternative, but would still exceed the SCAQMD LST threshold of 10.4 µg/m^3. In addition, unmitigated maximum $PM_{2.5}$ impacts would be reduced from 17.9 µg/m^3 under the Project to 16.3 µg/m^3 under this alternative, but would still exceed the SCAQMD LST threshold of 10.4 µg/m^3.

As with the Project, Mitigation Measure 7-1 through Mitigation Measure 7-9 would be implemented for this alternative to ensure that construction-related emissions are reduced to the maximum extent feasible. Implementation of these measures would further reduce localized PM_{10} emissions by about 15 percent (from 72.7 to 61.8 µg/m^3) and $PM_{2.5}$ emissions by about 14

Table 2.5-4
Habitat Avoidance Alternative 1:
Unmitigated Localized Construction Dispersion Analysis

Pollutant and Averaging Period[1]	Residential Receptor (South) Alt HAA 1/Project[6,7]	Residential Receptor (East) Alt HAA 1/Project[6,7]
PM_{10} 24-Hr (ug/m^3)		
Project Incremental Concentration	72.7/80.2	26.6/29.5
LST Threshold	10.4	10.4
Over/(Under)	62.3/69.8	16.2/19.1
Exceed Threshold?	**Yes/Yes**	**Yes/Yes**
$PM_{2.5}$ 24-Hr (ug/m^3)		
Project Incremental Concentration	16.3/17.9	6.0/6.6
LST Threshold	10.4	10.4
Over/(Under)	5.9/7.5	(4.4)/(3.8)
Exceed Threshold?	**Yes/Yes**	**No/No**
CO 1-Hr (ppm)		
Project Incremental Concentration[2]	3.09/3.09	3.04/3.04
LST Threshold	20	20
Over/(Under)	(16.91)/(16.91)	(16.96)/(16.96)
Exceed Threshold?	**No/No**	**No/No**
CO 8-Hr (ppm)		
Project Incremental Concentration[3]	2.14/2.14	2.11/2.11
LST Threshold	9.0	9.0
Over/(Under)	(6.86)/(6.86)	(6.89)/(6.89)
Exceed Threshold?	**No/No**	**No/No**
NO_2 1-Hr (ppm)[5]		
Project Incremental Concentration	0.111/0.111	0.104/0.104
LST Threshold	0.18	0.18
Over/(Under)	(0.069)/(0.069)	(0.076)/(0.076)
Exceed Threshold?	**No/No**	**No/No**

Notes:
1. Maximum localized construction CO, NO_2, PM_{10}, and $PM_{2.5}$ concentrations occur during combined site preparation and building construction of Neighborhoods I, II, and III during 2012.
2. Includes a background concentration of 3.0 ppm.
3. Includes a background concentration of 2.1 ppm.
4. Includes a background concentration of 0.10 ppm.
5. All maximally impacted receptors are within 100 meters of the Project site.
6. Maximum pollutant concentrations for the Project as presented in Table 4.7-12 of Section 4.7, Air Quality, of the DEIR, and Habitat Avoidance Alternative 1 concentrations as presented in Appendix V-D.
7. All maximally impacted receptors are within 100 meters of the Project site.

Source: PCR Services Corporation, 2009; Matrix Environmental, 2012.

percent (from 16.3 to 14.0 µg/m^3), still exceeding the SCAQMD LST threshold of 10.4 µg/m^3. Thus, similar to the Project, impacts associated with localized PM_{10} and $PM_{2.5}$ would be significant and unavoidable even with the incorporation of mitigation measures. This alternative would result in similar CO and NO_2 concentrations as the Project and like the Project, impacts associated with these concentrations would be less than significant.

Based on the above analyses, although construction impacts would be reduced under this alternative in comparison to the Project, construction emissions would result in regional and

localized impacts, which are predicted to be significant and unavoidable for regional CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC, and localized PM_{10} and $PM_{2.5}$.

With respect to construction air toxics, diesel particulate emissions represent the greatest potential for toxic air contaminant (TAC) emissions. As mentioned previously, the construction intensity of this alternative would be slightly reduced in comparison to the Project resulting in reduced diesel particulate emissions. Based on the overall reduction in square footage, it is anticipated that the construction of this alternative would yield a maximum incremental increase in off-site individual cancer risk of about 4.1 in one million, which is slightly less than the Project (4.2 in one million). As with the Project, this alternative would not emit carcinogenic or toxic air contaminants that individually or collectively exceed the maximum individual cancer risk of ten in one million, thus potential construction-related air toxic emission impacts during construction of this alternative would be less than significant.

Operation

As shown in Appendix V-D, the number of daily trips generated by this alternative would decrease by 4 percent in comparison to the Project. As vehicular emissions are dependent on the number of trips, vehicular sources would have a similar decrease in pollutant emissions compared to the Project as shown in Table 2.5-5 on page 2-145. Since the overall square footage is less than the Project, both area sources and stationary sources would generate a similar decrease in pollutant emissions.

Regional Operational Air Quality Analysis

As shown in Table 2.5-5, maximum daily operational emissions for this alternative would result in 837 pounds per day of VOC, 725 pounds per day of NO_X, 3,911 pounds per day of CO, 30 pounds per day of SO_X, 1,538 pounds per day of PM_{10}, and 306 pounds per day of $PM_{2.5}$. In comparison to the Project, this alternative would reduce maximum daily operational emissions by 6 percent for VOC (54 pounds per day), 6 percent for NO_X (48 pounds per day), 2 percent for CO (94 pounds per day), 10 percent for SO_X (3 pounds per day), 4 percent for PM_{10} (67 pounds per day), and 4 percent for $PM_{2.5}$ (14 pounds per day). Thus, the total contributions to regional emissions under this alternative would exceed the significance thresholds established for CO, NOx, PM_{10}, $PM_{2.5}$, and VOC. Thus, similar to the Project, such impacts would be significant and unavoidable.

The local CO hotspot analysis conducted for the Project showed a maximum CO concentration of 4.6 parts per million (ppm) for the 1-hour CO concentration (approximately 77 percent below the 20 ppm standard) and 3.4 ppm for the 8-hour concentration (approximately 62 percent below the 9.0 ppm standard), of which the Project contribution was less than 0.5 ppm for the 1-hour concentration and 0.3 ppm for the 8-hour concentration.[156] This alternative would decrease vehicular traffic by 4 percent in comparison to the Project with a resultant decrease in the Project contribution by approximately 4 percent. Since the localized CO hotspot analysis for

[156] Intersection of Riverside Avenue and Sierra Avenue, Table 4.7-15 of Section 4.7, Air Quality, of the DEIR.

Table 2.5-5
Maximum Habitat Avoidance Alternative 1: Operational Emissions[1]
(Pounds per Day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Alternative						
Mobile	375	418	3,601	10	1,530	298
Area	460	116	277	<1	1	1
Stationary	2	190	33	20	7	7
Total Operational Emissions	**837**	**725**	**3,911**	**30**	**1,538**	**306**
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	782	670	3,361	(120)	1,388	251
Significant?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Comparison to Project Emissions						
Project Total Emissions[2]	891	773	4,004	33	1,604	319
Alternative Total Emissions	837	725	3,911	30	1,538	306
Difference	(54)	(48)	(94)	(3)	(67)	(14)
Percent Difference	(6%)	(6%)	(2%)	(10%)	(4%)	(4%)

Notes:

1. Mobile and area emissions are calculated using the URBEMIS2007 emissions model. Area sources include natural gas consumption, landscape fuel consumption, residential consumer products and miscellaneous sources (e.g., among other things, commercial solvent usage, architectural coatings). Emissions due to Project-related electricity generation are calculated based on guidance provided in the SCAQMD CEQA Air Quality Handbook. Worksheets and modeling output files are provided in Appendix V-D.
2. Project operational emissions as presented in Table 4.7-14 of Section 4.7, Air Quality, of the DEIR. Please note that the Project total emissions were updated to reflect the total mobile, area, and stationary emissions provided in Table 4.7-14 of the DEIR.

Source: PCR Services Corporation, 2009; Matrix Environmental, 2012.

the Project did not result in any significant impacts, this alternative would likewise not have any localized impacts.

Localized Operational Air Quality Analysis

Similar to the Project, this alternative would result in commercial operations that may generate a substantial amount of passenger vehicle trips, delivery truck trips, including truck refrigeration units (TRUs), and large stationary sources (potentially such as boilers at hotels and hospitals) that could result in potential localized operational impacts. An analysis of potential operational impacts for the Project was provided in the *Air Quality Assessment Technical Report-Localized Operational Analysis*, dated May 2010, and provided in the FEIR. To evaluate whether the Project could have an operational LST impact, the study developed and modeled a generic "worst case" commercial site based on reasonable but conservative assumptions consistent with the Project's zoning and permitted uses within the Village Center Commercial (VC) zoning designation intended to maximize localized air quality impacts. The results of the analysis demonstrated that CO, NO_2, PM_{10}, and $PM_{2.5}$ localized operational emissions would result in a less than significant impact. The zoning and permitted uses within the Village Center under this alternative would remain consistent with the Project, and thus the generic "worst case" commercial site analyzed for the Project would remain applicable for this alternative. As with the Project, this alternative would result in less than significant localized operational impacts.

Toxic Air Contaminants

With respect to potential impacts to off-site neighboring properties that may result from TAC emissions associated with long-term operation of the Project, similar to the Project this alternative would allow or conditionally allow for the development and operation of gasoline service stations, automobile repair shops, welding, machine, and metal plating shops, manufacture and assembly facilities, research and development facilities, printing and blueprinting shops, warehouse and distribution centers, and other similar uses within the VC district. A mitigation measure (Mitigation Measure 7-15) for the Project was formulated which would also be applicable to this alternative and would preclude the development of certain land uses that would have an increased potential of emitting toxic pollutants, including: (1) heavy industrial; (2) landfills and transfer stations; (3) hazardous waste and medical waste incinerators; and (4) chrome plating facilities. Specific retail and light or medium industrial facilities that may be allowed under this alternative could still pose airborne risks to nearby sensitive receptors. For example, dry cleaners and gasoline stations routinely handle chemicals and similar products. Those substances, in the regular course of business, can cause TACs to be emitted into the atmosphere. However, CARB has prepared recommended siting guidelines and all new sources of TACs and other acutely hazardous materials (AHMs) would be subject to permit processes which include review and approval from responsible agencies, such as the SCAQMD and the San Bernardino County Fire Department, acting in its role as the Certified Unified Protection Agency (CUPA). Those agencies would, through the review of individual development applications and processing of individual permits, require demonstration of compliance with all applicable regulatory requirements (e.g., T-BACT). As such, all permitted or conditionally permitted industrial, manufacturing, and warehouse-related land uses would fully comply (with respect to siting, design, and operation) with those applicable standards adopted for the purpose of minimizing potential adverse environmental effects potentially associated with those uses. As with the Project, this alternative would result in a less than significant impact related to potential impacts from on-site sources of TACs.

With respect to potential impacts from off-site TACs to on-site residential uses, similar to the Project this alternative would result in new sensitive land uses within the CARB recommended general buffer zone of no less than 500 feet from a freeway or urban road averaging more than 100,000 vehicles per day. While this alternative would result in fewer overall dwelling units in comparison to the Project, proposed dwelling units would be located at a similar distance to the I-15 freeway as the Project. As with the Project, the cancer risk under this alternative would exceed the 10 in one million (10×10^{-6}) threshold, with freeway truck traffic being the major source of TAC exposure. As shown in Table 2.5-6 on page 2-147 the Project constant 70-year exposure cancer risk of 224 cases in one million (224×10^{-6}) for the maximum on-site receptor would be reduced to 199 cases in one million (199×10^{-6}) under this alternative. This level declines to less than 13 cases in one million ($<13 \times 10^{-6}$) for the average on-site receptor with a constant nine-year exposure under the Project and less than 12 cases in one million ($<12 \times 10^{-6}$) under this alternative. Overall, this alternative would result in an 11 percent reduction in the estimated excess cancer risk burden in comparison to the Project. Similar to the Project, even with incorporation of mitigation measures (Mitigation Measures 7-16 and 7-17) this alternative would result in potential impacts to on-site sensitive receptors from off-site sources of TACs.

Table 2.5-6
Estimated Excess Cancer Risks per One Million People

Receptor[1]	Project[2]			Habitat Avoidance Alternative 1[3]		
	70-Year	30-Year	9-Year	70-Year	30-Year	9-Year
Maximum On-Site Residence	224	96	29	199	85	26
Average On-Site Residence	102	44	13	91	39	12

Notes:
1. Maximum on-site residence represents the highest concentration (closest to freeway). Average on-site residence represents average concentration throughout project.
2. Population is based on 8,407 dwelling units and 3.89 persons/unit.
3. Population is based on 7,484 dwelling units and 3.89 persons/unit.

Source: PCR Services Corporation, 2009; Matrix Environmental 2012.

Air Quality Management Plan

From an AQMP consistency standpoint, this alternative, as with the Project, would be generally consistent with the current AQMP. AQMP consistency is based on the following two key indicators: (1) whether the Project will result in an increase in the frequency or severity of existing air quality violations, contribute to new violations, or delay timely attainment of the air quality standards or interim emission reductions specified in the current AQMP; and (2) whether the Project will exceed the assumptions of the AQMP in 2010 or increments thereof based on the year of project build-out or phase.

The first of these indicators pertains to whether the Project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. Because CO is released in the greatest quantities from vehicle exhaust and does not readily disperse into the atmosphere, this first indicator is addressed through the CO modeling performed at major intersections in the general project area. As demonstrated above, with regard to CO, similar to the Project this alternative would not produce significant CO impacts and, therefore, is in compliance with this first indicator.

The second indicator is addressed by determining whether this alternative is consistent with the assumptions included in the 2007 AQMP for the build-out year (2030). The 2007 AQMP estimates that the population within the four-county area will grow from its 1997 level of 13,954,000 to 19,615,000 persons in 2030, yielding a growth of 5,661,000 individuals or a 40.57 percent growth rate for this period.[157] At the more local level, the County area located within the SCAB, will grow from its 1997 level of 1,250,000 to 2,133,000 persons in 2030, yielding a growth of 883,000 individuals or a 70.64 percent over this period. This alternative includes 7,484 residential units or approximately 29,113 residents, which represents about 0.51 percent of the growth anticipated in the SCAG region and about 3.30 percent of the projected County growth. In comparison, the Project includes 8,407 residential units or approximately 32,703

[157] South Coast Air Quality Management District, 2007 Air Quality Management Plan, AQMP Appendix III, Table 2-4, p. III-2-10.

residents, which represents about 0.58 percent of the growth anticipated in the SCAG region and about 3.70 percent of the projected County growth. Since these population estimates represent relatively small portions of the projected growth within the SCAG region and the County through 2030, similar to the Project, this alternative would not exceed the assumptions in the 2007 AQMP based on the year of the Project's build-out.

With the possible exception of construction-related particulate emissions, it can, therefore, be concluded that this alternative would generally comply with the 2007 AQMP, similar to the Project. However, localized modeling shows that site construction under this alternative would result in a substantial increase, defined as ≥10.4 $\mu g/m^3$ of PM_{10} and $PM_{2.5}$ averaged over a 24-hour period, in construction-related particulate emissions. As such, as with the Project, this alternative would add cumulatively to an exceedance of particulate standards. Since the goal of the AQMP is to protect receptors from exceedance conditions, with regard to projected short-term particulate emissions, as with the Project, this alternative would not appear to comply with that provision of the AQMP. Thus, as with the Project, a significant and unavoidable impact would result.

2.5.3.2 Habitat Avoidance Alternative 2

Construction

Under this alternative, a total of 4,873 dwelling units and 602,827 square feet of commercial, office, and light industrial uses could be developed on the Project site. In comparison to the Project, this would represent a reduction of approximately 3,534 dwelling units and 246,593 square feet of commercial, office, and light industrial uses. As a result, construction activities would be incrementally less than under the Project due to the reduction in development under this alternative.

As with the Project, construction of this alternative would generate pollutant emissions through the use of heavy-duty construction equipment and through haul/delivery truck and construction worker trips. The overall amount of building construction would be less under this alternative compared to the Project. However, fugitive dust and pollutant emissions from grading operations would be similar on a daily basis, as the duration and not the intensity of these activities could decrease compared to the Project. Maximum daily site grading operations would still require the same amount of heavy-duty construction equipment and would result in 50 acres of disturbed area per day. However, with the reduction in overall square footage, a decrease in the use of on-site equipment and vehicular trips proportional to the decrease in square footage would be anticipated during building construction.

<u>Regional Construction Air Quality Analysis</u>

A regional construction air quality analysis was conducted for this alternative to determine whether this alternative would decrease the severity of the short-term construction air quality impacts associated with the Project (refer to worksheets provided in Appendix V-D). As shown in Table 2.5-7 on page 2-149, unmitigated maximum daily overlapping construction emissions for this alternative would result in 1,164 pounds per day of CO, 1,093 pounds per day of NO_X, 1,940 pounds per day of PM_{10}, 443 pounds per day of $PM_{2.5}$, 177 pounds per day of VOC, and 3 pounds per day of SO_X. In comparison to the Project, this alternative would reduce

Table 2.5-7
Habitat Avoidance Alternative 2:
Estimate of Unmitigated Regional and Localized Construction Emissions[1]
(pounds per day)

	CO	NOx	PM_{10}[2]	$PM_{2.5}$[2]	VOC[3]	SOx
Regional Emissions (On- + Off-Site)						
Neighborhood I	342	368	878	196	53	<1
Neighborhood II	474	482	885	202	73	1
Neighborhood III	467	368	765	173	69	<1
Neighborhood IV	150	196	869	188	33	<1
Max Overlapping[4]	**1,164**	**1,093**	**1,940**	**443**	**177**	**32**
SCAQMD Daily Significance Thresholds	550	100	150	55	75	150
Over/(Under)	614	993	1,790	388	102	(148)
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**
Comparison to Project[4,5]	**2,194**	**1,206**	**2,066**	**475**	**232**	**3**
Difference	(1,030)	(113)	(126)	(32)	(55)	(<1)
Percent Difference	(47%)	(9%)	(6%)	(7%)	(24%)	(<1%)
Localized Emissions (On-Site Only)						
Neighborhood I	154	323	875	194	45	<1
Neighborhood II	210	429	881	199	62	<1
Neighborhood III	162	314	760	170	55	<1
Neighborhood IV	124	192	868	187	31	<1
Max Overlapping[3]	482	962	1,930	436	150	<1
Comparison to Project[4,5]	**515**	**1,011**	**2,048**	**463**	**175**	**<1**
Difference	(33)	(49)	(118)	(27)	(25)	(<1)
Percent Difference	(6%)	(5%)	(6%)	(6%)	(14%)	(<1%)

Notes:

1. Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the URBEMIS model printout sheets and/or calculations.
2. PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.
3. VOC emissions estimates are based on compliance with SCAQMD Rule 442 requirements for low VOC solvents and coatings.
4. Maximum regional and localized NOx, PM_{10} and $PM_{2.5}$ emissions occur during combined site preparation and building construction of Neighborhood I, II, and III in 2012.
5. Maximum overlapping emissions as presented in Table 4.7-11 of Section 4.7, Air Quality, of the DEIR.
6. Maximum overlapping localized emissions as presented in Table 5 of the Air Quality Technical Report provided in Volume III of the DEIR.

Source: PCR Services Corporation, 2009; Matrix Environmental, 2012.

unmitigated maximum daily overlapping construction emissions by 47 percent for CO (1,030 pounds per day), 24 percent for VOC, (232 pounds per day) 6 percent for PM_{10} (126 pounds per day) and $PM_{2.5}$ (32 pounds per day), 9 percent for NO_X (113 pounds per day), and a similar amount of SO_X. The construction emissions generated by this alternative would be incrementally less than those of the Project over the construction duration and for the unmitigated maximum daily overlapping period.

As with the Project, Mitigation Measure 7-1 through Mitigation Measure 7-9 would be implemented for this alternative to ensure that construction-related emissions are reduced to the

maximum extent feasible. With implementation of the recommended mitigation measures and consistent with the Project, unmitigated daily emissions of CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC from heavy-duty construction equipment would be reduced by a minimum of 5 percent. Although such impacts would be reduced, similar to the Project, this alternative would exceed the significance thresholds established by the SCAQMD for regional CO, NO_X, PM_{10}, $PM_{2.5}$, and VOC. Thus, like the Project, such impacts under this alternative would be significant and unavoidable even with incorporation of mitigation measures.

The footprint of development proposed under this alternative would largely be similar to that proposed by the Project in Neighborhood I. In Neighborhood II, III, and IV, the footprint of the levee would be moved further south as compared to the Project. Proposed construction under this alternative would not change the proximity of proposed construction activities from off-site sensitive receptors (i.e., the distance from the closest sensitive receptors to proposed construction activities would not change). In addition, maximum daily site grading operations would still require the same amount of heavy-duty construction equipment and would result in 50 acres of disturbed area per day at a similar distance to sensitive receptors. As discussed above, the reduction in overall square footage under this alternative would result in proportional decrease in the use of on-site equipment during building construction in comparison the Project. Nonetheless, the dominant source of emissions is from site grading activities and the intensity of these grading activities would be similar on a daily basis.

Localized Construction Air Quality Analysis

A localized construction air quality analysis was conducted for this alternative using the same methodology employed in the DEIR (i.e., use of EPA's ISC dispersion model consistent with SCAQMD's Localized Significance Threshold guidance document) to determine whether the alternative would decrease the severity of the short-term localized construction air quality impacts associated with the Project (refer to worksheets provided in Appendix V-D). As shown in Table 2.5-8 on page 2-151, unmitigated maximum PM_{10} impacts would be reduced from 80.2 $\mu g/m^3$ under the Project to 72.6 $\mu g/m^3$ under this alternative, but would still exceed the SCAQMD LST threshold of 10.4 $\mu g/m^3$. Unmitigated maximum $PM_{2.5}$ impacts would be reduced from 17.9 $\mu g/m^3$ under the Project to 16.2 $\mu g/m^3$ under this alternative, but would still exceed the SCAQMD LST threshold of 10.4 $\mu g/m^3$.

As with the Project, Mitigation Measure 7-1 through Mitigation Measure 7-9 would be implemented for this alternative to ensure that construction-related emissions are reduced to the maximum extent feasible. Implementation of these measures would further reduce localized PM_{10} emissions by about 15 percent (from 72.6 to 61.7 $\mu g/m^3$) and $PM_{2.5}$ emissions by about 14 percent (from 16.2 to 13.9 $\mu g/m^3$), still exceeding the SCAQMD LST threshold of 10.4 $\mu g/m^3$. Thus, like the Project, impacts associated with these localized impacts under this alternative would be significant and unavoidable even with incorporation of mitigation measures. This alternative would result in similar CO and NO_2 concentrations as the Project and impacts from such concentrations would be less than significant.

Based on the above analysis, although construction impacts would be reduced under this alternative in comparison to the Project, construction emissions would cause regional and localized impacts, which are predicted to be significant and unavoidable for regional CO, NO_X, PM_{10}, $PM_{2.5,}$, and VOC, and localized PM_{10} and $PM_{2.5}$.

Table 2.5-8
Habitat Avoidance Alternative 2:
Unmitigated Localized Construction Dispersion Analysis

Pollutant and Averaging Period[1]	Residential Receptor (South) Alt HAA 2/Project[6,7]	Residential Receptor (East) Alt HAA 2/Project[6,7]
PM_{10} 24-Hr (ug/m^3)		
Project Incremental Concentration	72.6/80.2	26.5/29.5
LST Threshold	10.4	10.4
Over/(Under)	62.2/69.8	16.1/19.1
Exceed Threshold?	**Yes/Yes**	**Yes/Yes**
$PM_{2.5}$ 24-Hr (ug/m^3)		
Project Incremental Concentration	16.2/17.9	5.9/6.6
LST Threshold	10.4	10.4
Over/(Under)	5.8/7.5	(4.5)/(3.8)
Exceed Threshold?	**Yes/Yes**	**No/No**
CO 1-Hr (ppm)		
Project Incremental Concentration[2]	3.08/3.09	3.03/3.04
LST Threshold	20	20
Over/(Under)	(16.92)/(16.91)	(16.97)/(16.96)
Exceed Threshold?	**No/No**	**No/No**
CO 8-Hr (ppm)		
Project Incremental Concentration[3]	2.13/2.14	2.11/2.11
LST Threshold	9.0	9.0
Over/(Under)	(6.87)/(6.86)	(6.89)/(6.89)
Exceed Threshold?	**No/No**	**No/No**
NO_2 1-Hr (ppm)[5]		
Project Incremental Concentration	0.110/0.110	0.104/0.104
LST Threshold	0.18	0.18
Over/(Under)	(0.070)/(0.070)	(0.076)/(0.076)
Exceed Threshold?	**No/No**	**No/No**

Notes:

1. Maximum localized construction CO, NO_2, PM_{10}, and $PM_{2.5}$ concentrations occur during combined site preparation and building construction of Neighborhoods I, II, and III during 2012.
2. Includes a background concentration of 3.0 ppm.
3. Includes a background concentration of 2.1 ppm.
4. Includes a background concentration of 0.10 ppm.
5. All maximally impacted receptors are within 100 meters of the Project site.
6. Maximum pollutant concentrations for the Project as presented in Table 4.7-12 of Section 4.7, Air Quality, of the DEIR, and Alternative 2 concentrations as presented in Appendix V-D.
7. All maximally impacted receptors are within 100 meters of the Project site.

Source: PCR Services Corporation, 2009; Matrix Environmental, 2012.

With respect to construction air toxics, diesel particulate emissions represent the greatest potential for TAC emissions. As mentioned previously, the construction intensity of this alternative would be reduced in comparison to the Project resulting in reduced diesel particulate emissions. Based on the overall reduction in square footage, it is anticipated that the construction of this alternative would yield a maximum incremental increase in off-site individual cancer risk of about 2.7 in one million, which is less than the Project (4.2 in one million). As with the project, this alternative would not emit carcinogenic or toxic air contaminants that

individually or collectively exceed the maximum individual cancer risk of ten in one million, potential. Thus, construction-related air toxic emission impacts during construction of this alternative would be less than significant.

Operation

As shown in Appendix V-D, the number of daily trips generated by this alternative would decrease by 32 percent in comparison to the Project. As vehicular emissions are dependent on the number of trips, vehicular sources would have a similar decrease in pollutant emissions compared to the Project as shown in Table 2.5-9 on page 2-153. Since the overall square footage is less than the Project, both area sources and stationary sources would generate a similar decrease in pollutant emissions under this alternative.

Regional Operational Air Quality Analysis

As shown in Table 2.5-9, maximum daily operational emissions for this alternative would result in 530 pounds per day of VOC, 431 pounds per day of NO_X, 2,194 pounds per day of CO, 18 pounds per day of SO_X, 820 pounds per day of PM_{10}, and 164 pounds per day of $PM_{2.5}$. In comparison to the Project, this alternative would reduce maximum daily operational emissions by 40 percent for VOC (361 pounds per day), 44 percent for NO_X (342 pounds per day), 45 percent for CO (1,810 pounds per day), 44 percent for SO_X (15 pounds per day), 49 percent for PM_{10} (784 pounds per day), and 49 percent for $PM_{2.5}$ (155 pounds per day). However, the total contributions to regional emissions under this alternative would remain significant for CO, NOx, PM_{10}, $PM_{2.5}$, and VOC, as is the case with the Project.

As discussed above, this alternative is forecasted to generate 32 percent fewer operational trips than the Project. The local CO hotspot analysis conducted for the Project showed a maximum CO concentration of 4.6 parts per million (ppm) for the 1-hour CO concentration (approximately 77 percent below the 20 ppm standard) and 3.4 ppm for the 8-hour concentration (approximately 62 percent below the 9.0 ppm standard), of which the Project contribution was less than 0.5 ppm for the 1-hour concentration and 0.3 ppm for the 8-hour concentration.[158] This alternative would potentially decrease vehicular traffic by 32 percent in comparison to the Project with a resultant decrease in the Project contribution by approximately 32 percent. Since the localized CO hotspot analysis for the Project did not result in any significant impacts, this alternative would likewise not have any localized impacts.

Localized Operational Air Quality Analysis

Similar to the Project, this alternative would result in commercial operations that may generate a substantial amount of passenger vehicle trips, delivery truck trips, including truck refrigeration units (TRUs), and large stationary sources (potentially such as boilers at hotels and hospitals) that could result in potential localized operational impacts. An analysis of potential operational impacts for the Project was provided in the *Air Quality Assessment Technical Report-Localized*

[158] Intersection of Riverside Avenue and Sierra Avenue, Table 4.7-15 of Section 4.7, Air Quality, of the DEIR.

Table 2.5-9
Unmitigated Maximum Habitat Avoidance Alternative 2 Operational Emissions[1]
(Pounds per Day)

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Alternative						
Mobile	226	228	1,976	5	815	159
Area	303	78	196	<1	1	1
Stationary	1	125	22	13	4	4
Total Operational Emissions	**530**	**431**	**2,194**	**18**	**820**	**164**
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	475	376	1,644	(132)	670	109
Significant?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Comparison to Project Emissions						
Project Total Emissions[2]	891	773	4,004	33	1,604	319
Alternative Total Emissions	530	431	2,194	18	820	164
Difference	(361)	(342)	(1,810)	(15)	(784)	(155)
Percent Difference	(40%)	(44%)	(45%)	(44%)	(49%)	(49%)

Notes:

1. Mobile and area emissions are calculated using the URBEMIS2007 emissions model. Area sources include natural gas consumption, landscape fuel consumption, residential consumer products and miscellaneous sources (e.g., among other things, commercial solvent usage, architectural coatings). Emissions due to Project-related electricity generation are calculated based on guidance provided in the SCAQMD CEQA Air Quality Handbook. Worksheets and modeling output files are provided in Appendix V-D.
2. Project operational emissions as presented in Table 4.7-14 of Section 4.7, Air Quality, of the DEIR. Please note that the Project total emissions were updated to reflect the total mobile area, and stationary emissions provided in Table 4.7-14 of the DEIR.

Source: PCR Services Corporation, 2009; Matrix Environmental 2012.

Operational Analysis, dated May 2010, and provided in the FEIR. To evaluate whether the Project could have an operational LST impact , the study developed and modeled a generic "worst case" commercial site based on reasonable but conservative assumptions consistent with the Project's zoning and permitted uses within the VC zoning designation intended to maximize localized air quality impacts. The results of the analysis demonstrated that CO, NO_2, PM_{10}, and $PM_{2.5}$ localized operational emissions would result in a less than significant impact. The zoning and permitted uses within the Village Center under this alternative would remain consistent with the Project, and thus the generic "worst case" commercial site analyzed for the Project would remain applicable for this alternative. As with the Project, this alternative would result in less than significant localized operational impacts.

Toxic Air Contaminants

With respect to potential impacts to off-site neighboring properties that may result from TAC emissions associated with long-term operation of the Project, similar to the Project this alternative would allow or conditionally allow for the development and operation of gasoline service stations, automobile repair shops, welding, machine, and metal plating shops, manufacture and assembly facilities, research and development facilities, printing and blueprinting shops, warehouse and distribution centers, and other similar uses within the VC district. A mitigation measure (Mitigation Measure 7-15) for the Project was formulated which would also be applicable to this alternative and would preclude the development of certain land

uses that would have an increased potential of emitting toxic pollutants, including: (1) heavy industrial; (2) landfills and transfer stations; (3) hazardous waste and medical waste incinerators; and (4) chrome plating facilities. Specific retail and light or medium industrial facilities that may be allowed under this alternative could still pose airborne risks to nearby sensitive receptors. For example, dry cleaners and gasoline stations routinely handle chemicals and similar products. Those substances, in the regular course of business, can cause TACs to be emitted into the atmosphere. However, CARB has prepared recommended siting guidelines and all new sources of TACs and other AHMs would be subject to permit processes which include review and approval from responsible agencies, such as the SCAQMD and the San Bernardino County Fire Department, acting in its role as the CUPA. Those agencies would, through the review of individual development applications and processing of individual permits, require demonstration of compliance with all applicable regulatory requirements (e.g., T-BACT). As such, all permitted or conditionally permitted industrial, manufacturing, and warehouse-related land uses would fully comply (with respect to siting, design, and operation) with those applicable standards adopted for the purpose of minimizing potential adverse environmental effects potentially associated with those uses. As with the Project, this alternative would result in a less than significant impact related to potential impacts from on-site sources of TACs.

With respect to potential impacts from off-site TACs to on-site residential uses, similar to the Project, this alternative would result in new sensitive land uses within the CARB recommended general buffer zone of no less than 500 feet from a freeway or urban road averaging more than 100,000 vehicles per day. While this alternative would result in fewer overall dwelling units in comparison to the Project, proposed dwelling units would be located at a similar distance to the I-15 freeway as the Project. As with the Project, the cancer risk under this alternative would exceed the 10 in one million (10×10^{-6}) threshold, with freeway truck traffic being the major source of TAC exposure. As shown in Table 2.5-10 on page 2-155 the Project constant 70-year exposure cancer risk of 224 cases in one million (224×10^{-6}) for the maximum on-site receptor would be reduced to 130 cases in one million (130×10^{-6}) under this alternative. This level declines to less than 13 cases in one million ($<13 \times 10^{-6}$) for the average on-site receptor with a constant, 9-year exposure under the Project and less than 8 cases in one million ($<8 \times 10^{-6}$) under this alternative. Overall, this alternative would result in an 42 percent reduction in the estimated excess cancer risk burden in comparison to the Project Similar to the Project even with incorporation of mitigation measures this alternative would result in potential impacts to on-site sensitive receptors from off-site sources of TACs.

<u>Air Quality Management Plan</u>

From an AQMP consistency standpoint, this alternative, as with the Project, would be generally consistent with the current AQMP. AQMP consistency is based on the following two key indicators: (1) whether the Project will result in an increase in the frequency or severity of existing air quality violations, contribute to new violations, or delay timely attainment of the air quality standards or interim emission reductions specified in the current AQMP; and (2) whether the Project will exceed the assumptions of the AQMP in 2010 or increments thereof based on the year of project build-out or phase.

The first of these indicators pertains to whether the Project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. Because CO is released in the greatest quantities from vehicle exhaust and does not readily

Table 2.5-10
Estimated Excess Cancer Risks per One Million People

Receptor[1]	Project[2]			Habitat Avoidance Alternative 2[3]		
	70-Year	30-Year	9-Year	70-Year	30-Year	9-Year
Maximum On-Site Residence	224	96	29	130	56	17
Average On-Site Residence	102	44	13	59	26	8

Notes:
1. Maximum on-site residence represents the highest concentration (closest to freeway). Average on-site residence represents average concentration throughout project.
2. Population is based on 8,407 dwelling units and 3.89 persons/unit.
3. Population is based on 4,873 dwelling units and 3.89 persons/unit.

Source: PCR Services Corporation, 2009; Matrix Environmental 2012.

disperse into the atmosphere, this first indicator is addressed through the CO modeling performed at major intersections in the general project area. As demonstrated above, with regard to CO, similar to the Project this alternative would not produce significant CO impacts and, therefore, is in compliance with this first indicator.

The second indicator is addressed by determining whether this alternative is consistent with the assumptions included in the 2007 AQMP for the build-out year (2030). The 2007 AQMP estimates that the population within the four-county area will grow from its 1997 level of 13,954,000 to 19,615,000 persons in 2030, yielding a growth of 5,661,000 individuals or a 40.57 percent growth rate for this period.[159] At a more local level, the County area located within the SCAB, will grow from its 1997 level of 1,250,000 to 2,133,000 persons in 2030, yielding a growth of 883,000 individuals or a 70.64 percent over this period. This alternative includes 4,873 residential units or approximately 18,956 residents, which represents about 0.34 percent of the growth anticipated in the SCAG region and about 2.15 percent of the projected County growth. In comparison, the Project includes 8,407 residential units or approximately 32,703 residents, which represents about 0.58 percent of the growth anticipated in the SCAG region and about 3.70 percent of the projected County growth. Since these population estimates represent relatively small portions of the Projected growth within the SCAG region and the County through 2030, similar to the Project, this alternative would not exceed the assumptions in the 2007 AQMP based on the year of the Project's build-out.

With the possible exception of construction-related particulate emissions, it can, therefore, be concluded that this alternative generally would comply with the 2007 AQMP, similar to the Project. However, localized modeling shows that site construction under this alternative would result in a substantial increase, defined as ≥10.4 $\mu g/m^3$ of PM_{10} and $PM_{2.5}$ averaged over a 24-hour period, in construction-related particulate emissions. As such, as with the Project, this alternative would add cumulatively to an exceedance of particulate standards. Since the goal of the AQMP is to protect receptors from exceedance conditions, with regard to projected short-

[159] 2007 Air Quality Management Plan, AQMP Appendix III, Table 2-4, p. III-2-10.

term particulate emissions, as with the Project, this alternative would not appear to comply with that provision of the AQMP. Thus, as with the Project, a significant and unavoidable impact would result.

2.5.4 Noise Impacts

Court Ruling

The EIR's discussion of Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) does not contain sufficient evidence to support the conclusions regarding significant noise impacts. The Court finds an abuse of discretion.

Response

The following is provided to support the EIR's conclusions regarding the significant impacts associated with Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) with respect to noise.

2.5.4.1 Habitat Avoidance Alternative 1

Construction

The changes in building massing and configuration that occur under this alternative reflect changes to on-site development that would not result in materially different construction noise impacts than those forecasted for the Project as the construction parameters that determine noise impacts (e.g., type of equipment, number of pieces of equipment, and distance between noise source and closest sensitive receptor) would be similar. As with the Project, the nearest existing residential uses are located along the south boundary of Neighborhood II. Other existing residential uses are located along the south side of Neighborhoods III and IV, along the south side of Riverside Avenue and Lytle Creek Road, respectively.

As with the Project, this alternative would include individual pieces of construction equipment that would produce maximum noise levels of 76 dBA to 90 dBA at a reference distance of 50 feet from the noise source. Any location with an uninterrupted line-of-sight to the construction noise sources could periodically be exposed to temporary noise levels that would exceed 75 dBA at distance of less than 150 feet from the noise source. Consistent with the Project, construction activities associated with this alternative would be conducted in compliance with the City's Noise Ordinance and as such would result in a less-than-significant impact.

Operation

Similar to the Project, vehicular traffic upon build-out would introduce new mobile noise sources and may create a higher noise exposure to residents and other sensitive receptors beyond the noise levels currently experienced or otherwise predicted in the absence of this alternative. As shown in Appendix V-D, daily traffic volumes would be approximately 4 percent less under this alternative than that forecasted to occur under the Project due to the reduction of dwelling units and total square footage of non-residential land uses. This reduction in traffic would occur across the local roadway network and beyond. As such, operational traffic noise impacts under

this alternative would be incrementally less than the Project. As shown in Table 4.8-10 (Off-Site Traffic Noise Analysis—Project-Related and Cumulative Noise Impacts) in Section 4.8, Noise, of the DEIR, increases in project-related traffic noise levels would exceed the significance threshold of 3.0 dBA CNEL at two intersections, resulting in an increase of 3.1 dBA CNEL on Riverside Avenue (between Alder Avenue and Locust Avenue) and 4.4 dBA CNEL on Country Club Drive (north of Riverside Avenue). With the 4 percent reduction in traffic, the increase in noise levels along Riverside Avenue (between Alder Avenue and Locust Avenue) would be reduced to 3.0 dBA CNEL and 4.3 dBA CNEL for Country Club Drive (north of Riverside Avenue). While the noise levels along these roadway segments would be reduced, as with the Project, noise impacts along Country Club Drive (north of Riverside Avenue) and along the south (west) side of Riverside Avenue (between Alder Avenue and Locust Avenue) would be considered significant under Criterion 2 (cause ambient noise levels to increase by 3 dBA CNEL or more at a sensitive receptor location and the resulting noise exceeds 65 dBA CNEL). Thus, as with the Project, these operational noise impacts would be significant and unavoidable.

2.5.4.2 Habitat Avoidance Alternative 2

Construction

The changes in building massing and configuration that occur under this alternative reflect changes to on-site development that would not result in materially different construction noise impacts than those forecasted for the Project as the construction parameters that determine noise impacts (e.g., type of equipment, number of pieces of equipment, and distance between noise source and closest sensitive receptor) would be similar. As with the Project, the nearest existing residential uses under this alternative are located along the south boundary of Neighborhood II. Other existing residential uses are located along the south side of Neighborhoods III and IV, along the south side of Riverside Avenue and Lytle Creek Road, respectively.

As with the Project, this alternative would include individual pieces of construction equipment that would produce maximum noise levels of 76 dBA to 90 dBA at a reference distance of 50 feet from the noise source. Any location with an uninterrupted line-of-sight to the construction noise sources could periodically be exposed to temporary noise levels that would exceed 75 dBA at distance of less than 150 feet from the noise source. Consistent with the Project, construction activities associated with this alternative would be conducted in compliance with the City's Noise Ordinance and as such would result in a less-than-significant impact.

Operation

Similar to the Project, vehicular traffic upon build-out would introduce new mobile noise sources and may create a higher noise exposure to residents and other sensitive receptors beyond the noise levels currently experienced or otherwise predicted in the absence of this alternative. As shown in Appendix V-D, daily traffic volumes would be approximately 32 percent less under this alternative than that forecasted to occur under the Project due to the reduction of dwelling units and total square footage of non-residential land uses. This reduction in traffic would occur across the local roadway network and beyond. As such, operational traffic noise impacts under this alternative would be incrementally less than the Project. As shown in Table 4.8-10 (Off-Site Traffic Noise Analysis—Project-Related and Cumulative Noise Impacts) in Section 4.8, Noise, of

the DEIR, increases in project-related traffic noise levels would exceed the significance threshold of 3.0 dBA CNEL at two intersections, resulting in an increase of 3.1 dBA CNEL on Riverside Avenue (between Alder Avenue and Locust Avenue) and 4.4 dBA CNEL on Country Club Drive (north of Riverside Avenue). With the 32 percent reduction in traffic, the increase in noise levels along Riverside Avenue (between Alder Avenue and Locust Avenue) would be reduced to 2.2 dBA CNEL and the increase in noise levels along Country Club Drive (north of Riverside Avenue) would be reduced to 3.4 dBA CNEL. While noise levels along Riverside Avenue (between Alder Avenue and Locust Avenue) would not be considered significant under Criterion 2 (cause ambient noise levels to increase by 3 dBA CNEL or more at a sensitive receptor location and the resulting noise exceeds 65 dBA CNEL), noise levels along Country Club Drive (north of Riverside Avenue) would be considered significant. Thus, as with the Project, this alternative would result in operational noise impacts that would be significant and unavoidable.

2.5.5 Growth Inducement Impacts

Court Ruling

The EIR's discussion of Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) does not contain sufficient evidence to support the conclusions regarding significant growth inducement impacts. The Court finds an abuse of discretion.

Response

The following is provided to support the EIR's conclusions regarding the significant impacts associated with Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) with respect to growth inducement.

As described in Section 5.0, Growth Inducement, of the DEIR, a significant growth-inducing impact would result if a project were to: (1) conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, or local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or (2) induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). As discussed in detail in Section 5.0, Growth Inducement, of the DEIR, with the adoption of the LCRSP and other discretionary actions, the changes in jurisdictional authority and land-use regulations would result in an intensification of uses and substantial growth beyond that is allowable under the existing City and County zoning. As a result, the Project would result in a significant growth-inducting impact.

2.5.5.1 Habitat Avoidance Alternative 1

As discussed above, this alternative would result in a total of 7,484 residential units and 820,540 square feet of commercial, office, and light industrial uses within a 2,447.3-acre project site. Thus, the types of uses and amount of development proposed under this alternative would be

similar to those proposed under the Project, which proposes 8,407 residential units and 849,420 square feet of non-residential uses within a 2,447.3-acre project site. Therefore, this alternative would require similar discretionary actions as the Project, including, but not limited to, a Pre-Annexation and Development Agreement, a General Plan Amendment and approval of a specific plan.

Like the Project, with the adoption of a specific plan under this alternative, specificity would be established with regard to the land use designations applicable to the Project site and the nature, type and intensity of residential and non-residential development authorized within the specific plan boundaries. In addition, like the Project, through the discretionary actions, in combination with the annexation of a portion of the subject property under this alternative, the Lead Agency would change both the jurisdictional authority over the property and the land use regulations governing the property.

Under the existing City and County zoning designations applicable to the Project site, development activities would be confined to an approximately 1,215.5-acre portion of the 2,447.3-acre project site. Based on existing zoning, a total of approximately 2,215 single-family dwelling units and 1,097,418 square feet of commercial and light industrial development could be constructed. Thus, when compared with what might otherwise be allowable under existing City and County zoning, this alternative would result in an increase of approximately 5,269 residential units and approximately 276,878 less square feet of non-residential uses. Assuming an average household size of 3.896 persons per household and a jobs rate of one new primary job for each 250 square feet of non-residential development, when compared with existing zoning designations, this alternative would foster a population increase of 20,528 persons and would result in a reduction of 1,108 primary jobs. Thus, while this alternative would result in a reduction in primary jobs, this alternative would result in a substantial increase in population growth in the general project area when compared to the population growth that would occur with development under existing zoning.

Based on the above, with the adoption of a specific plan and other discretionary actions under this alternative, the changes in jurisdictional authority and land-use regulations would result in an intensification of uses and substantial growth beyond that is allowable under the existing City and County zoning. As a result, like the Project, this alternative would result in a significant growth-inducting impact.

2.5.5.2 Habitat Avoidance Alternative 2

As discussed above, this alternative would result in a total of 4,873 residential units and 602,827 square feet of commercial, office, and light industrial uses within a 2,447.3-acre project site. Thus, the types of uses proposed under this alternative would be similar to those proposed under the Project. Therefore, this alternative would require similar discretionary actions as the Project, including, but not limited to, a Pre-Annexation and Development Agreement, a General Plan Amendment and approval of a specific plan.

Like the Project, with the adoption of a specific plan under this alternative, specificity would be established with regard to the land use designations applicable to the Project site and the nature, type and intensity of residential and non-residential development authorized within the specific plan boundaries. In addition, like the Project, through the discretionary actions, in

combination with the annexation of a portion of the subject property under this alternative, the Lead Agency would change both the jurisdictional authority over the property and the regulations governing use of the property.

Under the existing City and County zoning designations applicable to the Project site, development activities would be confined to an approximately 1,215.5-acre portion of the 2,447.3-acre project site. Based on existing zoning, a total of approximately 2,215 single-family dwelling units and 1,097,418 square feet of commercial and light industrial development could be constructed. Thus, when compared with what might otherwise be allowable under existing City and County zoning, this alternative would result in an increase of approximately 2,658 residential units and approximately 494,591 less square feet of non-residential uses. Assuming an average household size of 3.896 persons per household and a jobs rate of one new primary job for each 250 square feet of non-residential development, when compared with existing zoning designations, this alternative would foster a population increase of 10,366 individuals and would result in a reduction of 1,978 primary jobs. Thus, while this alternative would result in a reduction in primary jobs, this alternative would result in a substantial increase in population growth in the general project area when compared to the population growth that would occur with development under existing zoning.

Based on the above, with the adoption of a specific plan and other discretionary actions under this alternative, the changes in jurisdictional authority and land-use regulations will result in an intensification of uses and substantial growth beyond that is allowable under the existing City and County zoning. As a result, like the Project, this alternative would result in a significant growth-inducting impact.

2.5.6 Financial Feasibility

Court Ruling

The EIR's findings of economic infeasibility for Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) are not supported by evidence in the record.

Response

In response to the Court Ruling, in December 2011, CBRE Consulting prepared an updated report entitled *Financial Feasibility Analysis of The Lytle Creek Ranch Specific Plan Project and Alternatives to the Project Discussed in the Lytle Creek Ranch Specific Plan EIR.* This analysis, referred to hereafter as the Updated Financial Feasibility Analysis, and associated appendices are included in Appendix V-E to this document. As shown therein, the Updated Financial Feasibility Analysis includes a detailed analysis of the financial feasibility of the Project, Habitat

Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat), and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas).[160]

To assess the financial feasibility of the Project and the alternatives to the Project, CBRE prepared a development pro forma model that calculated the total development costs, estimated the lot sales revenues over the expected 20-year life of the Project, and calculated the return on investment of the Project and the alternatives. As discussed in detail in the Updated Financial Feasibility Analysis, land development costs were calculated based on estimates of major cost categories (e.g., engineering, infrastructure, grading, amenities, landscaping, parks, etc.) and included indirect costs (e.g., legal and other professional costs, pre-opening expenses, marketing costs, insurance, and project management). The analysis accounted for a 2.0 percent annual inflation rate for land values and a 2.5 percent annual inflation rate for development costs over the 20-year development period. As part of the analysis, finished lot prices were calculated based on a detailed appraisal report that included comparative product sales in the Fontana/Rialto area. In addition, "blue-top lot values" were derived by subtracting in-tract finishing costs and various permits and fees from the finished lot prices. Lot values were also adjusted to account for the level of community amenities proposed for the Project and the alternatives to the Project, based on HM2 Marketing Development's December 2011 report entitled *Lytle Creek Ranch Analysis: The Impact of Amenities on Home Values* (referred to herein as the Amenities Report), which was included as part of the Updated Financial Feasibility Analysis, and is part of Appendix V-E of the RPDEIR.

The Amenities Report assesses the extent to which the proposed master plan amenities and the master plan community itself would affect home values associated with the Project as well as the four alternatives to the Project evaluated in the EIR, particularly since the Project and alternatives offer varied amenity packages and two of the alternatives do not constitute master planned communities. In general, the more amenitized a community, the higher the value of the homes within it. Additionally, there is an inherent premium in being located within a true master plan community setting, over a non-master planned community setting. This analysis was then used to support the assessment of the potential economic viability of each development scenario provided in the Updated Financial Feasibility Analysis.[161]

To determine whether the Project and alternatives would be financially feasible, CBRE calculated their Internal Rate of Return (IRR), the industry standard measurement used to evaluate long-term capital real estate investments. CBRE determined that an IRR of 15 to 25

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[160] In addition to the project and these two alternatives, the Updated Financial Feasibility Analysis evaluates the No Project/Existing Zoning Alternative and the Avoidance of Jurisdictional Waters Alternative. As discussed therein, the Internal Rate of Return for the project is estimated as 15.2 percent for the project, 0.3 percent for the No Project/Existing Zoning Alternative, and 5.3 percent for the Avoidance of Jurisdictional Waters Alternative. As the Court Ruling only obligated the City to "revise the EIR with respect to . . . alternatives HAA1 and HAA2," this RPDEIR does not provide a revised discussion of the No Project/Existing Zoning Alternative or the Avoidance of Jurisdictional Water Alternative. The Internal Rate of Return for Habitat Avoidance Alternative 1 and Habitat Avoidance Alternative 2 are discussed below.

[161] The Amenities Report calculated the relative change in value for the project and the four alternatives to the project evaluated in the EIR, as compared to a "base case" master plan in the Rialto/Fontana market at this time, as follows: project—8.0 percent; No Project/Existing Zoning Alternative—-8.4 percent; Habitat Avoidance Alternative 1—6.0 percent; Habitat Avoidance Alternative 2—2.2 percent; and Avoidance of Jurisdictional Waters Alternative—4.9 percent.

percent would be the threshold at which the Project or the alternatives would be considered financially feasible, based on information provided by investors and developers at the Urban Land Institute's 2011 Fall Conference, RealtyRates.com's developer survey for the third quarter of 2011, and CBRE's consulting experience. This IRR range represents typical industry standards for rate of return thresholds.

2.5.6.1 Financial Feasibility of the Project

Under the Project, a total of 8,407 dwelling units and 849,420 square feet of commercial, office, and light industrial uses could be developed on the Project site. The project would be developed as a master planned community and would include a modernized public golf course, a 5.1-acre park adjacent to a new elementary school and a 12-acre park adjacent to a new K–8 school, a 23-acre Grand Paseo Park envisioned with active uses, a 35-acre sports park, and four recreation centers. In addition, the Project would have premium monumentation/definition, an upgraded perimeter wall, and upgraded and enhanced perimeter, and interior streets. Thus, the financial feasibility analysis adjusted the home prices within the Project site to reflect project amenities as compared with a base case scenario described in detail in the Amenities Report.

As discussed in detail in the Updated Financial Feasibility Analysis, under the Project, single-family home sites were estimated to be ready for sale to builders by 2014, with initial annual absorption of 225 units, increasing to 375 units annually thereafter. Multi-family units were assumed to be available after 2018, after the town centers are developed. Initial absorption of multi-family units in 2018 was estimated to start at 100 units with annual absorption reaching up to 400 units in specified years.

As shown in Table 2.5-11 on page 2-163, the estimated development costs associated with the Project would be approximately $216,049,000 for the Project. In addition, as shown in Table 2.5-12 on page 2-164, the Project would result in an estimated blue-top lot value of approximately $431,973,000.

As shown in Table 2.5-13 on page 2-165, based on the detailed analysis in the Updated Financial Feasibility Analysis, the Project would yield a return of approximately 15.2 percent, falling within the industry standard rate of return thresholds of 15 to 25 percent, and thus would be financially feasible.

2.5.6.2 Habitat Avoidance Alternative 1

As shown in Table 2.5-1 on page 2-137, under this alternative, a total of 7,484 dwelling units and 820,540 square feet of commercial, office, and light industrial uses could be developed on the Project site. In comparison to the Project, this would represent a reduction of approximately 923 dwelling units and 28,880 square feet of non-residential uses. Like the Project, the alternative would include a modernized public golf course and 12-acre park adjacent to a new K–8 school, but it would not provide any formal active recreational parks dedicated to the community (including the Grand Paseo Park). In addition, this alternative would not be gated, would not have any monumentation/definition or neighborhood entry definition, and would not

Table 2.5-11
Summary Comparison of Development Costs

Cost Category	Project	Habitat Avoidance Alternative 1	Habitat Avoidance Alternative 2
Planning	1,050,000	850,000	200,000
Printing/Delivery	233,000	233,000	153,000
Civil Engineering	5,427,000	5,751,000	4,692,000
Soils Engineering	1,540,000	1,565,000	1,360,000
Traffic Engineering	80,000	80,000	80,000
Utility Consultant	220,000	220,000	170,000
Landscape Architect	855,000	710,000	425,000
Fees/Bonds/Permits	919,313	895,275	925,686
Impact Fees	21,307,040	18,673,565	11,224,318
Grading	46,043,229	41,420,255	21,988,080
Removals/Relocations	67,920	67,920	67,920
Maintenance Special Construction	—	—	—
Retention/Detention Basins	125,000	125,000	—
Temp. Erosion Control	720,000	720,000	635,000
Sewer System	2,430,700	2,430,700	2,421,900
Water System	2,306,300	2,306,300	2,290,900
Storm Drains/Levee System	48,032,091	49,630,691	35,505,705
Street Improvements	7,668,328	7,339,048	7,940,642
Dry Utilities	1,511,306	1,354,506	1,447,843
Perimeter Retaining Walls	3,714,500	3,714,500	3,118,000
Special Amenities	30,704,125	23,074,125	8,500,000
Entry Features	780,000	780,000	375,000
Interior Walls	—	—	—
Landscaping	6,129,205	3,648,405	5,969,655
Parks	15,173,750	14,573,750	15,173,750
Contingency	19,640,780	18,016,305	12,466,241
Total	**216,048,588**	**198,179,345**	**137,128,640**

Source: *Financial Feasibility Analysis of The Lytle Creek Ranch Specific Plan Project and Alternatives to the Project Discussed in the Lytle Creek Ranch Specific Plan EIR*, CBRE Consulting, December 2011.

be developed as a master planned community.[162] Thus, the financial feasibility analysis adjusted the home prices within this alternative to reflect the alternative's amenities as compared with a base case scenario described in detail in the Amenities Report.

As discussed in detail in the Updated Financial Feasibility Analysis, similar to the Project, single-family home sites were estimated to be ready for sale to builders by 2014, with initial annual absorption of 225 units, increasing to 375 units annually thereafter. Also similar to the Project, multi-family units were assumed to be available after 2018, after the town centers are

[162] Refer to the Amenities Report appended to the Updated Financial Feasibility Analysis included as Appendix V-E to this document for further discussion.

Table 2.5-12
Blue-Top Lot Values

	Density	Units	$/Unit	In-Tract Costs	Blue-Top Lot Values
Project					
SFR-1	3.6	943	$164,000	$65,000	$99,000
SFR-2	6.3	1,908	120,000	55,000	65,000
SFR-3	10.9	2,403	93,000	45,000	48,000
MFR	17.2	1,828	69,000	35,000	34,000
HDR	29.2	1,325	58,000	30,000	28,000
Total			**$810,073,000**		**$431,973,000**
Habitat Avoidance Alternative 1					
SFR-1	3.6	936	$129,000	$65,000	$64,000
SFR-2	6.3	1,549	98,000	55,000	43,000
SFR-3	10.9	2,419	76,000	45,000	31,000
MFR	17.2	1,256	57,000	35,000	22,000
HDR	32.4	1,325	48,000	30,000	184,000
Total			**$591,582,000**		**$252,982,000**
Habitat Avoidance Alternative 2					
SFR-1	3.6	693	$149,000	$65,000	84,000
SFR-2	6.3	813	110,000	55,000	55,000
SFR-3	10.9	1,955	86,000	45,000	41,000
MFR	17.2	576	64,000	35,000	29,000
HDR	26.2	835	54,000	30,000	24,000
Total			**$442,771,000**		**$219,826,000**

Source: *Financial Feasibility Analysis of The Lytle Creek Ranch Specific Plan Project and Alternatives to the Project Discussed in the Lytle Creek Ranch Specific Plan EIR*, CBRE Consulting, December 2011.

developed. Initial absorption of multi-family units in 2018 was estimated to start at 100 units with annual absorption reaching up to 375 units in specified years. Absorption of multi-family units under this alternative would differ somewhat from the Project, which was assumed to have an initial absorption of multi-family units of 100 units in 2018 with annual absorption reaching up to 400 units in specified years.

As shown in Table 2.5-11 on page 2-163, the estimated development costs associated with this alternative would be approximately $198,179,000. When compared with the estimated development costs of approximately $216,049,000 for the Project, this alternative would result in reduced development costs of approximately $17,870,000. In addition, as shown in Table 2.5-12 on page 2-164, this alternative would result in an estimated blue top lot value of approximately $252,982,000. When compared with the estimated blue top lot value of $431,973,000 associated with the Project, the blue top lot value would be reduced by approximately $178,991,000.

As shown in Table 2.5-13, based on the detailed analysis provided in the Updated Financial Feasibility Analysis, this alternative would result in an IRR of approximately 3.8 percent. When compared with the Project's IRR of approximately 15.2 percent, this alternative would reduce

Table 2.5-13
Alternatives to the Project Return on Investment Summary

	Gross Revenues ($ in Millions)	Net Dev. Costs ($ in Millions)	Developer Cash Flow[1] ($ in Millions)	Developer IRR[2]
Project	654	340	314	15.2%
Habitat Avoidance Alternative 1	389	316	74	3.8%
Habitat Avoidance Alternative 2	396	306	89	7.1%

Notes:
1. Cash Flow is net cash flow excluding interest expense or return on equity.
2. IRR is calculated as compound annual return on cumulative dollars invested.

Source: *Financial Feasibility Analysis of The Lytle Creek Ranch Specific Plan Project and Alternatives to the Project Discussed in the Lytle Creek Ranch Specific Plan EIR*, CBRE Consulting, December 2011.

the IRR of the Project by 11.4 percent. While this alternative would generate positive cash flow before financing costs, under current market conditions this alternative would yield a return that would not be adequate to attract the necessary equity capital. Specifically, as described above, an IRR of 15 to 25 percent is considered the industry standard threshold that reflects an acceptable level of risk for long-term capital investments. Thus, the substantial reduction in the IRR under this alternative when compared with the Project is sufficiently severe as to render it financially infeasible. In contrast, as described above, the Project would yield a return of approximately 15.2 percent, falling within the industry standard rate of return thresholds of 15 to 25 percent, and thus would be financially feasible.

2.5.6.3 Habitat Avoidance Alternative 2

As shown in Table 2.5-2 on page 2-140, under this alternative a total of 4,873 dwelling units and 602,827 square feet of commercial, office, and light industrial uses could be developed on the Project site. In comparison to the Project, this would represent a reduction of approximately 3,534 dwelling units and 246,593 square feet of non-residential uses. Similar to the Project, the alternative would include three recreation centers, a Paseo Park, and a 5.1-acre park adjacent to a new elementary school, but it would not include a golf course, an associated clubhouse, or a sports park. In addition, while this alternative would be developed as a master planned community, it would not be gated, would have only modest monumentation/definition, and would not have any neighborhood entry definition.[163] Thus, the financial feasibility analysis adjusted the home prices within this alternative to reflect the alternative's amenities as compared with a base case scenario described in detail in the Amenities Report.

As discussed in detail in the Updated Financial Feasibility Analysis, similar to the Project, single family home sites were estimated to be ready for sale to builders by 2014, with initial annual absorption of 225 units, increasing to 375 units annually thereafter. Also similar to the Project, multi-family units were assumed to be available after 2018, after the town centers are

[163] Refer to the Amenities Report appended to the Updated Financial Feasibility Analysis included as Appendix V-E to this document for further discussion.

developed. Initial absorption of multi-family units in 2018 was estimated to start at 100 units with annual absorption reaching up to 300 units in specified years. Absorption of multi-family units would differ somewhat from the Project, which was assumed to have an initial absorption of multi-family units of 100 units in 2018 with annual absorption reaching up to 400 units in specified years.

As shown in Table 2.5-11 on page 2-163, the estimated development costs associated with this alternative would be approximately $137,129,000. When compared with the estimated development costs of approximately $216,049,000 for the Project, this alternative would result in reduced development costs of approximately $78,920,000. In addition, as shown in Table 2.5-12 on page 2-164, this alternative would result in an estimated blue top lot value of approximately $219,826,000. When compared with the estimated blue top lot value of $431,973,000 associated with the Project, the blue top lot value would be reduced by approximately $212,147,000.

As shown in Table 2.5-13 on page 2-165, based on the detailed analysis provided in the Updated Financial Feasibility Analysis, this alternative would result in an IRR of approximately 7.1 percent. When compared with the Project's IRR of approximately 15.2 percent, this alternative would reduce the IRR of the Project by 8.1 percent. While this alternative would generate positive cash flow before financing costs, under current market conditions this alternative would yield a return that would not be adequate to attract the necessary equity capital. Specifically, as described above, an IRR of 15 to 25 percent is considered the industry standard threshold that reflects an acceptable level of risk for long-term capital investments. Thus, the substantial reduction in the IRR under this alternative when compared with the Project is sufficiently severe as to render it financially infeasible. In contrast, as described above, the Project would yield a return of approximately 15.2 percent, falling within the industry standard rate of return thresholds of 15 to 25 percent, and thus would be financially feasible.

2.5.7 Project Objectives

Court Ruling

The City's findings regarding the reasons to reject Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) for not meeting all of the Project's objectives are not supported by substantial evidence.

Response

The discussion below is provided in response to the Court's Ruling. Specifically, an analysis of whether and the extent to which Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would achieve the Project's objectives is provided to supplement the discussion in the EIR and support the City's findings. The objectives defined for the Project are listed in Table 2.5-14 on page 2-167, which provides a comparative summary of the attainment of the stated objectives by the Project and the two alternatives.

As indicated in Table 2.5-14, several of the Project objectives identified in the EIR were based on goals and policies contained within the City of Rialto 1992 General Plan, which was in effect at the time the EIR was prepared. Since that time, the City adopted an updated General Plan in

Table 2.5-14
Comparative Evaluation of Project Alternatives' Attainment of Stated Objectives

Stated Objectives	Project	Habitat Avoidance Alternative 1	Habitat Avoidance Alternative 2
Lead Agency's Objectives			
GP-1: Encourage annexation which will demonstrate net benefit to the City (Land Use Element, Goal 4.1.1).[a]	Attain	Attain	Attain
GP-2: Demonstrate compatibility of land uses both within and adjacent to the planning area (Land Use Element, Policy 4.1.1.4).[b]	Attain	Attain	Attain
GP-3: Demonstrate protection of all resources valued by the citizens of Rialto, including, but not limited to, views, trees and other landscaping features, aquifers, surface water courses, and historic buildings (Land Use Element, Policy 4.1.1.5).[c]	Attain	Attain	Attain
GP-4: Ensure that development is adequately served with essential public services and infrastructure including, but not limited to, streets, water, surface drainage, sanitary sewers, law enforcement, fire protection, and public schools (Land Use Element, Goal 4.1.7).[d]	Attain	Attain	Attain
LA-1: Accommodate development activities both within the City of Rialto and its Sphere of Influence that further the overall intent of the City General Plan.	Attain	Attain	Attain
LA-2: Protect and enhance residential neighborhoods, commercial districts, and other areas by encouraging physical development that is of high quality and is compatible with the character, scale, and function of surrounding areas.	Attain	Attain	Attain
LA-3: Provide for and encourage development that contains a compatible mix of residential and nonresidential uses within close proximity to each other.	Attain	Attain	Attain
LA-4: Respond to local and regional needs for additional housing opportunities in response to anticipated areawide population growth	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
LA-5: Unless identified hazards can be effectively reduced, restrict or otherwise limit future develop in those areas containing identified public safety hazards.	Attain	Attain	Attain
LA-6: Provide for and/or facilitate the introduction and expansion of economic opportunities and benefits for the City and its residents.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
LA-7: Reduce, to the extent feasible, adverse impacts to City and County services, service providers, and systems resulting from permitted development.	Attain	Attain	Attain
LA-8: Ensure that man and nature can effectively coexist.	Attain	Attain	Attain
LA-9: Ensure that sufficient sewer capacity and other requisite services and systems are available to accommodate projected demand.	Attain	Attain	Attain

Table 2.5-14 (Continued)
Comparative Evaluation of Project Alternatives' Attainment of Stated Objectives

Stated Objectives	Project	Habitat Avoidance Alternative 1	Habitat Avoidance Alternative 2
LA-10: Private development activities should be deemed by the City to be fiscally prudent.	Attain	Not Attain	Not Attain
Applicant's Objectives			
A-1: Build upon the platform of high-quality design, architecture, and landscaping established by neighboring residential communities to provide a northern gateway to the City of Rialto that offers new and exciting amenities to residents.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
A-2: Establish a conservation-based community through the creation of open space preservation areas that will provide functioning habitats for sensitive, threatened, and endangered species, preserve Lytle Creek and minimize impacts to its riparian and alluvial fan sage scrub habitats, while providing other wildlife benefits.	Attain	Attain	Attain
A-3: Locate and integrate the design of open space areas with significant blocks of native habitat and natural vegetation landscaping through the provision of habitat linkages and wildlife movement corridors in the region.	Attain	Attain	Attain
A-4: Maximize opportunities for using native plant material/species in the project landscaping, especially in areas where such landscaping is located in proximity to areas of preserved native habitat.	Attain	Attain	Attain
A-5: Develop freeway-oriented commercial areas to serve regional needs and stimulate job and revenue growth in the City.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
A-6: Concentrate development within neighborhoods to promote greater efficiency of land use and promote walking and bicycling by providing a network off pleasant, safe, and convenient pedestrian trails and bike lanes.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
A-7: Respond to the unmet need for active-adult communities in the Rialto area by providing residents with a golf course-oriented community and a variety of conveniently located on-site amenities.	Attain	Partially Attain/ Attain to lesser extent than Project	Not Attain
A-8: Provide the City and surrounding community with a redesigned public golf course and clubhouse, recreation and open space areas, parks, and trails to meet the City General Plan goals to provide such facilities to maintain and enhance the City's quality of life.	Attain	Partially Attain/ Attain to lesser extent than Project	Not Attain
A-9: Address the City's current and projected housing needs for all segments of the community by providing a range of family-oriented single- and multi-family residences, as well as an active-adult golf course community.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
A-10: Establish a mix of land uses and local-serving activities that meet the City General Plan's objectives concerning community character and pedestrian-friendly design.	Attain	Attain	Attain

Table 2.5-14 (Continued)
Comparative Evaluation of Project Alternatives' Attainment of Stated Objectives

Stated Objectives	Project	Habitat Avoidance Alternative 1	Habitat Avoidance Alternative 2
A-11: Implement the City General Plan's Land Use Element goal to facilitate annexation of large areas of land that are governed by a specific plan, which provides for compatibility of land uses, fiscal balance, recreation, and resource protection.	Attain	Attain	Attain
A-12: Create a transportation network that will fulfill the policies of the City General Plan's Circulation Element by allowing residents to live within proximity to schools, recreational opportunities, retail centers, and commercial development, and by minimizing vehicle trips utilizing access to a variety of transportation opportunities, including pedestrian pathways, bikeways, regional freeways, transit, and Metrolink.	Attain	Partially Attain/ Attain to lesser extent than Project	Partially Attain/Attain to lesser extent than Project
A-13: Address regional infrastructure concerns by locating development in areas where opportunities for ground water recharge are maintained and the life of ground water aquifers are protected.	Attain	Attain	Attain
A-14: Incorporate "green" and sustainable practices, as practicable, in developing buildings and infrastructure.	Attain	Attain	Attain
A-15: Identify and address safety hazards, such as wildfire and flooding dangers, through implementation of design safety features and levee improvements.	Attain	Attain	Attain
A-16: Undertake development of the project site in a manner that is economically feasible and balanced to address both the Applicant's and the City's economic concerns.	Attain	Not Attain	Not Attain

Notes:

[a] Objective GP-1 corresponds to Land Use Element Goal 4.1.1 of the of the City of Rialto 1992 General Plan, which was in effect at the time the EIR was prepared. Although the wording varies slightly, GP-1 similarly corresponds to Land Use Element Goal 2-7 of the City's 2010 General Plan, which is now in effect.

[b] Objective GP-2 corresponds to Land Use Element Policy 4.1.1.4 of the of the City of Rialto 1992 General Plan, which was in effect at the time the EIR was prepared. Although a similar goal or policy is not provided in the City's 2010 General Plan now in effect, GP-2 pertains to general land use compatibility issues, which are addressed in a manner more specific to sensitive land uses in the current Land Use Element Goal 2-9.

[c] Objective GP-3 corresponds to Land Use Element Policy 4.1.1.5 of the of the City of Rialto 1992 General Plan, which was in effect at the time the EIR was prepared. Although a comparable single goal or policy is not provided in the City's 2010 General Plan now in effect, GP-3 touches on issues addressed in the current Land Use Element Goals 2-14, 2-28, and 2-39, as well as Land Use Element Policy 2-18.2.

[d] Objective GP-4 corresponds to Land Use Element Goal 4.1.7 of the of the City of Rialto 1992 General Plan, which was in effect at the time the EIR was prepared. Although a similar goal or policy is not provided in the City's 2010 General Plan now in effect, implementation of the current Land Use Element Policy 2-7.3 would yield the same general results as GP-4 in terms of the provision of adequate public services and facilities.

Source: Matrix Environmental, 2012.

2010, which contains both revised and new goals and policies. Those goals and policies in the 2010 General Plan that correspond most closely to the Project's General Plan-based objectives are identified in Table 2.5-14.

2.5.7.1 Habitat Avoidance Alternative 1

Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would achieve most, but not all, of the Project objectives, including those defined by the Lead Agency and the Applicant, and a number of those would be met to a lesser degree as compared to the Project. The alternative would meet the City's General Plan objectives (GP-1 through GP-4) identified for the Project, and most would be met to the same extent as the Project. Like the Project, the alternative would include the annexation of land into the City, involve the development of compatible land uses, and ensure the provision of adequate public services and infrastructure to serve the proposed development as well as the preservation of natural habitat occupied by the federally endangered San Bernardino kangaroo rat and the federally-listed least Bell's vireo would remain undeveloped, thus resulting in the protection of this resource. As such, GP-1 through GP-4 would be attained, similar to the Project.

The alternative would also meet the Lead Agency objectives (LA-1 through LA-10) identified for the Project, but not to the same degree as the Project for many of the objectives. Specifically, LA-1 through LA-3 and LA-5 would be attained to the same degree as the Project since the alternative would similarly involve development activities within both the City and its Sphere of Influence, provide for high quality and compatible development, and reduce public safety hazards. However, the alternative would not achieve LA-4 to the same extent as the Project.

Although the provision of 7,484 residential units under this alternative would be sufficient to meet the City's projected housing need of 4,323 units (as identified in the Southern California Association of Governments' (SCAG) Final Regional Housing Needs Allocation Plan for the planning period of January 1, 2006 to June 30, 2014), this alternative would not provide as many dwelling units as the Project (i.e., 8,407 units). In any event, the provision of a greater number of units than the total identified need does not necessarily indicate that the need would be met, as the housing need is broken down by income category (e.g., affordable to very low income, low income, etc.; see Table 4.2-14 in the EIR for this breakdown), thus without restrictions on rents or sale prices, the proposed units would not meet the income-specific housing needs despite the provision of more than 4,323 units. In addition, SCAG's projected housing need covers a timeframe through 2014, whereas build-out of the alternative would not occur until 2030. Moreover, a portion of the new units would be located in areas outside of the City's current boundaries (areas which were not accounted for in SCAG's housing need calculations for the City but which would ultimately be annexed into the City), thus the when accounting for those areas the housing need would be greater than the current SCAG projections indicate. The City's current adopted General Plan acknowledges that land costs remain high throughout Southern California due to a limited supply of undeveloped land combined with high demand.[164] These factors, combined with the increased need for housing in the City as well as the greater County, highlight the importance and need for the most efficient use of existing undeveloped land. The project site is uniquely large and well-situated, allowing the provision of a substantial number and diverse mix of housing units in addition to a variety of amenities such as park and recreational resources. The alternative would provide less housing (and fewer amenities) than the Project, while also sacrificing the Project's efficiency in terms of

[164] City of Rialto General Plan, December 2010, Housing Element, page 6-39.

land use. As such, while Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would generally meet objective LA-4, it would not do so to the same degree as the Project due to the relative reduction in the number of residential units provided.

Objective LA-6 also would be met to a lesser extent than the Project. Due to the reduced amount of both residential and non-residential development as compared to the Project, the alternative would not expand economic opportunities to the same degree nor would it generate as much tax revenue. Consequently, the economic benefits to the City would be reduced as compared to those associated with the Project. For similar reasons, the alternative would not attain LA-10. As discussed in detail in Section 2.5.6.2 of this analysis, the alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent.

With regard to objectives LA-7 through LA-9, the alternative would meet these objectives. By providing a reduced amount of both residential and non-residential development as compared to the Project, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would generate a smaller residential and employment population, thus resulting in a lesser demand for City and County services, including the demand for sewer capacity. Finally, similar to GP-3 discussed above, LA-8 would be met due to the preservation of natural habitat.

The Applicant's project-specific objectives (A-1 through A-16) would also be met to varying degrees in comparison to the Project. Objectives A-4, A-10, and A-13 through A-15 would generally be attained based on development elements similar to those of the Project, including the provision of landscaping with native plants, the development of a compatible mix of local-serving uses that exhibit positive community character, the protection of groundwater resources, the incorporation of "green" and sustainable practices, and the implementation of design safety features and levee improvements. Attainment of A-11 would be mixed under the alternative, as portions of the Project site would be annexed into the City similar to the Project, but as discussed herein with respect to other objectives, fiscal benefits would be reduced while biological resource protection would be attained.

The objectives relating to project amenities and economic benefits would be achieved to a lesser extent. Specifically, A-1, A-6 through A-8, and A-12 all involve the provision of amenities such as parks, recreation and open space areas including a golf course, pedestrian trails, and bike lanes. Although the alternative would include a golf course and 12-acre park adjacent to the new K–8 school, it would not provide any formal active recreational parks dedicated to the community.[165] This contrasts with the Project, which would involve an enhanced Grand Paseo Park with active recreation, four recreation centers, a golf course, a 35-acre sports park, a 5.1-acre joint-use park adjacent to a new elementary school, and a 12.1-acre joint-use park adjacent to a new K–8 school. In addition, the alternative would not be a master planned community (as the Project would be) and thus would not feature the same degree of interconnection, including via trails and bike lanes, between the various project areas, nor would it offer the same accessibility to recreational opportunities since fewer recreational amenities

[165] Refer to the Amenities Report appended to the Updated Financial Feasibility Analysis included as Appendix V-E to this document for further discussion.

would be provided. Consequently, objectives A-1, A-6 through A-8, and A-12 would be partially attained/not attained to the same extent as under the Project.

Objectives A-5 and A-16 involve economic issues. As previously discussed, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would not expand economic opportunities to the same degree as the Project nor would it generate as much tax revenue for the City. Job growth would also not be as extensive, as the alternative would generate an estimated 3,282 jobs in comparison to the Project's 3,398 jobs. Furthermore, the alternative was determined not to be financially feasible. Therefore, while A-5 would be partially attained to a lesser extent that the Project, A-16 would not be attained by Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat).

Objective A-9 relates to the City's housing needs, which are addressed in detail above with respect to LA-4. In addition, the alternative's reduced number of units may result in a narrower range of available prices/rents on the Project site, which would not be able to meet the needs of all segments of the community. As previously concluded, the alternative would not meet the City's housing needs to the same extent as the Project due to the provision of fewer residential units. As such, the alternative would achieve A-9 to a lesser extent than the Project.

Objectives A-2 and A-3 involve the protection of natural habitat. These objectives would be met due to the preservation of natural habitat under the alternative, as previously discussed.

In summary, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would achieve most of the Project objectives but would not attain two of them: LA-10 or A-16. Nine objectives (LA-4, LA-6, A-1, A-5 through A-9, and A-12) would be met to a lesser degree than the Project. Overall, the alternative would not meet the Project objectives as well as the Project.

2.5.7.2 Habitat Avoidance Alternative 2

Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would achieve most, but not all, of the Project objectives, including those defined by the Lead Agency and the Applicant, and many would be met to varying degrees as compared to the Project. The alternative would meet the City's General Plan objectives (GP-1 through GP-4) identified for the Project, and most would be met to the same extent as the Project. Like the Project, the alternative would include the annexation of land into the City, involve the development of compatible land uses, and ensure the provision of adequate public services and infrastructure to serve the proposed development. As such, GP-1, GP-2, and GP-4 would be attained, similar to the Project. Also like the Project, GP-3 would be achieved under this alternative since development in areas identified as Riversidian alluvial fan sage scrub, a natural community that supports the federally endangered San Bernardino kangaroo rat, would be minimized, thus resulting in the protection of this resource.

The alternative would also meet the Lead Agency objectives (LA-1 through LA-10) identified for the Project, although to varying degrees. Specifically, LA-1 through LA-3 would be attained to the same degree as the Project since the alternative would similarly involve development activities within both the City and its Sphere of Influence, provide for high quality and compatible development, and reduce public safety hazards. However, the alternative would not achieve LA-4 to the same extent as the Project. Although the provision of 4,873 residential units under

this alternative would be more than sufficient to meet the City's projected housing need of 4,323 units (as identified in SCAG's Final Regional Housing Needs Allocation Plan for the planning period of January 1, 2006 to June 30, 2014), this alternative would not provide as many dwelling units as the Project (i.e., 8,407 units). In any event, the provision of a greater number of units than the total identified need does not necessarily indicate that the need would be met, as the housing need is broken down by income category (e.g., affordable to very low income, low income, etc.; see Table 4.2-14 in the EIR for this breakdown), thus without restrictions on rents or sale prices, the proposed units would not meet the income-specific housing needs despite the provision of more than 4,323 units. In addition, SCAG's projected housing need covers a timeframe through 2014, whereas build-out of the alternative would not occur until 2030. Moreover, a portion of the new units would be located in areas outside of the City's current boundaries (areas which were not accounted for in SCAG's housing need calculations for the City but which would ultimately be annexed into the City), thus the when accounting for those areas the housing need would be greater than the current SCAG projections indicate. The City's current adopted General Plan acknowledges that land costs remain high throughout Southern California due to a limited supply of undeveloped land combined with high demand.[166] These factors, combined with the increased need for housing in the City as well as the greater County, highlight the importance and need for the most efficient use of existing undeveloped land. The project site is uniquely large and well-situated, allowing the provision of a substantial number and diverse mix of housing units in addition to a variety of amenities such as park and recreational resources. The alternative would provide less housing (and fewer amenities) than the Project, while also sacrificing the Project's efficiency in terms of land use. As such, while Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would generally meet objective LA-4, it would not do so to the same degree as the Project due to the relative reduction in the number of residential units provided.

Objective LA-6 also would be met to a lesser extent than the Project. Due to the reduced amount of both residential and non-residential development as compared to the Project, the alternative would not expand economic opportunities to the same degree nor would it generate as much tax revenue. Consequently, the economic benefits to the City would be reduced as compared to those associated with the Project. For similar reasons, the alternative would not attain LA-10. As discussed in detail in Section 2.5.6.3 of this analysis, the alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent.

With respect to LA-5, the alternative would achieve this project objective as all development would be located behind the Federal Emergency Management Agency (FEMA) 100-year floodplain line, thereby minimizing flood risks. Similarly, the alternative would also attain LA-7 through LA-9. By providing a reduced amount of both residential and non-residential development as compared to the Project, the alternative would generate a smaller residential and employment population, thus resulting in a lesser demand for City and County services, including the demand for sewer capacity. Finally, similar to GP-3 discussed above, LA-8 would be met due to the extent of preservation of natural habitat.

[166] City of Rialto General Plan, December 2010, Housing Element, page 6-39.

The Applicant's project-specific objectives (A-1 through A-16) would also be met to varying degrees in comparison to the Project. Objectives A-4, A-10, and A-13 through A-15 would generally be attained based on development elements similar to those of the Project, including the provision of landscaping with native plants, the development of a compatible mix of local-serving uses that exhibit positive community character, the protection of groundwater resources, the incorporation of "green" and sustainable practices, and the implementation of design safety features and levee improvements. Attainment of A-11 would be mixed under the alternative, as portions of the Project site would be annexed into the City similar to the Project, but as discussed herein with respect to other objectives, fiscal benefits would be reduced while biological resource protection would be greater than under the Project.

The objectives relating to project amenities and economic benefits would be achieved to a lesser extent or not at all. Objectives A-1, A-6 and A-12 involve the provision of amenities such as parks, recreation and open space areas, pedestrian trails, and bike lanes, while A-7 and A-8 specifically refer to the provision of a golf course. Although the alternative would include three recreation centers, a Paseo Park, and a 5.1-acre park adjacent to the new elementary school, it would not include a golf course, an associated clubhouse, or a sports park.[167] This contrasts with the Project, which would involve an enhanced Grand Paseo Park with active recreation, four recreation centers, a golf course, a 35-acre sports park, a 5.1-acre joint-use park adjacent to a new elementary school, and a 12.1-acre joint-use park adjacent to a new K–8 school. In addition, the alternative would not offer the same accessibility to recreational opportunities since fewer amenities would be provided. Consequently, objectives A-1, A-6 and A-12 would be partially attained/not attained to the same extent as under the Project, and A-7 and A-8 would not be attained at all.

Objectives A-5 and A-16 involve economic issues. As previously discussed, the alternative would not expand economic opportunities to the same degree as the Project nor would it generate as much tax revenue for the City. Job growth would also not be as extensive, as the alternative would generate an estimated 2,411 jobs in comparison to the Project's 3,398 jobs. Furthermore, the alternative was determined not to be financially feasible. Therefore, while A-5 would be partially attained to a lesser extent that the Project, A-16 would not be attained by Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas).

Objective A-9 relates to the City's housing needs, which are addressed in detail above with respect to LA-4. In addition, the alternative's reduced number of units may result in a narrower range of available prices/rents on the Project site, which would not be able to meet the needs of all segments of the community. As previously concluded, the alternative would not meet the City's housing needs to the same extent as the Project due to the provision of fewer residential units. Moreover, the alternative would not include an active adult, golf course-oriented community and thus would not fulfill this aspect of the objective. As such, the alternative would only partially attain A-9, and those elements achieved by the alternative would be met to a lesser extent than under the Project.

[167] Refer to the Amenities Report appended to the Updated Financial Feasibility Analysis included as Appendix V-E to this document for further discussion.

Objectives A-2 and A-3 involve the protection of natural habitat. These objectives would be met due to the preservation of natural habitat under the alternative, as previously discussed.

In summary, Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would achieve most of the Project objectives but would not attain four of them: LA-10, A-7, A-8, or A-16. Seven objectives (LA-4, LA-6, A-1, A-5, A-6 A-9, and A-12) would be met to a lesser degree than the Project. Overall, the alternative would not meet the Project objectives as well as the Project.

2.5.8 General Plan Consistency

Court Ruling

The City's findings regarding the reasons to reject Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) for not meeting goals of the draft General Plan are not supported by substantial evidence. Given that the City has not adopted the draft General Plan, its reliance on it as setting forth policy is questionable.

Response

The discussion below is provided in response to the Court's Ruling. In December 2010, several months after the City originally approved the Project and certified the EIR, the City adopted an updated General Plan, which was only in draft form at the time of project approval. The discussion below provides an analysis of whether and the extent to which Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be consistent with key, applicable goals and policies of the updated (and now current) General Plan. This discussion, which also compares the Project's consistency with the updated General Plan for contextual purposes, is provided in Table 2.5-15 on page 2-176.

In summary, although both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be consistent with many of the applicable goals and policies of the updated General Plan, either to the same extent as or to a lesser extent than the Project, these alternatives would be inconsistent with several key goals and policies. Specifically, Habitat Avoidance Alternative 1 would be inconsistent with Goal 2-7, Policy 2-7.4, Policy 2-8.1, Goal 2-10, Policies 2-10.1 to 2-10.3, Policy 2-12.5, Goal 2-27, Policy 2-27.2, and Goal 3-1. In addition, Habitat Avoidance Alternative 2 would be inconsistent with Goal 2-7, Policy 2-14.1, Goal 3-1, and Goal 3-16, and partially inconsistent with Policy 2-19.1 and Policy 2-19.5.

Table 2.5-15
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Land Use			
Goal 2-2: Develop the Riverside Avenue Corridor to become an economically viable local service area.	**Consistent.** The project proposes to develop a currently vacant area adjacent to Riverside Avenue between Interstate 15 and Linden Avenue. Specifically, as part of Neighborhood III, the Project would provide for a variety of uses fronting Riverside Avenue, including commercial, residential, open space, and educational uses.	**Consistent but to a lesser extent than the Project.** This alternative would minimize the development proposed within the LCRSP area and thus would reduce the variety of land uses proposed along Riverside Avenue.	**Consistent but to a lesser extent than the Project.** This alternative would minimize the development proposed within the LCRSP area and thus would reduce the variety of land uses proposed along Riverside Avenue.
Policy 2-2.1: Prevent strip commercial development and other inappropriate land uses such as industrial or logistics on Riverside Avenue. Uses such as commercial, multi-unit residential, and office would be deemed appropriate.	**Consistent.** The project would provide for a variety of uses fronting Riverside Avenue, including commercial, residential, open space, and educational uses. No strip commercial development is planned. All commercial development will be concentrated into carefully designed shopping centers and developments.	**Consistent to the same extent as the Project.** Although this alternative proposes to minimize the amount of development at the Project site, this alternative nonetheless includes the same type of uses as the Project and does not include strip commercial development.	**Consistent to the same extent as the Project.** Although this alternative proposes to minimize the amount of development at the Project site, this alternative nonetheless includes the same type of uses as the Project and does not include strip commercial development.
Goal 2-6: Encourage the annexation of San Bernardino County unincorporated areas into Rialto.	**Consistent.** The project would involve the annexation of 1,753.1 acres of unincorporated County land into the City.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would involve the annexation of 1,753.1 acres of unincorporated County land into the City.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would involve the annexation of 1,753.1 acres of unincorporated County land into the City.
Policy 2-6.1: Work with the County of San Bernardino to require that the City of Rialto's building and zoning regulations be applied to new development	**Consistent.** All new development within the LCRSP will be built to the standards required by the City of Rialto.	**Consistent to the same extent as the Project.** As with the Project, all new development within the LCRSP proposed under this alternative will be built to the	**Consistent to the same extent as the Project.** As with the Project, all new development within the LCRSP proposed under this alternative will be built to the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
within unincorporated County islands and other areas within Rialto's Sphere of Influence.		standards required by the City of Rialto.	standards required by the City of Rialto.
Goal 2-7: Encourage all annexations that will provide a benefit to the City.	**Consistent.** Stanley R. Hoffman Associates prepared a May 6, 2010, fiscal analysis of projected impacts of the LCRSP (after build-out) on the City General Fund. That analysis indicates that as long as the City's 8 percent utility tax is in effect, or replaced by a PERS property tax, then the Project would satisfy fiscal impact goals of the City. In addition, the CBRE financial feasibility analysis for the Project, provided in Appendix V-E, indicates that the Project is financially feasible. In addition, the Project will provide a minimum of 908.0 acres of open space and an additional 828.8 acres of other recreational amenities, including a golf course, parks, and trails.	**Inconsistent.** The City has not prepared a fiscal analysis of projected impacts of this alternative on the City General Fund, but if this alternative were to be selected, the City would conduct such an analysis. However, as discussed in detail in Section 2.5.6.2 of this analysis, the alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent from a developer's standpoint. In addition, despite the provision of a golf course and 12-acre joint-use park adjacent to the new K–8 school, the alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Furthermore, the alternative would not provide any formal active recreational parks dedicated to the community as would the Project.	**Inconsistent.** The City has not prepared a fiscal analysis of projected impacts of this alternative on the City General Fund, but if this alternative were to be selected, the City would conduct such an analysis. However, as discussed in detail in Section 2.5.6.3 of this analysis, the alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent from a developer's standpoint. In addition, despite the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school, the alternative would not provide a golf course, an associated clubhouse, or a sports park as would the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 2-7.1: Require an approved specific plan for all new large unincorporated areas of vacant land prior to annexation into Rialto.	**Consistent.** The project consists of the adoption and implementation of the proposed LCRSP.	**Consistent to the same extent as the Project.** The alternative would involve the adoption and implementation of a specific plan.	**Consistent to the same extent as the Project.** The alternative would involve the adoption and implementation of a specific plan.
Policy 2-7.2: Require a fiscal impact statement for any new large planned development to ensure that Rialto receives financial benefit from annexation.	**Consistent.** Stanley R. Hoffman Associates prepared a May 6, 2010, fiscal analysis of projected impacts of the LCRSP (after build-out) on the City General Fund. That analysis indicates that as long as the City's 8% utility tax is in effect, or replaced by a PERS property tax, then the Project would satisfy fiscal impact goals of the City.	**Not Applicable.** The City has not prepared a fiscal analysis of projected impacts of this alternative on the City General Fund, but if this alternative were to be selected, the City would conduct such an analysis.	**Not Applicable.** The City has not prepared a fiscal analysis of projected impacts of this alternative on the City General Fund, but if this alternative were to be selected, the City would conduct such an analysis.
Policy 2-7.3: Require sufficient impact fees on new planned development to assure timely construction of public facilities and provision of expanded City services.	**Consistent.** The project would pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** The alternative would pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** The alternative would pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 2-7.4: Require that land be set aside for community parks and other public facilities as appropriate for any large planned development.	**Consistent.** Under the LCRSP, 908.0 acres of open space and an additional 328.8 acres of recreational uses would be created. The project would include an approximately 23-acre Grand Paseo Park, environed with active recreational uses, as well as a 35-acre Sports Park with athletic fields and multiple playgrounds.	**Inconsistent.** This alternative would include approximately 301.4 acres dedicated to open space/recreation and 12 acres as open space/joint use. However, as noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/recreation acreage provided under this alternative	**Consistent but to a lesser extent than the Project.** This alternative would include approximately 61.4 acres dedicated to open space/ recreation and 5.1 acres for open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide a

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community.	Paseo Park with active recreational uses.
Goal 2-8: Preserve and improve established residential neighborhoods in Rialto.	**Consistent.** The project would provide residential and community-serving uses as well as open space and pedestrian amenities adjacent to existing residential neighborhoods. Through the placement of compatible adjacent development and the provision of additional community-serving uses, the LCRSP will help to preserve and improve nearby established residential areas.	**Consistent but to a lesser extent than the Project.** Although this alternative would provide for a mix of uses at the Project site, less development would occur under this alternative, and accordingly, this alternative would therefore provide less community-serving uses compared to the Project. Thus, this alternative would not encourage neighborhood preservation and stabilization to the extent the Project would.	**Consistent but to a lesser extent than the Project.** This alternative greatly minimizes the amount of neighborhood-serving facilities proposed within the LCRSP area and would therefore not serve to improve adjacent established residential neighborhoods to the same extent the Project would.
Policy 2-8.1: Promote neighborhood identity and preservation of individual neighborhood character by preserving or creating neighborhood gateway features. This includes the Las Colinas Core Group and the North End (Pepper Avenue) Neighborhood Group.	**Consistent.** The project proposes the placement of an entry feature on Riverside Avenue announcing to residents and visitors that they are entering the City's northern "gateway." This entry feature will include low-entry signage made of local stone and containing City identification and a representation of the "Rialto Bridge," a water feature, groupings of flowering trees and/or accent trees, and flowering shrubs. The entry feature will be lighted at night with soft accent	**Inconsistent.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would provide a stand-alone perimeter wall, it would not be gated, would	**Consistent but to a lesser extent than the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be gated or provide individual neighborhood entry definition, but would provide modest community monumentation or definition. This alternative would provide a cohesive overall community identity, but not on a

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	lighting. New residential development within the Project site will include ground signs and landscaping at key entrances, which will help to improve the identity and distinctiveness of the City's neighborhoods.	not provide any community or neighborhood monumentation or definition.	neighborhood by neighborhood level. As such, this alternative would not promote this policy to the same extent as the Project.
Policy 2-8.3: Require all new housing built adjacent to designated major or secondary highways to face a residential street, with driveways on the side street. Require landscaped barrier walls to preserve the privacy of residential side yards and protect them from traffic noise and pollution.	**Consistent.** Where feasible, single-family detached homes will either front or side onto primary streets to minimize the amount of wall facing the primary street. If fronting on the primary street, vehicular access to these homes may be provided via local streets or alleyways. Residential areas will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and appropriate.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-8.4: Discourage extreme changes in scale between adjacent structures (i.e., multi-story building walls immediately adjacent to single-unit residences). Encourage appropriate setbacks and other architectural features that provide a gradual change in scale.	**Consistent.** The project seeks to implement a development that utilizes successful neighborhood design standards including, but not limited to, integrating site planning, architecture, and landscaping to create a unified neighborhood concept. In addition, the Project would comply with appropriate setbacks to the extent possible.	**Consistent to the same extent as the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, and thus would be developed in more piecemeal fashion with less control over consistent design throughout. However, as this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would many utilize similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Goal 2-9: Protect residential, schools, parks, and other sensitive land uses from the impacts associated with industrial and trucking-related land uses, as well as commercial and retail areas.	**Consistent.** Residential areas will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and appropriate.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would install buffer walls, as necessary to protect residential areas from noise, pollution, and danger of excessive vehicular traffic.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would install buffer walls, as necessary to protect residential areas from noise, pollution, and danger of excessive vehicular traffic.
Policy 2-9.1: Require mitigation and utilize other techniques to protect residential development and other sensitive land uses near industrial land uses or within identified health risk areas from excessive noise, hazardous materials and waste releases, toxic air pollutant concentrations, and other impacts.	**Consistent.** Where abutting mining and industrial areas, the LCRSP permits residential walls and fences to extend up to ten feet in height. Landscaping and/or walls will screen mining machines, stockpiles, vehicles, and other mining related facilities from ground level views. In addition, residential areas will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and appropriate.	**Consistent to the same extent as the Project.** As with the Project, this alternative would install buffer walls to protect residential areas near industrial land uses (i.e., Cemex USA and Vulcan Materials Company quarries).	**Consistent to the same extent as the Project.** As with the Project, this alternative would install buffer walls to protect residential areas near industrial land uses (i.e., Cemex USA and Vulcan Materials Company quarries).
Community Design			
Goal 2-10: Create distinctive gateways at all entry points into Rialto and for individual districts or neighborhoods. **Policy 2-10.1:** Continue the use of monument signs at focal points within the community and at major and minor gateways. Establish unified entry treatments at major entries into the City.	**Consistent.** The project proposes the placement of an entry feature on Riverside Avenue announcing to residents and visitors that they are entering the City's northern "gateway." This entry feature will include low-entry signage made of local stone and containing City identification and a representation of the "Rialto Bridge," a water feature, groupings of flowering trees and/or accent trees, and flowering shrubs. The entry feature	**Inconsistent.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would provide a stand-alone perimeter	**Consistent but to a lesser extent than the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be gated or provide individual neighborhood entry definition, but would provide modest community monumentation or definition. This alternative would provide a cohesive overall community

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 2-10.2: Design and implement themed landscape treatments near freeway off- and on- ramps to announce entry into Rialto. **Policy 2-10.3:** Encourage new and established neighborhoods to provide ground signs and landscaping at a major street entrance to reinforce their identity.	will be lighted at night with soft accent lighting. New residential development within the Project site will include ground signs and landscaping at key entrances, which will help to improve the identity and distinctiveness of the City's neighborhoods.	wall, it would not be gated, would not provide any community or neighborhood monumentation or definition.	identity, but not on a neighborhood by neighborhood level. As such, this alternative would not promote this policy to the same extent as the Project.
Goal 2-11: Design streetscapes in Rialto to support and enhance the City's image as a desirable place to live, work, shop, and dine.	**Consistent.** Along primary streets, the streets will include extensive landscaping, including a 30-foot-wide parkway (on one side). Curb separated sidewalks will also be used to enhance the streetscape. In addition, the Project will be designed to promote social connectivity. Specifically, homes will be designed to have a strong relationship to the street so that residents have direct views of the street and outdoor living space to enhance the sense of safety and community. In addition, through the provision of the commercial and education uses, the Project would provide employment opportunities and places for residents and visitors to shop and dine.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.
Policy 2-11.1: Require the screening of commercial or	**Consistent.** Landscaping and/or walls will screen mining machines,	**Consistent to the same extent as the Project.** As this	**Consistent to the same extent as the Project.** As this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
industrial parking areas, storage yards, stockpiles, and other collections of equipment from the public right-of-way.	stockpiles, vehicles, and other mining related facilities from ground level views. In addition, the Project would minimize the visual impacts associated with commercial parking lots by using a variety of techniques, including, but not limited to depression of parking lot grade, wherever feasible, to reduce the visual impact of automobiles when seen from the street; development of screen walls and landscaped buffers at sufficient height to conceal car grillwork and nuisance headlights into the street; parking lot design which breaks up parking areas with landscaped belts, thereby reducing the massive and unbroken appearance of paved surfaces; or continuous connection of planters rather than isolated tree wells and planters separated by wide expanses of paving.	alternative would utilize similar design standards regarding screening of commercial or industrial areas as the Project, it would be consistent to the same extent as the Project.	alternative would utilize similar design standards regarding screening of commercial or industrial areas as the Project, it would be consistent to the same extent as the Project.
Policy 2-11.2: Provide and maintain street trees and parkway landscaping within the public right-of-way for developed properties within Rialto. Require private development to do the same as per City design regulations.	**Consistent.** The project includes preservation of at least 829.2 acres of natural (undisturbed) open space. In addition, the Project would provide continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar streetscape and landscape design standards	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape and landscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	extent than the Project.
Policy 2-11.3: Provide planted median strips, parkway planting, and turning pockets on Riverside Avenue throughout the City, and extend the landscape median wherever possible.	**Consistent.** The project would improve Riverside Avenue to include a 14-foot-wide striped median, three travel lanes in each direction, a 24-foot-wide landscaped parkway containing a 5-foot-wide parkway-sidewalk adjacent to the Project site and a 13-foot-wide landscaped parkway with a 4.5-foot-wide parkway-adjacent sidewalk along the opposite side of the street.	**Consistent to the same extent as the Project.** This alternative would provide for the same improvement as the Project along Riverside Avenue.	**Consistent to the same extent as the Project.** This alternative would provide for the same improvement as the Project along Riverside Avenue.
Policy 2-11.4: Incorporate street trees and other landscape treatments along corridors to provide sufficient shade canopy and promote pedestrian comfort.	**Consistent.** The project would provide continuous parkways along streets, uniform street trees on each street, and pocket parks to provide shade for pedestrians.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar streetscape and landscape design standards as the Project, as indicated in the HM2 Marketing Development	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape and landscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	
Policy 2-11.5: Require that projects with perimeter walls (including gated residential communities) provide an interesting streetscape, with pedestrian access to major travel ways.	**Consistent.** The project is designed to minimize the use of walls and fences. Where used, walls will be designed to provide an interesting streetscape through varying wall planes, textures, colors, and materials, providing vine pockets and other landscaped techniques, and occasionally varying setbacks and front wall planes. In addition, where barrier walls installed for noise and safety reasons abut a street, landscaping will be installed to help screen and beautify the walls. Perimeter walls will also incorporate shrub massings, vine pockets, and/or informal tree massing to minimize the vertical scale of the wall.	**Consistent to the same extent as the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, but would include a perimeter wall. As this alternative would utilize many similar streetscape and landscape design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar streetscape and landscape design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-12: Design new streets to be pedestrian friendly.	**Consistent.** The landscape design for the Project provides for street trees along all streets of all classifications. Where space allows, street trees will include tree species that provide sufficient canopy to shade the street and promote a pedestrian scale. In addition, through the provision of a variety of pedestrian amenities, the	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Project would encourage street activity, promote walking, and allow convenient access to parks, schools, and local shopping.	Though this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.
Policy 2-12.1: Require the use of attractive street furniture (benches, trash receptacles, planters, bicycle racks) in the Downtown area, along Foothill Boulevard, and other highly visible areas to communicate the City's identity and pride.	**Consistent.** The project seeks to implement a development that utilizes successful neighborhood design standards including, but not limited to, integrating site planning, architecture, and landscaping to create a unified neighborhood concept. All new development within the LCRSP will be built to the standards required by the City of Rialto.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.
Policy 2-12.2: Use textured paving or similar design features	**Consistent.** Pedestrian walkways including, but not necessarily limited	**Consistent but to a lesser extent than the Project.** This	**Consistent but to a lesser extent than the Project.** Though

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
to define pedestrian crossings, particularly near pedestrian activity areas such as Downtown. **Policy 2-12.3:** Install curb extensions (i.e., bulb out or similar enhancements) at pedestrian crossings to shorten the crossing distance required, wherever feasible. Additional pedestrian protections, including bollards and defensible space landscape treatments, should be utilized as well. **Policy 2-12.4:** Enhance pedestrian walkways directly under building canopies by one or more of the following techniques: interlocking or textured paving, turf block walls, theme plantings, trees projecting through canopies, bollards and kiosks, pavilions or gazebos, and trellises and arbors planted with flowering vines.	to, those directly under building canopies, will be enhanced by one or more of the following techniques: interlocking or textured paving, aggregate or colored concrete, broom finished concrete or other decorative finish, turf block walls, theme plantings, trees plantings, canopies, bollards and kiosks, benches, seat walls, pavilions or gazebos, and/or trellises and arbors planted with flowering vines. Where pedestrian crossings are provided, curbs may be pinched to shorten the crossing distance required. Additional pedestrian protections, including bollards and defensible space landscape treatment may be required to ensure pedestrian safety.	alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	this alternative would utilize many similar design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide only area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.
Policy 2-12.5: Maximize potential pedestrian connections through the use of highly visible gateways, walkways, and directional signs and the installation of traffic-calming devices where appropriate.	**Consistent.** The project includes a network of often interconnecting trails, bike lanes, parkways, and paseos. Specifically, the Project proposes a "Grand Paseo" which will interconnect the three proposed neighborhood parks and provide a 70 to 110-foot-	**Inconsistent.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would	**Consistent but to a lesser extent than the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be gated or provide individual neighborhood entry

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	wide non-vehicular greenbelt linking a substantial portion of the Project site. In addition, the Project would provide continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks for pedestrian connectivity. The project would also provide for on-street parking in residential neighborhoods which will help to calm traffic, as will narrower street cross-sections. Two traffic roundabouts are presently planned in the active-adult neighborhood (Neighborhood II) to help slow traffic.	be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would provide a stand-alone perimeter wall, it would not be gated, would not provide any community or neighborhood monumentation or definition. Ultimately, this alternative could result in a less cohesive community where potential pedestrian connections are not maximized.	definition, but would provide modest community monumentation or definition. This alternative would provide a cohesive overall community identity, but not on a neighborhood by neighborhood level. Ultimately, this alternative could result in a less cohesive community where potential pedestrian connections are not maximized to the same extent as the Project.
Policy 2-12.6: Require landscape screens in new commercial developments larger than 15,000 square feet directly in front of the stores rather than leaving the façade barren. The intent of the landscape screen is to improve the scale by visually lowering the building height and mass without impeding access or identity of the buildings function.	**Consistent.** In established residential and commercial areas, street trees and other introduced landscaping will provide screening for buildings and visual relief of large expanses of pavement to produce an overall softening of hard surfaces.	**Consistent to the same extent as the Project.** As this alternative would utilize similar design standards regarding screening of commercial areas as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize similar design standards regarding screening of commercial areas as the Project, it would be consistent to the same extent as the Project.
Policy 2-12.7: Shade bus shelters and other outdoor use areas from the sun. Commercial projects along major corridors in Rialto shall incorporate at least one bus shelter, taxi stop,	**Consistent.** Within the proposed development, additional bus stops will be provided along the length of Riverside Avenue, as permitted by the City of Rialto and the local transit authority (Omnitrans). Bus stops will	**Consistent to the same extent as the Project.** As this alternative would utilize similar transportation features as the Project, it would be consistent to	**Consistent to the same extent as the Project.** As this alternative would utilize similar transportation features as the Project, it would be consistent to

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
bicycle rack, and/or similar transportation or pedestrian features. The design of these features shall be consistent with the identity, feel, and theme of that corridor.	consist of covered transit benches and areas allowing for the posting of bus routes and schedules.	the same extent as the Project.	the same extent as the Project.
Goal 2-13: Achieve quality aesthetic design of all signage in the City of Rialto. **Policy 2-13.1:** Prohibit the indiscriminate placement of highway directional signs, traffic signs, street identification signs, and other similar devices in any manner that creates visual blight or driver confusion. **Policy 2-13.2:** Require consistent design quality and themes for directional signage along public streets.	**Consistent.** The project seeks to implement a development that utilizes successful neighborhood design standards including, but not limited to, integrating site planning, architecture, and landscaping to create a unified neighborhood concept. All new development within the LCRSP will be built to the standards required by the City of Rialto. Specifically, all project signage would be designed in accordance with Chapter 18.102 of the Rialto Municipal Code.	**Consistent to the same extent as the Project.** All new development under this alternative will be built to the standards required by the City of Rialto.	**Consistent to the same extent as the Project.** All new development under this alternative will be built to the standards required by the City of Rialto.
Policy 2-13.3: Require that all ground signs incorporate landscape treatment to reduce visual height and impact from the street.	**Consistent.** Ground signs and landscaping are proposed at key entrances of new residential development, which will help to improve the identity and distinctiveness of the City's neighborhoods.	**Consistent but to a lesser extent than the Project.** As described in the HM2 Marketing Development report provided in Appendix V-E, this alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over	**Consistent to the same extent as the Project.** Similar to the Project, any ground signs proposed under this alternative will include landscaping.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		consistent design throughout. Thus, though this alternative will satisfy this policy requirement, due to its non-master-planned nature, such landscaping treatments may not be uniform to the same extent as the Project.	
Goal 2-14: Protect scenic vistas and scenic resources.	**Consistent.** As indicated in Section 4.13, Aesthetics, of the DEIR, the anticipated visual changes that may occur following construction will not result in the introduction of significant adverse aesthetic impacts. In addition, the visual character of the important viewsheds would generally retain their scenic integrity.	**Consistent to the same extent as the Project.** Though this alternative would reduce the amount of development proposed under the Project, it would maintain existing open space areas within the Project site. As such, this alternative would preserve the existing viewshed and protect scenic vistas and scenic resources similar to that of the Project.	**Consistent but to a lesser extent than the Project.** This alternative would reduce the amount of development proposed under the Project and would maintain existing open space areas within the Project site. However, this alternative proposes to place residential development, with densities of 8-14 dwelling units per acre, adjacent to an existing single-family community, resulting in additional land use compatibility and aesthetic impacts on established residential areas that would not otherwise occur under the Project if the golf course were to remain. Though this alternative would generally protect scenic vistas and scenic resources, it would be less consistent with this goal than the Project.
Policy 2-14.1: Protect views of the San Gabriel and San Bernardino Mountains by	**Consistent.** As indicated in Section 4.13, Aesthetics, of the DEIR, background vistas of the San Gabriel	**Consistent to the same extent as the Project. Though** this alternative would reduce the	**Inconsistent.** Though this alternative would greatly reduce the amount of development

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
ensuring that building heights are consistent with the scale of surrounding, existing development.	and San Bernardino Mountains will not be obscured.	amount of development proposed under the Project, it would maintain existing open space areas within the Project site. As such, this alternative would preserve existing views of the San Bernardino mountains similar to that of the Project.	proposed under the Project and maintain existing open space areas within the Project site, this alternative proposes to place residential development, with densities of 8-14 dwelling units per acre, adjacent to an existing single-family community, resulting in additional land use compatibility and aesthetic impacts on established residential areas that would not otherwise occur under the Project if the golf course were to remain. As such, this alternative would not ensure that building heights are consistent with the scale of surrounding, existing development.
Policy 2-14.3: Ensure use of building materials that do not produce glare, such as polished metals or reflective windows.	**Consistent.** As indicated in Section 4.13, Aesthetics, of the DEIR, although the precise nature and composition of materials to be used within the Project site has yet to be determined, the materials that will be used will be similar to those materials already widely used in the construction of similar projects throughout the City and County without substantial loss of visual acuity. As such, reflective glare is not anticipated to manifest at a significant impact. In addition, although representing new source of illumination, all street lighting will	**Consistent to the same extent as the Project.** As this alternative would utilize similar materials as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize similar materials as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	conform to and be maintained in accordance with the standards of the City and the County, and as such street lights would not constitute potential new sources of direct glare.		
Goal 2-16: Improve the architectural and design quality of development in Rialto. **Policy 2-16.1:** Require new development and construction to exhibit a high level of quality architectural design to emphasize community uniqueness, individuality, and historical references.	**Consistent.** Implementation of the LCRSP would result in a high quality residential and commercial neighborhood. Specifically, the neighborhoods will be designed so that each will have a unique identity and individual character. Each neighborhood will have its own landscape palette, as well as design elements and features, to create an identifiable street scene. In addition, the Project's architectural character seeks to reflect the design influenced by the historical precedents of development traditionally found throughout the City and the Inland Empire during the late 19th and early to mid 20th Centuries.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar architectural and design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, it would not be gated, would not provide any community or neighborhood monumentation or definition. Accordingly, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural and design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-16.2: Require architectural identity for individual commercial corridors, while also encouraging a variety of architectural features to create visual interest and	**Consistent.** Implementation of the LCRSP would result in a high quality residential and commercial neighborhood. The neighborhoods will be designed so that each will have a unique identity and individual	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural and design standards as the Project, it would be consistent to the same extent

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
pedestrian scale.	character. Each neighborhood will have its own landscape palette, as well as design elements and features, to create an identifiable street scene as part of a master planned community.	be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar architectural and design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, it would not be gated, would not provide any community or neighborhood monumentation or definition. Accordingly, this alternative would be consistent, but to a lesser extent than the Project.	as the Project
Policy 2-16.3: Discourage architectural monotony. **Policy 2-16.4:** Discourage the design of boxy structures; emphasize articulation of the front façade and the horizontal plane with multi-story structures. **Policy 2-16.5:** Require developers to vary building and parking setbacks along the streetscape to create visual interest.	**Consistent.** The LCRSP includes standards to encourage innovation in project design including variations in architectural products and styles, setbacks, driveways, rooflines, materials, colors, and landscape treatments. Enclaves of homes will vary in size and density to promote diversity and interesting and varied neighborhoods.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar architectural and design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, it would not be gated, would not provide any community or neighborhood monumentation or	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural and design standards as the Project, it would be consistent to the same extent as the Project

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		definition. Accordingly, this alternative would be consistent, but to a lesser extent than the Project.	
Policy 2-16.6: Require architectural treatments on all façades facing rights-of-way, public streets, and alleys, including windows, doors, architectural details, and landscape treatment.	**Consistent.** As described in the LCRSP, buildings visible from the public right-of-way would be designed with articulated elevations (e.g., elevations with doors, windows, porches, balconies, dormers, trim and mouldings, roofline variations, or other architectural features), and with clearly defined entries.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural and design standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural and design standards as the Project, it would be consistent to the same extent as the Project
Goal 2-17: Provide high-quality and environmentally sustainable landscaping. **Policy 2-17.1:** Require the planting of street trees along public streets and inclusion of trees and landscaping for private developments to improve airshed, minimize urban heat island effect, and lessen impacts of high winds.	**Consistent.** The project includes preservation of at least 829.2 acres of natural (undisturbed) open space. In addition, the Project would provide continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks for pedestrian connectivity. Furthermore, the Project includes shade and anchorage for swings and hammocks which would contribute to opportunities for natural structural cooling and allow for carbon	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar landscape design standards as the Project, this alternative would	**Consistent to the same extent as the Project.** As this alternative would utilize many similar landscape design standards as the Project, it would be consistent to the same extent as the Project

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 2-17.2: Require all new development to incorporate tree plantings dense enough to shade and beautify residential and commercial areas. P**olicy 2-17.3:** Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	sequestering. Additionally, the Project would provide for drought-tolerant species.	be consistent, but to a lesser extent than the Project.	
Goal 2-18: Protect Rialto's small-town character.	**Consistent.** The project's architectural character seeks to reflect the design influenced by the historical precedents of development traditionally found throughout the City and the Inland Empire during the late 19th and early to mid 20th Centuries. In addition, as described above, the Project includes numerous design features which promote a neighborhood-based pedestrian scale.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural standards as the Project, it would be consistent to the same extent as the Project
Policy 2-18.1: Require all new development and renovations within residential neighborhoods to be consistent with the existing scale, massing, and landscaping of that neighborhood.	**Consistent.** Through the placement of compatible adjacent development, the LCRSP will respect the scale, massing, and landscape of nearby residential areas.	**Consistent but to a lesser extent than the Project.** As this alternative would not be developed as a master-planned development, this alternative could result in a less cohesive community that may be less compatible with adjacent established residential	**Consistent to the same extent as the Project.** This alternative would be developed as a master planned community resulting in a cohesive, integrated whole and would be consistent in scale, massing, and landscaping of that community and of nearby

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		neighborhoods.	residential areas.
Policy 2-18.2: Protect, to the extent feasible, the natural character of the areas bordering or in close proximity to the Santa Ana River and Lytle Creek.	**Consistent.** The project includes preservation of at least 829.2 acres of natural (undisturbed) open space. Over 50 percent of the LCRSP is devoted to open space and recreational uses.	**Consistent to the same extent as the Project.** This alternative includes preservation of 596.6 acres of listed species habitat, 330.3 acres of non-listed species habitat, 44.4 acres of listed species habitat (within 100 feet of levee), and 84.6 acres of non-listed species habitat (within 100 feet of levee).	**Consistent to the same extent as the Project.** This alternative includes preservation of 1,105.7 acres of listed species habitat, 399.8 acres of non-listed species habitat, 25.6 acres of listed species habitat (within 100 feet of levee), 90.1 acres of non-listed species habitat (within 100 feet of levee), and 19.5 acres of sensitive riparian community habitat.
Goal 2-19: Encourage neighborhood preservation, stabilization, and property maintenance.	**Consistent.** The project would provide residential and community-serving uses as well as open space and pedestrian amenities adjacent to existing residential neighborhoods. Through the placement of compatible adjacent development and the provision of additional community-serving uses, the LCRSP will help to preserve and stabilize nearby established residential areas.	**Consistent but to a lesser extent than the Project.** Although this alternative would provide for a mix of uses at the Project site, this alternative would lessen the amount of development and would therefore provide fewer community-serving uses compared to the Project. Thus, this alternative would not encourage neighborhood preservation and stabilization to the extent the Project would.	**Consistent but to a lesser extent than the Project.** This alternative greatly minimizes the amount of neighborhood-serving facilities proposed within the LCRSP area and would therefore not serve to improve adjacent established residential neighborhoods to the extent the Project would.
Policy 2-19.1: Require that new construction, additions, renovations, and infill developments be sensitive to neighborhood context and building form and scale.	**Consistent.** Through the placement of compatible adjacent development, the LCRSP will generally respect the scale, massing, and landscape of nearby residential areas.	**Consistent but to a lesser extent than the Project.** As this alternative would not be developed as a master-planned development, this alternative could result in a less cohesive community that may be less	**Partially Inconsistent.** Though this alternative would be developed as a master planned community resulting in a cohesive, integrated whole, this alternative proposes to place a wide swath of residential

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		compatible with adjacent established residential neighborhoods.	development, with densities of 8 to 14 dwelling units per acre, adjacent to an existing single-family community, resulting in additional land use compatibility and aesthetic impacts on established residential areas that would not otherwise occur under the Project if the golf course were to remain. As such, at least with respect to Neighborhood II, this alternative would be partially inconsistent with this policy.
Policy 2-19.2: Encourage property maintenance by requiring new development to submit precise plans of design to maintain landscape areas that incorporate property maintenance standards from the City's property maintenance ordinance.	**Consistent.** Per the LCRSP, common areas shall be maintained by a permanent private master maintenance organization. Areas of responsibility shall include, but not be limited to, landscaped parkways, open space, parks, paseos, trails, mini parks, and private recreation areas. In certain residential areas of the Project, smaller associations may be formed to assume maintenance responsibility for common areas and facilities that benefit only residents in those areas. Potential private recreation centers, common open space areas, and potential private roadways exemplify facilities that would come under the jurisdiction of a neighborhood association.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize similar standards regarding the maintenance of common areas, including landscaping, it would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Thus, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** This alternative would utilize similar standards regarding the maintenance of common areas, including landscaping.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 2-19.3: Continue the graffiti suppression and removal program, and expand outreach programs that encourage neighborhoods to take an active role in the program as well.	**Consistent.** The LCRSP proposes the design of walls that would be "graffiti resistant" through carefully selecting materials and coatings and installation of plant materials along walls which will help to make walls less desirable to graffiti vandalism.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-19.4: Enforce and carry out code enforcement actions to advance proper maintenance of residential properties.	**Consistent.** The project will comply with all applicable code requirements regarding proper maintenance of residential properties.	**Consistent to the same extent as the Project.** This alternative will comply with all applicable code requirements regarding proper maintenance of residential properties.	**Consistent to the same extent as the Project.** This alternative will comply with all applicable code requirements regarding proper maintenance of residential properties.
Policy 2-19.5: Integrate residential developments with their built surroundings, and encourage a strong relationship between dwelling and the street.	**Consistent.** Through the placement of compatible adjacent development, the LCRSP will serve to integrate adjacent uses with the proposed development. In addition, entrances for multi-family and attached homes will generally front onto the adjoining roadways so as to create an appealing street scene, rather than having the rear of the units face the major streets.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-planned development, this alternative could result in a less cohesive community that may be less compatible with adjacent residential areas. However, this alternative would implement the design standards of the LCRSP regarding entrances for multi-family and attached homes.	**Partially Inconsistent.** Though this alternative would be developed as a master planned community resulting in a cohesive, integrated whole and use many similar design standards as the Project, this alternative proposes to place a wide swath of residential development, with densities of 8-14 dwelling units per acre, adjacent to an existing single-family community, resulting in additional land use compatibility and aesthetic impacts on established residential areas that would not otherwise occur under the Project if the golf course were to remain. As such, at least with respect to Neighborhood II, this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
			alternative would be partially inconsistent with this policy.
Policy 2-19.6: Communicate the single-unit residential function of a building by encouraging the design of visually appealing residential dwellings that feature varied facades and pleasing compositions. **Goal 2-20:** Require high-quality multi-unit design, landscaping, and architecture. **Policy 2-20.1:** Require multi-unit buildings design to be visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim and roof shape. **Policy 2-20.2:** Do not allow box-like forms with large, unvaried roofs by using a variety of building forms and roof shapes by creating clusters of units, variations in height, setback, and roof shape. **Policy 2-20.3:** Require use of porches, stairs, railings, fascia boards, and trim to enhance	**Consistent.** The LCRSP would regulate the design of proposed development to ensure the creation of a high quality community. A variety of architectural styles would be permitted, provided that the buildings are articulated with variations in doorways, windows, rooflines, facades, and trim. Dwelling units will be constructed of a variety of materials, including local stone used as accent treatment on some of the buildings. The neighborhoods will be designed so that each will have a unique identity and individual character. Specifically, each neighborhood will have its own landscape palette, as well as design elements and features, to create an identifiable street scene. Entrances for multi-family and attached homes will generally front onto the adjoining roadways so as to create an appealing street scene, rather than having the rear of the units face the major streets. Residents should have direct views of the street and outdoor living space to enhance the sense of safety and community. In addition, the Project would incorporate architectural elements such as front stoops and porches. The project	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural standards as the Project, it would be consistent to the same extent as the Project

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
multi-unit buildings' character. **Policy 2-20.4:** Provide for multi-unit buildings to relate to the street and be located to reinforce street frontages. **Policy 2-20.5:** Emphasize private, ground-level entries to individual units so that primary building entries are prominent and visible. **Policy 2-20.6:** Require pedestrian accessibility to adjacent uses with paseos, gates, pedestrian walkways, crossings, and sidewalks.	would also introduce continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks for pedestrian connectivity. Through these connections, the Project would encourage street activity, promote walking, and allow convenient access to parks, schools, and local shopping.		
Policy 2-20.7: Require parking lots to be located at the rear or side of a site to allow a majority of dwelling units to front on the street.	**Consistent.** The LCRSP complies with City requirements for screening of parking lots. In addition, entrances for multi-family and attached homes will generally front onto the adjoining roadways.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-20.8: Encourage that each unit have some form of	**Consistent.** As part of the development of residential uses, the	**Consistent but to a lesser extent than the Project.** This	**Consistent to the same extent as the Project.** As this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
useful private open space, such as a patio, porch, deck, balcony, yard, or shared entry porches or balconies.	Project proposes to incorporate architectural elements such as front stoops and porches.	alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	alternative would utilize many similar architectural standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-21: Ensure high-quality planned developments in Rialto.	**Consistent.** Implementation of the LCRSP would result in a high quality residential and commercial neighborhood. Specifically, the neighborhoods will be designed so that each will have a unique identity and individual character. Each neighborhood will have its own landscape palette, as well as design elements and features, to create an identifiable street scene. In addition, the Project's architectural character seeks to reflect the design influenced by the historical precedents of development traditionally found throughout the City and the Inland Empire during the late 19th and early to mid 20th Centuries.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Though this alternative would utilize many similar architectural and design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, it would not be gated, would not provide any community or neighborhood monumentation or definition.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural and design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-21.1: Require the provision of landscape buffers, walls, additional setbacks, and	**Consistent.** Residential areas bordering Glen Helen Parkway, Clearwater Parkway, Lytle Creek	**Consistent to the same extent as the Project.** As this alternative would utilize many	**Consistent to the same extent as the Project.** As this alternative would utilize many

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
landscaped parking lots as buffers between commercial and/or industrial uses with residential land uses.	Road/Sierra Avenue, and Riverside Avenue will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and appropriate.	similar design standards as the Project, it would be consistent to the same extent as the Project.	similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-21.2: Require that the layout of units and/or buildings be staggered to maximize visual interest and individual identity.	**Consistent.** The LCRSP includes staggering of the layout of units and buildings to maximize visual interest and individual identity, provided, however, that consideration is given to maximizing efficiency of unit layout.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-21.3: Discourage rectangular building footprints that lack visual interest or articulation along street frontages, and encourage the arrangement of structures on the site to allow for adequate screening of parking and loading areas as well as alleys on all industrial and commercial sites.	**Consistent.** To the extent possible, buildings would be arranged to minimize the appearance of long, unbroken, rectangular axes, where feasible, without compromising the efficiency of the site design and layout. Landscaping will be used to visually "break up" long, straight axes. For smaller buildings, this may include clustering them together around a small plaza, green space, or other focal point. As part of the LCRSP, employee parking and loading zones would be located further from the front of the building or on the side or rear of the buildings, and would be attractively screened from public streets with landscaping or other site design elements.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-21.4: Encourage creative site planning, making	**Consistent.** The LCRSP will include a variety of innovative structures,	**Consistent but to a lesser extent than the Project.**	**Consistent but to a lesser extent than the Project.**

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
use of patio homes, zero lot line units, planned unit "cluster" development, attached townhouse products, and auto courts. **Policy 2-21.5:** Encourage the clustering of residential units which provide semi-private common areas, maximize views, and provide passive open space and recreation uses within multi-unit developments.	including, but not limited to, patio homes, zero lot line units, cluster homes, attached townhouse, garden courts, motorcourts, maisonettes, and alley-loaded designs. Furthermore, the LCRSP promotes the clustering of residential units within proposed multi-family developments which would provide semiprivate common areas, maximize views, and provide passive open space and recreation uses.	Although this alternative would utilize many similar design standards as the Project, as noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community. Therefore, this alternative would not provide for passive open space and recreation uses to the extent the Project would.	Although this alternative would utilize many similar design standards as the Project, this alternative would minimize the amount of passive open space and recreational uses within the Project site.
Policy 2-21.6: Encourage developments to incorporate meandering greenbelts into subdivision projects, particularly along trails, collector streets, secondary streets, and major highways, protected environmental areas, or other special features. Bicycle and pedestrian trails should be connected with similar features in neighboring projects so that upon completion newer neighborhoods will be linked at the pedestrian level.	**Consistent.** Under the Project, approximately 908 acres of open space and an additional 328.8 acres of recreational uses would be created. In addition, individual planning areas will be interconnected through street and alley connections and via greenbelts and trails. Bicycle and pedestrian trails will connect with similar features in nearby neighboring projects so that, upon completion, the neighborhoods within the Project site will link with the existing off-site neighborhoods at the pedestrian level.	**Consistent but to a lesser extent than the Project.** This alternative includes approximately 301.4 acres dedicated to open space/ recreation and 12 acres as open space/joint use. However, as noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks	**Consistent but to a lesser extent than the Project.** This alternative would include approximately 61.4 acres dedicated to open space/ recreation and 5.1 acres for open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide a Paseo Park with active recreational uses.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		dedicated to the community.	
Policy 2-21.7: Require parkways to be placed on the outside of the public sidewalk immediately adjoining the curb to provide shade for pedestrians, and provide a canopy of trees to be either uniformly spaced or informally grouped.	**Consistent.** The project would provide continuous parkways along streets, uniform street trees on each street, and pocket parks to provide shade for pedestrians.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-21.8: Require that new residential subdivisions adjacent to secondary or major highways be oriented inward and provided with buffers to reduce exposure to traffic and noise.	**Consistent.** Residential areas bordering Glen Helen Parkway, Clearwater Parkway, Lytle Creek Road/Sierra Avenue, and Riverside Avenue will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and appropriate.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-22: Promote commercial and/or industrial development that is well designed, people-oriented, environmentally sustainable, sensitive to the needs of the visitor or resident, and functionally efficient for its purpose.	**Consistent.** Implementation of the LCRSP would result in a high quality residential and commercial neighborhood. In addition, the Project will be designed to promote social connectivity. Specifically, homes will be designed to have a strong relationship to the street so that residents have direct views of the street and outdoor living space to enhance the sense of safety and community. In addition, through the provision of the commercial and education uses, the Project would	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar design standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	provide employment opportunities and places for residents and visitors to shop and dine. Furthermore, the Project would provide physical linkages between land uses that promote walking and bicycling and provide alternatives to automobile use. The project would also encourage compact development that concentrates residential areas close to public amenities such as schools, parks, retail, golf, recreation centers, etc. In addition, development within the LCRSP area will be designed and implemented so as to exceed 2010 Title 24 standards by at least 15 percent.		
Policy 2-22.1: Require that developments incorporate varied planes and textures and variety in window and door treatments on building façades. **Policy 2-22.2:** Encourage architecture which disaggregates massive buildings into smaller parts with greater human scale.	**Consistent.** To the extent feasible, large commercial buildings would be visually broken up into smaller components by changes in color, texture, rooflines, window and door spacing, or massing. In addition, landscaping and vertical trees will also help to break up building massing.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar architectural standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar architectural standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-22.3: Require that landscape plantings be incorporated into commercial	**Consistent.** The proposed commercial and industrial development will incorporate	**Consistent to the same extent as the Project.** As this alternative would utilize many	**Consistent to the same extent as the Project.** As this alternative would utilize many

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
and industrial projects to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.	enhanced landscape planting to define and emphasize entrances, including areas situated along the front of retail buildings, facing a parking lot.	similar design standards as the Project, it would be consistent to the same extent as the Project.	similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-22.4: Require all major commercial developments to incorporate theme elements to create a distinct identity, foster individuality, and provide gathering opportunities.	**Consistent.** The proposed commercial development will include, but may not be limited to, outdoor cafes, gateways, kiosks, flag courts, trellises and arbors, bell towers, theme towers, galleries, patios and plazas, water elements, booths, outdoor markets, colonnades, arcades, and clerestories intended to distinguish the development from other developments, foster individuality, and promote gathering opportunities.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many similar design standards as the Project, this alternative would be consistent, but to a lesser extent than the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-22.5: Require developments to provide pedestrian and vehicle connections and pathways between parking lots at the rear and front of buildings.	**Consistent.** Larger commercial projects of ten acres or larger in size will incorporate direct walkways, where feasible, that cross the parking lot(s) and connect the buildings with the adjacent streets. Smaller commercial projects will include sidewalks and walkways, where feasible. Parking lots at the rear of a commercial development would not be isolated from the fronts of buildings. Commercial developments would provide either mid-building pedestrian access or fully treated rear	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	entrances.		
Policy 2-22.6: Require delivery areas to be separated from pedestrian areas.	**Consistent.** Delivery areas will be separated from pedestrian areas.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-22.7: Require outdoor storage areas, where permitted, to be screened from public view.	**Consistent.** Outdoor storage areas will be screened from the public view with a combination of block walls and landscaping.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-22.8: Insist that full architectural treatments and details be provided on all facades visible to the street of development projects.	**Consistent.** As previously described, buildings visible from the public right-of-way would be designed with articulated elevations (e.g., elevations with doors, windows, porches, balconies, dormers, trim and mouldings, roofline variations, or other architectural features).	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-23: Minimize the visual impact of parking lots.	**Consistent.** The LCRSP includes minimizing the visual impacts associated with commercial parking lots by using a variety of techniques, including, but not limited to depression of parking lot grade, wherever feasible, to reduce the visual impact of automobiles when seen from the street; development of screen walls and landscaped buffers at sufficient	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	height to conceal car grillwork and nuisance headlights into the street; parking lot design which breaks up parking areas with landscaped belts, thereby reducing the massive and unbroken appearance of paved surfaces; or continuous connection of planters rather than isolated tree wells and planters separated by wide expanses of paving.		
Policy 2-23.1: Require mature trees and landscaping in off-street parking areas to make them more inviting and aesthetically appealing, and to provide sufficient shading to reduce heat.	**Consistent.** Where feasible, parking lot design would incorporate trees planted to provide substantial shade. Parking lot trees will have a minimum box size of a 24" box and canopy to provide substantial coverage of paved areas.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-23.2: Encourage the inclusion of textured paving along pedestrian walkways and under building canopies.	**Consistent.** Pedestrian walkways including, but not necessarily limited to, those directly under building canopies, will be enhanced by one or more of the following techniques: interlocking or textured paving, aggregate or colored concrete, broom finished concrete or other decorative finish, turf block walls, theme plantings, trees plantings, canopies, bollards and kiosks, benches, seat walls, pavilions or gazebos, and/or trellises and arbors planted with flowering vines. Where pedestrian crossings are provided, curbs may be pinched to shorten the crossing	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	distance required. Additional pedestrian protections, including bollards and defensible space landscape treatment may be required to ensure pedestrian safety.		
Policy 2-23.3: Require use of drainage improvements designed, with native vegetation where possible, to retain or detain water runoff and minimize pollutants into drainage system.	**Consistent.** The proposed Grand Paseo, a 70 to 110-foot-wide non-vehicular greenbelt, would serve as a landscaped drainage corridor to accommodate project stormwater flows. In addition, portions of the Grand Paseo will be designed to function as a large bioswale that will naturally filter out chemicals and other potential pollutants as the water flows through the system.	**Consistent but to a lesser extent than the Project.** As this alternative would not be developed as a master-planned community, necessary infrastructure improvements would be developed in a more piecemeal fashion rather than in conjunction with development. In addition, though this alternative would provide a redesigned golf course and green space areas, which would serve to infiltrate water runoff, this alternative would not provide for natural drainage improvements to the extent the Project would.	**Consistent but to a lesser extent than the Project.** This alternative would provide for a Paseo Park, which, similar to the Project, in addition to providing recreational opportunities, may be utilized as a drainage corridor. Nonetheless, as this alternative greatly reduces natural drainage areas such as the golf course, this alternative would not support this policy to the extent the Project would.
Open Space and Recreation			
Goal 2-24: Take advantage of opportunities to increase and enhance open spaces throughout Rialto.	**Consistent.** The project includes approximately 328.8 acres of recreational open space, consisting of a variety of recreational types and features, including an enhanced public 18-hole golf course, neighborhood parks, a private active-adult community center and private recreational centers, a linear "Grand	**Consistent but to a lesser extent than the Project.** This alternative includes preservation of 596.6 acres of listed species habitat, 330.3 acres of non-listed species habitat, 44.4 acres of listed species habitat (within 100 feet of levee), and 84.6 acres of non-listed species habitat (within	**Consistent to the same extent as the Project.** This alternative includes preservation of 1,105.7 acres of listed species habitat, 399.8 acres of non-listed species habitat, 25.6 acres of listed species habitat (within 100 feet of levee), 90.1 acres of non-listed species habitat (within 100 feet of

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Paseo," and trail system. An extensive greenbelt system will link the various neighborhoods with one another and with schools, neighborhood parks, and the Project's recreation centers.	100 feet of levee). This alternative also includes approximately 301.4 acres dedicated to open space/ recreation and 12 acres as open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, though the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, the remainder would only provide green space areas (with paths and benches), with no formal active recreation parks dedicated to the community.	levee), and 19.5 acres of sensitive riparian community habitat. This alternative also includes approximately 61.4 acres dedicated to open space/ recreation and 5.1 acres for open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide a Paseo Park with active recreational uses.
Policy 2-24.1: Identify and explore opportunities for acquisition of land in the Lytle Creek floodplain and fault-impacted areas for use as open space, parkland, or recreational areas.	**Consistent.** The project includes preservation of at least 829.2 acres of natural open space, including along portions of the Lytle Creek floodplain and fault-impacted areas.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative includes preservation of natural open spaces areas along portions of the Lytle Creek floodplain and fault-impacted areas.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative includes preservation of natural open spaces areas along portions of the Lytle Creek floodplain and fault-impacted areas.
Policy 2-26.1: Require that private open space be integrated into new development by providing green spaces and landscaped plazas between buildings.	**Consistent.** Landscaping will be used to visually "break up" long, straight axes of buildings. In addition, smaller buildings may be clustered together around a small plaza, green space, or other focal point.	**Consistent but to a lesser extent than the Project.** This alternative would not be a master-planned community, and thus this alternative would be developed in more piecemeal fashion with less control over consistent design throughout. As such, though this alternative would utilize many	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		similar design standards as the Project, this alternative would not support this policy to the extent the Project would.	
Policy 2-26.2: Enhance street corridors by incorporating small green areas, extensive landscaping, and street trees.	**Consistent.** The project would introduce continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks for pedestrian connectivity.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar streetscape design standards as the Project, as indicated in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide area standard interior streets. Thus, this alternative would be consistent with this policy, but to a lesser extent than the Project.
Goal 2-27: Provide a variety of park facilities that meet the diverse needs and interest of the community.	**Consistent.** Under the LCRSP, 908.0 acres of open space and an additional 328.8 acres of recreational uses would be created. The project would include an approximately 23-acre Grand Paseo Park environed with active recreational uses, four recreation centers, a golf course, a 35-acre sports park with athletic fields and multiple playgrounds, a 5.1-acre joint-use park adjacent to a new elementary school, and a 12.1-acre joint-use park adjacent to a new K–8 school.	**Inconsistent.** This alternative would include approximately 301.4 acres dedicated to open space/ recreation and 12 acres as open space/joint use. However, as noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks	**Consistent but to a lesser extent than the Project.** This alternative would include approximately 61.4 acres dedicated to open space/ recreation and 5.1 acres for open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide a Paseo Park with active recreational uses.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		dedicated to the community.	
Policy 2-27.2: Plan for and designate adequate funding to maintain new and existing parks and facilities.	**Consistent.** Proposed parks and recreational facilities are planned to be privately owned and maintained by a master homeowners association or other entity acceptable to the City of Rialto.	**Inconsistent.** As noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community. In addition, this alternative would not be a master-planned community, and thus this alternative would not include a master homeowners association.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative includes a master homeowners association to maintain proposed parks and recreational facilities.
Policy 2-27.3: Work with the Rialto Unified School District to provide joint-use facilities in areas where park and recreation facility deficits exist. Mitigate issues associated with school open space, such as vandalism, wear and tear, maintenance, and school expansion.	**Consistent.** The project would include a 5.1-acre joint-use park adjacent to a new elementary school and a 12.1-acre joint-use park adjacent to a new K–8 school.	**Consistent to the same extent as the Project.** The alternative would include a 12-acre joint-use park adjacent to a new K–8 school.	**Consistent to the same extent as the Project.** The alternative would include a 5.1-acre joint-use park adjacent to a new elementary school.
Conservation			
Goal 2-28: Protect and enhance Rialto's surface waters	**Consistent.** The LCRSP incorporates a system of bioswales and, as required by law, would	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
and groundwater basins.	implement a Stormwater Pollution Prevention Plan (SWPPP) during construction and a Standard Urban Stormwater Mitigation Plan (SUSMP) throughout the operational life of the Project that would incorporate Best Management Practices (BMPs) that would control runoff and water quality to protect the area's surface waters and groundwater basins.	employ BMPs and comply with applicable regulations governing runoff and water quality.	employ BMPs and comply with applicable regulations governing runoff and water quality.
Policy 2-28.2: Maximize recharge of local groundwater basins by minimizing impervious surfaces and protecting open space recharge areas. **Policy 2-28.3:** Design sidewalks, roads, and driveways to minimize impervious surfaces; provide flood control channels with permeable bottoms to help restore groundwater aquifers.	**Consistent.** The project provides adequate open space pursuant to the standards established in the Parks and Recreation Element of the City General Plan and the City's zoning ordinance as a measure to minimize impermeable surfaces. In addition, the Project proposes the landscaped Grand Paseo that will function for both recreational and stormwater purposes. Likewise, the proposed golf course will handle stormwater flows, while accommodating golfing as a recreational use. By creating a system of natural bioswales and incorporating a variety of BMPs, the Project will help to protect and enhance Rialto's groundwater basins.	**Consistent to the same extent as the Project.** Although this alternative does not include development of the Grand Paseo, this alternative includes the golf course and minimization of impervious surfaces through the preservation of additional open space areas. As such, this alternative would support this policy to the same extent as the Project.	**Consistent to the same extent as the Project.** This alternative would minimize impervious surfaces through the preservation of additional open space areas. In addition, this alternative would include a Paseo Park which, similar to the Project, may also be used for stormwater purposes. As such, this alternative would support this policy to the same extent as the Project.
Policy 2-28.4: Prohibit the use of septic tanks, and where necessary, assist in the financing of sewer connections	**Consistent.** The project does not propose the use of septic tanks. In addition, the Applicant would contribute its fair share of impact fees to the City of Rialto for improvements	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would not include the use of septic tanks. In addition, this alternative would	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would not include the use of septic tanks. In addition, this alternative would

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
and hookups.	to the City of Rialto Wastewater Treatment Plant.	pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 2-28.5: Apply methodologies and assign responsibility to protect the quality of groundwater from pollution by landfills and industrial uses.	**Consistent.** The LCRSP incorporates a system of bioswales and utilizes BMPs to protect and enhance the area's surface waters and groundwater basins.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.
Policy 2-28.6: Improve surface drainage facilities, and continue tertiary sewage treatment to protect the Santa Ana River watershed as a potable water source.	**Consistent.** As part of the Project's SWPPP and SUSMP, the Project would incorporate source control BMPs to avoid adversely affecting the performance of existing drainage facilities. In addition, the Project includes development of appropriate drainage facilities in conjunction with development. The project also proposes the landscaped Grand Paseo that will function for both recreational and stormwater purposes. Likewise, the proposed golf course will handle stormwater flows, while accommodating golfing as a recreational use. The intent is to provide "green" stormwater swales and drainageways throughout the Project site in lieu of using pipes for stormwater flows. By providing for a system of natural bioswales and incorporating a variety of BMPs, the Project will help to protect the area's	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would be required to develop a SWPPP and SUSMP that would incorporate source control BMPs to avoid adversely affecting the performance of existing drainage facilities. In addition, this alternative would provide a redesigned golf course and green space areas, which would serve to infiltrate water runoff.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would be required to develop a SWPPP and SUSMP that would incorporate source control BMPs to avoid adversely affecting the performance of existing drainage facilities. In addition, this alternative would provide for a Paseo Park, which, similar to the Project, in addition to providing recreational opportunities, may be utilized as a drainage corridor.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	surface waters.		
Policy 2-28.7: Continue to maintain Lytle Creek as a water source.	**Consistent.** The LCRSP incorporates a system of bioswales and utilizes BMPs to protect and enhance the area's surface waters and groundwater basins.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.
Policy 2-28.8: Reduce spreading of high nitrate fertilizers, herbicides, pesticides, and other chemicals in City landscaping that can contaminate groundwater; encourage the public to reduce the use of chemicals in maintenance of landscaping.	**Consistent.** As a recommended source control BMP, Mitigation Measure 4-2 includes resident education and participation to be implemented to manage pollutants that contribute to biological oxygen demand. For example, residents shall be encouraged to keep pets on leashes and to remove feces in order to limit organic material in storm water runoff. Residents shall be further encouraged to irrigate their properties at certain times of the day in order to limit nuisance flow runoff carrying pesticides and other organic material.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will employ BMPs and comply with applicable regulations governing runoff and water quality.
Goal 2-29: Conserve water resources.	**Consistent.** The LCRSP has been designed to accommodate existing ground water infiltration ponds so that ground water aquifers can continue to be used as a source of future water supplies.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 2-29.1: Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.	**Consistent.** The project will help to conserve water resources by incorporating irrigation timers and automatic sprinklers, drip irrigation (where feasible), low flush toilets, low water use shower heads, and other water conservation measures as feasible.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-29.2: Use reclaimed water as available for irrigation of City parks, median strips, and other public areas, and encourage its use in industrial applications, large turf and expansive landscaped areas, golf courses, mining, and other uses where potable quality of water is not necessary to its application.	**Consistent.** The City, the Applicant, and local water districts are working together to provide for efficient reuse of wastewater (whether on the Project site or at off-site areas) through use of recycled water from the Oliver P. Roemer Water Filtration Plant and possible construction of a new scalping plant that may provide an additional source of reclaimed water for use either on the Project site or elsewhere in the City.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-29.3: Educate the community about the importance of water conserving techniques and avoiding wasteful water habits.	**Consistent.** As part of the Project design features, education on energy efficiency, water conservation, and waste recycling services would be provided to the community.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-30: Incorporate green building and other sustainable building practices into development projects. **Policy 2.30.1:** Explore and	**Consistent.** The LCRSP integrates green building strategies, such as those identified in the United States Green Building Council's LEED, Energy Star Homes, Green Point Rated Homes, and the California	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
adopt the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar in both private and public projects.	Green Building Program, into its proposed design guidelines. Specifically, the Project would provide physical linkages between land uses that promote walking and bicycling and provide alternatives to automobile use. The project would also encourage compact development that concentrates residential areas close to public amenities such as schools, parks, retail, golf, recreation centers, etc. In addition, the Project would create an interconnected street network that has a high level of connections with cul-de-sacs that include pedestrian or bicycle through connections. Furthermore, the Project would minimize the amount of paved areas for roads, parking, and patios, particularly in residential areas, where feasible, or consider using porous or permeable pavement.	planned development and would develop infrastructure and facilities in a more piecemeal fashion rather than in conjunction with development. In addition, as noted in the HM2 Marketing Development report provided in Appendix V-E, the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community, which would serve to promote walking and use of alternative modes of transportation.	the same extent as the Project.
Policy 2-30.2: Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.	**Consistent.** Development within the LCRSP area will be designed and implemented so as to exceed 2010 Title 24 standards by at least 15 percent.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-30.3: Support sustainable building practices that integrate building materials and methods that promote	**Consistent.** The project would be designed to support sustainable building practices by integrating environmentally-friendly construction	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment.	practices. In addition, as previously described, the Project would provide physical linkages between land uses that promote walking and bicycling and provide alternatives to automobile use. The project would also encourage compact development that concentrates residential areas close to public amenities such as schools, parks, retail, golf, recreation centers, etc.	Project, this alternative would not be developed as a master-planned development and would develop infrastructure and facilities in a more piecemeal fashion. In addition, as noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative is not considered fiscally prudent. Furthermore, the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community.	Project, as noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative is not considered fiscally prudent. In addition, despite the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school, the alternative would not provide a golf course, an associated clubhouse, or a sports park as would the Project. Thus, this alternative would not support this policy to the extent the Project would.
Goal 2-31: Conserve energy resources. **Policy 2-31.1:** Require the incorporation of energy conservation features into the design of all new construction and site development activities.	**Consistent.** As previously indicated, the Project would be designed and implemented to exceed 2010 Title 24 energy reduction standards by at least 15 percent.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-32.1: Allow the phasing of planned land uses on large mineral resource sites on that part of the site on which mining is not anticipated, or on that part of the site which mining	**Consistent.** Project build-out of the LCRSP area will be conducted in phases. Though a portion of the LCRSP area is designated MRZ-2, the DEIR concluded that the Project would not result in a loss of availability	**Consistent to the same extent as the Project.** As with the Project, implementation of this alternative would occur in phases. In addition, as this alternative is also proposed for the LCRSP	**Consistent to the same extent as the Project.** As with the Project, implementation of this alternative would occur in phases. In addition, as this alternative is also proposed for the LCRSP

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
is completed and reclamation has been established.	of a known mineral resource. In addition, the "Evaluation for Potential Loss of Mineral Resources Resulting from the Development of Lytle Creek Ranch, City of Rialto" (Appendix III-B to the DEIR) assessed the potential loss of mineral resources resulting from the Project and concluded that feasibility of future mining on the Project site is highly unlikely.	area, the feasibility of future mining on the Project site is highly unlikely.	area, the feasibility of future mining on the Project site is highly unlikely.
Policy 2-34.1: Develop programs that promote reuse and recycling throughout the community. **Policy 2-34.2:** Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills.	**Consistent.** The LCRSP includes a number of Applicant-proposed measures promoting source reduction and recycling, including the selection of sustainable construction materials and products, use of recycled-content products, use of dimensional planning and other material efficiency strategies, use of recycled base and asphalt, and requiring plans for managing materials through deconstruction. In addition, the LCRSP stipulates design with adequate space to facilitate recycling collection and incorporation of a solid waste management program that prevents waste generation. Construction practices will also incorporate the use of construction materials that contain reused and recycled content.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-34.3: Encourage the maximum diversion from landfills	**Consistent.** Many of the materials contained in the construction waste	**Consistent to the same extent as the Project.** As this	**Consistent to the same extent as the Project.** As this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
of construction and demolition materials through recycling and reuse programs.	stream, such as wood, sheetrock, cardboard, and metals, are economically recyclable. As such, in order to reduce costs, builders and other construction contractors typically promote efforts to salvage these materials during construction. Since the Applicant and other building contractors have an economic interest to reduce construction costs, maximum feasible recycling efforts will occur absent governmental intervention. Should the City subsequently adopt a C&D waste reduction ordinance, individual development projects undertaken within the proposed LCRSP boundaries will be subject to regulatory compliance.	alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City. **Policy 2-35.2:** Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.	**Consistent.** The project would provide physical linkages between land uses that promote walking and bicycling and provide alternatives to automobile use. In addition, the Project would encourage compact development that concentrates residential areas close to public amenities such as schools, parks, retail, golf, recreation centers, etc. The project would also create an interconnected street network that has a high level of connections with cul-de-sacs that include pedestrian or	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-planned development and would develop infrastructure and facilities in a more piecemeal fashion. Thus providing a less cohesive development. In addition, although the development would be constructed adjacent to Riverside Avenue, in close proximity to	**Consistent to the same extent as the Project.** In addition to utilizing many similar design standards as the Project, this alternative includes the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school and in close proximity to public transportation along Riverside Avenue. Similar to the Project, these uses would promote walking and use of alternative modes of

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	bicycle through connections.	public transportation, the majority of the open space/recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community. Thus, this alternative would not promote walking or encourage use of alternative modes of transportation to the extent the Project would.	transportation.
Policy 2-35.3: Establish a balanced land use pattern, and facilitate developments that provide jobs for City residents in order to reduce vehicle trips citywide.	**Consistent.** The project would provide for a variety of uses including residential, commercial, institutional, open space, and recreational uses. Through the provision of commercial and institutional uses adjacent to residential uses, the Project would provide employment opportunities to nearby residents and would serve to reduce vehicle trips. In addition, project development would occur in close proximity to public transportation available along Riverside Avenue.	**Consistent but to a lesser extent than the Project.** Although this alternative would provide for a mix of uses at the Project site, less development would occur under this alternative, and accordingly, this alternative would provide less community-serving uses and jobs compared to the Project. In addition, despite the provision of a golf course and 12-acre joint-use park adjacent to the new K–8 school, the alternative would not be a master-planned community, and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design	**Consistent but to a lesser extent than the Project.** Though this alternative would provide for a mix of uses at the Project site, this alternative greatly minimizes the amount of neighborhood-serving facilities and jobs. In addition, despite the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school, the alternative would not provide a golf course, an associated clubhouse, or a sports park as would the Project. As such, this alternative would not support this policy to the extent the Project would.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
		throughout. Furthermore, the alternative would not provide any formal active recreational parks dedicated to the community as would the Project. Thus, this alternative would not support this policy to the extent the Project would.	
Policy 2-35.4: Require new development and significant redevelopment proposals to incorporate sufficient design and operational controls to prevent release of noxious odors beyond the limits of the development site.	**Consistent.** The proposed LCRSP includes provisions for a "Precise Plan of Design (Design Review)" which is designed "to promote an orderly and aesthetically pleasing environment within the City of Rialto and to ensure that development complies with all City ordinances and regulations." Through that process, issues of odor-intrusion and the selection of appropriate design techniques can be addressed on a site-specific basis rather than a general prohibition with regard to specific land uses that may be odor generators. Implementation of the proposed design-review process will help to ensure that potential odor nuisance impacts are reduced to the maximum extent feasible.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 2-36: Reduce the amount of fugitive dust released into the atmosphere. **Policy 2-36.1:** Put conditions	**Consistent.** As indicated in Section 4.7, Air Quality, of the DEIR, Mitigation Measure 7-6 would be implemented to ensure that grading would be required to encompass no	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
on discretionary permits to require fugitive dust controls. **Policy 2-36.2:** Support programs and policies of the South Coast Air Quality Management District regarding restrictions on grading operations at construction projects.	more than 10 acres on a daily basis within 1,000 feet of any residential units. In addition, under SCAQMD policies and procedures, the construction site would qualify as a large site as there would be more than 50 acres of disturbed surface area. In accordance therewith, the construction contractor must submit a "large operation notification" (Form 403) to the SCAQMD and implement those applicable actions specified under Rule 403, including maintaining minimum required soil moisture content and various other dust suppression techniques.	be consistent to the same extent as the Project.	be consistent to the same extent as the Project.
Goal 2-38: Mitigate against climate change.	**Consistent.** Issues of greenhouse gas emissions and climate change have been addressed as part of the Project's CEQA analysis. That analysis determined that the Project would result in less-than-significant climate change impacts.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 2-38.3: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).	**Consistent.** The project includes a network of often interconnecting trails, bike lanes, parkways, and paseos that will be accessible to pedestrians and bicyclists. Bus transportation is currently provided by Omnitrans along portions of Riverside Avenue. Within the proposed development, bus stops will	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-planned development and would develop infrastructure and facilities in a more piecemeal fashion. Thus providing a less	**Consistent to the same extent as the Project.** In addition to utilizing many similar design standards as the Project, this alternative includes the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school and in close proximity to public transportation

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	be provided along the length of Riverside Avenue. Bus stops will consist of benches and areas allowing for the posting of bus routes and schedules. Commuter and passenger rail service is available from the Rialto Commuter Rail Station. Convenient access from residential areas to non-residential development, such as that proposed near the intersection of Riverside and Sierra Avenues, will be available by way of the Project's internal trail and roadway systems. The proposed shopping center will likely contain a supermarket and other neighborhood retail and service-oriented commercial uses, including both fast-food and sit-down restaurants. Residents will be able to walk or bicycle to this retail center or drive to the center, via the internal roadway network, without placing additional demands on off-site roads. In addition, as a recommended mitigation measure, a park-and-ride facility is proposed near the intersection of Sierra Avenue and Riverside Avenue.	cohesive development. In addition, although the development would be constructed adjacent to Riverside Avenue, in close proximity to public transportation, the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community. Thus, this alternative would not promote walking or encourage use of alternative modes of transportation to the extent the Project would.	along Riverside Avenue. Similar to the Project, these uses would promote walking and use of alternative modes of transportation.
Goal 2-39: Conserve and enhance Rialto's biological resources.	**Consistent.** The project would include 829.2 acres of natural (undisturbed) open space, including 612.5 acres within and adjacent to Lytle Creek, San Bernardino National Forest, and Glen Helen Regional	**Consistent to the same extent as the Project.** Under the alternative natural habitat occupied by the federally endangered San Bernardino kangaroo rat and the federally-	**Consistent to the same extent as the Project.** Under the alternative development in areas identified as Riversidian alluvial fan sage scrub, a natural community that supports the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Park, and provide mitigation acreage for sensitive species (52.2 acres has already been set aside in conjunction with the Lytle Creek North Planned Development (LCNPD) Project, 160.5 acres previously dedicated in connection with SBKR mitigation, and 4.0 acres dedicated for the completed West Valley Water District Reservoirs 7-3 and 7-4 along Lytle Creek Road).	listed least Bell's vireo would remain undeveloped, thus resulting in the protection of this resource. In total, this alternative would involve the preservation of 1,071 acres of natural (undisturbed) open space.	federally endangered San Bernardino kangaroo rat, would be minimized, thus resulting in the protection of this resource. In total, this alternative would involve the preservation of 1,640.7 acres of natural (undisturbed) open space.
Policy 2-39.1: Protect endangered, threatened, rare, and other special status habitat and wildlife species within and along Lytle Creek by working with the United States Wildlife Service and the California Department of Fish and Game to establish Natural Community Conservation Plans, Habitat Conservation Plans (HCP), or other established biological resource protection mechanisms within this sensitive area. **Policy 2-39.2:** Pursue open space, wildlife corridors, or conservation easements to protect sensitive species and their habitats.	**Consistent.** A comprehensive biological resources assessment and focused studies were undertaken to identify potential impacts to rare, threatened, or endangered species. As a result of these studies, a minimum of 829.2 acres will be preserved as natural (undisturbed) open space.	**Consistent to the same extent as the Project.** Under the alternative, natural habitat occupied by the federally endangered San Bernardino kangaroo rat and the federally-listed least Bell's vireo would remain undeveloped.	**Consistent to the same extent as the Project.** Under the alternative, development in areas identified as Riversidian alluvial fan sage scrub, a natural community that supports the federally endangered San Bernardino kangaroo rat, would be minimized, thus resulting in the protection of this resource.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Economic Development			
Goal 3-1: Strengthen and diversify the economic base and employment opportunities, and maintain a positive business climate.	**Consistent.** The project will help to strengthen and diversify the economic base and provide employment opportunities through the development of Village Center Commercial uses, which will include at least one major shopping center, as well as smaller area retail centers. This will provide important tax revenue to the City of Rialto, in addition to providing important services to the resident population. Moreover, as indicated in Section 2.5.6.1 of this analysis, the Project would be financially feasible and able to attract necessary capital to be implemented.	**Inconsistent.** As discussed in detail in Section 2.5.6.2 of this analysis, the alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent from a developer's standpoint. In addition, although this alternative would provide for a mix of uses at the Project site, less development would occur under this alternative, and accordingly, this alternative would therefore provide less community-serving uses compared to the Project. Furthermore, as this alternative would not be a master-planned community, infrastructure and amenities provided by the alternative would be developed in a more piecemeal fashion. Thus, this alternative would not be consistent with this goal.	**Inconsistent.** As discussed in detail in Section 2.5.6.3 of this analysis, this alternative was determined not to be financially feasible and thus cannot be considered fiscally prudent from a developer's standpoint. In addition, this alternative greatly minimizes the amount of neighborhood-serving facilities proposed within the LCRSP area and would therefore not support the economic base and provide employment opportunities to the extent the Project would. Thus, this alternative would not be consistent with this goal.
Goal 3-2: Improve historic commercial areas, including Downtown and major commercial corridors.	**Consistent.** The project proposes to develop a currently vacant area adjacent to Riverside Avenue between Interstate 15 and Linden Avenue. Specifically, as part of Neighborhood III, the Project would provide for a variety of uses fronting Riverside Avenue, including commercial, residential, open space,	**Consistent but to a lesser extent than the Project.** This alternative would minimize the development proposed within the LCRSP area and thus would reduce the variety of land uses proposed along Riverside Avenue.	**Consistent but to a lesser extent than the Project.** This alternative would minimize the development proposed within the LCRSP area and thus would reduce the variety of land uses proposed along Riverside Avenue.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	and educational uses.		
Policy 3-2.6: Improve the appearance and character along major commercial corridors through improved and uniform signage, themed landscape treatments, storefront improvements, and possible relocation of underutilized businesses.	**Consistent.** The project would improve Riverside Avenue to include a 14-foot-wide striped median, three travel lanes in each direction, a 24-foot-wide landscaped parkway containing a 5-foot-wide parkway-sidewalk adjacent to the Project site and a 13-foot-wide landscaped parkway with a 4.5-foot-wide parkway-adjacent sidewalk along the opposite side of the street. In addition, along the community's major thoroughfares, trees will be massed to create scenic streetscapes.	**Consistent but to a lesser extent than the Project.** Though this alternative would provide for the same improvements along Riverside Avenue and utilize many similar streetscape design standards as the Project, this alternative would not be implemented as a master-planned community and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Therefore, this alternative would not support this policy to the same extent the Project would.	**Consistent but to a lesser extent than the Project.** Although this alternative would provide for the same improvements along Riverside Avenue and utilize many similar streetscape design standards as the Project, this alternative would not provide a cohesive community design on a neighborhood by neighborhood level. As such, this alternative would not promote this policy to the same extent as the Project.
Infrastructure			
Goal 3-6: Require that all developed areas within Rialto are adequately served with essential public services and infrastructure.	**Consistent.** Consistent with the needs of the Project, new and expanded public services and facilities will be provided. In addition, the Project would pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 3-6.1: Coordinate all development proposals with other affected public entities to	**Consistent.** Coordination has and will continue to occur with all affected public agencies. The LCRSP provides	**Consistent to the same extent as the Project.** Similar to the Project, coordination will occur	**Consistent to the same extent as the Project.** Similar to the Project, coordination will occur

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
ensure the provision of adequate public facilities and infrastructure services.	adequate public facilities to serve the planned development.	with all affected public agencies regarding the provision of adequate public facilities and infrastructure services.	with all affected public agencies regarding the provision of adequate public facilities and infrastructure services.
Policy 3-6.2: Work with the school districts to ensure that local school facilities can support the pace of residential development and growth.	**Consistent.** The Rialto Unified School District, Fontana Unified School District, and San Bernardino Unified School District all serve the Project site. Coordination has and will continue to occur with each district. In addition, the Project identifies opportunities for two schools—elementary and elementary/middle schools—within the Project site and would pay its negotiated fair share of impact fees to provide for the mitigation of financial costs to the City and protect existing City levels of service.	**Consistent to the same extent as the Project.** Though this alternative proposes the development of only one school, coordination with each school district serving the Project site would occur. In addition, the Applicant would also pay its negotiated fair share of impact fees under this alternative.	**Consistent to the same extent as the Project.** Though this alternative proposes the development of only one school, coordination with each school district serving the Project site would occur. In addition, the Applicant would also pay its negotiated fair share of impact fees under this alternative.
Policy 3-6.3: Require an increasing level of public safety infrastructure and service capability tied to population increase and increasing service demand.	**Consistent.** Although the Project will not directly provide additional police personnel, the Project will increase property and sales tax revenues to the City which can be used to offset municipal costs for those services. In addition, the Project will pay its negotiated fair share of impact fees to provide for the mitigation of financial costs to the City and protect existing City levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 3-6.4: Complete infrastructure master plans for	**Consistent.** The LCRSP includes master plans to guide the	**Consistent but to a lesser extent than the Project.** This	**Consistent to the same extent as the Project.** As this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
sewer, water, and drainage.	development of drainage, water, and sewer infrastructure improvements within the LCRSP area.	alternative would not be implemented as a master-planned community and thus infrastructure and amenities provided by the alternative would be developed in more piecemeal fashion with less control over consistent design throughout. Therefore, this alternative would not support this policy to the same extent as the Project.	alternative would be developed as a master-planned community, it would be consistent to the same extent as the Project.
Water			
Policy 3-8.1: Require that all new development or expansion of existing facilities bear the cost of expanding the water system to handle the increased demands which they are expected to generate. **Policy 3-8.5:** Upgrade outdated and undersized water service facilities to prevent unnecessary system failures in the City's water system.	**Consistent.** As part of the LCRSP, the Applicant would contribute its fair-share cost of designing and constructing those water system improvements needed by and for the Project. All water systems and facilities will be designed and installed in accordance with the requirements of the West Valley Water District. These systems and facilities will be owned, operated, and serviced by the West Valley Water District.	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would pay its negotiated fair share of impact fees under this alternative.	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would pay its negotiated fair share of impact fees under this alternative.
Policy 3-8.6: Work with water agencies to aggressively recharge groundwater basins and prevent excessive water pumping when there are inadequate supplies. **Policy 3-8.7:** Develop new	**Consistent.** In order to augment and offset the lack of available reclaimed water within the Project area, as proposed, the Project's implementation would serve to assist in providing additional groundwater recharge within the Lytle Creek Basin.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project. In addition, this alternative would	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project. In addition, this alternative would

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
sources of water supply, including drilling additional water wells that are free from perchlorate, and expanding recycling water opportunities. **Policy 3-8.8:** Work with municipal water districts to explore new water conservation opportunities within Rialto. **Policy 3-8.9:** Conserve potable water and utilize reclaimed water for meeting landscaping and irrigation demands as much as possible. **Policy 3-8.10:** Support water conservation through requirements for landscaping with drought-tolerant plants and efficient irrigation for all new development and City projects.	Specifically, the Applicant is working with the City and local water districts to provide for efficient reuse of wastewater through use of recycled water from the Oliver P. Roemer Water Filtration Plant and possible construction of a new scalping plant that may provide an additional source of reclaimed water for use either on the Project site or elsewhere in the City. If this is implemented, then reuse water from the Oliver P. Roemer WTP would be used for groundwater recharge within the LCRSP site. In addition, by creating a system of natural bioswales and incorporating a variety of BMPs, the Project will help to protect and enhance Rialto's surface waters and groundwater basins. The project will also help to conserve water resources by incorporating drought-tolerant species, irrigation timers and automatic sprinklers, drip irrigation (where feasible), low flush toilets, low water use shower heads, and other water conservation measures, as feasible.	provide a redesigned golf course and green space areas, which would serve to infiltrate water runoff.	provide for a Paseo Park, which, similar to the Project, in addition to providing recreational opportunities, may be utilized as a drainage corridor.
Wastewater			
Goal 3-9: Upgrade and maintain an improved wastewater system with adequate plant efficiency and	**Consistent.** The Applicant would contribute its fair-share cost of designing and constructing those sewer system improvements needed	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would pay its negotiated fair share of impact	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would pay its negotiated fair share of impact

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
capacity to protect the health and safety of all Rialto residents, businesses, and institutions. **Policy 3-9.1:** Require that all new development or expansion of existing facilities bear the cost of expanding the wastewater disposal system to handle the increased loads which they are expected to generate.	by and for the proposed development. All sanitary sewer systems and facilities will be owned and operated by the City and will be designed and installed in accordance with the requirements and specifications of the City and/or San Bernardino County Special Districts Department. Wastewater from the Project will be conveyed by an on-site collection system and treated at either the existing 1.75-mgd Lytle Creek North Wastewater Recycling Plant or the City of Rialto Wastewater Treatment Plant.	fees under this alternative.	fees under this alternative.
Solid Waste and Recycling			
Goal 3-10: Minimize the volume of solid waste that enters local and regional landfills. **Policy 3-10.1:** Encourage additional recycling in all sectors of the community.	**Consistent.** Recycling centers will be provided in readily accessible areas within buildings for depositing, storage, and collection of non-hazardous materials for recycling.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 3-10.2: Encourage the recycling of construction and demolition materials in an effort to divert these items from entering landfills.	**Consistent.** Maximum feasible recycling efforts will occur absent governmental intervention. Should the City subsequently adopt a C&D waste reduction ordinance, individual development projects undertaken within the proposed LCRSP boundaries will be subject to regulatory compliance.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
Policy 3-10.4: Continue to educate the community regarding the benefits of solid waste diversion and recycling, and maintain programs that make it easy for all residents and businesses to work toward City waste reduction objectives.	**Consistent.** As part of the Project design features, education on energy efficiency, water conservation, and waste recycling services would be provided to the community.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Public Services and Facilities			
Goal 3-11: Provide community facilities that adequately support established programs, can accommodate future needs, and are accessible to all members of the community.	**Consistent.** The project includes approximately 328.8 acres of recreational open space, consisting of a variety of recreational types and features, including an enhanced public 18-hole golf course, neighborhood parks, a private active-adult community center and four private recreational centers, and a linear "Grand Paseo," and trail system. The golf course will include a new golf clubhouse with pro shop, locker rooms, offices, bar, restaurant, banquet facilities, tournament lawn, driving range, and cart storage barn. An extensive greenbelt system will link the various neighborhoods with one another and with schools, neighborhood parks, and the Project's recreation centers. It is anticipated that two recreation centers will include a community center building containing one or more meeting rooms, an exercise room, locker	**Consistent but to a lesser extent than the Project.** This alternative would include approximately 301.4 acres dedicated to open space/ recreation and 12 acres as open space/joint use. The majority if the open space/recreation acreage under this alternative would be devoted to an enhanced public 18-hole golf course. However, as noted in the HM2 Marketing Development report provided in Appendix V-E, the remainder of that acreage would only provide green space areas (with paths and benches), with no formal active recreation parks dedicated to the community. Accordingly, this alternative would not meet this goal to the same extent as the Project.	**Consistent but to a lesser extent than the Project.** This alternative would include approximately 61.4 acres dedicated to open space/ recreation and 5.1 acres for open space/joint use. As noted in the HM2 Marketing Development report provided in Appendix V-E, this alternative would provide a Paseo Park with active recreational uses. However, this alternative would not contain a redesigned and enhanced public 18-hole golf course. Accordingly, this alternative would not meet this goal to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	rooms, and comfort facilities. All recreation centers will contain a swimming pool and spa. The active-adult community center will also contain an internet room/library and a crafts room. The public neighborhood parks will provide for both active and passive uses, including sports fields, picnicking areas, playgrounds, and picnic shelters. In addition, an approximately 35.7-acre community park may also be developed. This land may be developed with a mixture of community and neighborhood park elements. Two additional areas are planned as "joint-use" school and park facilities, linking public park areas to proposed adjoining school sites. These joint-use areas are anticipated to contain athletic fields, playgrounds, and informal play areas which will be available to the general public when school is not in session.		
Policy 3-11.1: Allocate resources for the maintenance and operations of City facilities; explore alternative funding options for maintenance and operational costs of new facilities.	**Consistent.** The project will increase property and sales tax revenues to the City which can be used to offset costs for the maintenance and operations of City facilities. In addition, proposed private parks and recreational facilities would be maintained by a master homeowners association or other	**Consistent but to a lesser extent than the Project.** As this alternative would reduce the amount of uses proposed for the Project site, it would not provide for property and sales tax revenues to the extent the Project would. In addition, as this alternative would not be	**Consistent but to a lesser extent than the Project.** Although this alternative would greatly reduce the amount of uses proposed for the Project site and thus reduce the opportunity for property and sales tax revenues, similar to the Project, this alternative includes a master

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	entity acceptable to the City of Rialto.	developed as a master-planned community, this alternative would not include a master homeowners association that could maintain proposed parks within the LCRSP area.	homeowners association to maintain proposed parks and recreational facilities.
Policy 3-11.2: Maximize joint facility use by sharing with non-profit organizations, the Rialto Unified School District, and other community organizations.	**Consistent.** The project would include a 5.1-acre joint-use park adjacent to a new elementary school and a 12.1-acre joint-use park adjacent to a new K–8 school.	**Consistent to the same extent as the Project.** The alternative would include a 12-acre joint-use park adjacent to a new K–8 school.	**Consistent to the same extent as the Project.** The alternative would include a 5.1-acre joint-use park adjacent to a new elementary school.
Policy 3-11.4: Locate community facilities equitably so that they are accessible to all members of the community and serve populations of the greatest needs by removing physical, financial, and language barriers.	**Consistent.** As described above in response to Goal 3-11, the Project would provide for a variety of community facilities including public parks which will be accessible to all community members.	**Consistent to the same extent as the Project.** Though the majority of the open space/ recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community, the redesigned golf course and associated facilities will be accessible to the public.	**Consistent to the same extent as the Project.** Although this alternative would reduce the amount of parks and community facilities proposed for the Project site, this alternative would provide similar accessibility to proposed facilities as the Project.
Education and Library			
Goal 3-12: Improve access to high-quality education opportunities for all Rialto residents and for all stages of	**Consistent.** As part of the Project, two future school sites will be set aside within Neighborhood III, including a separate elementary school and a combined elementary/	**Consistent to the same extent as the Project.** Though this alternative proposes the development of only one school, coordination with each school	**Consistent to the same extent as the Project.** Though this alternative proposes the development of only one school, coordination with each school

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
life. **Policy 3-12.1:** Promote and support the K-12 public education system by working closely with the Rialto Unified School District, Colton Unified School District, San Bernardino School District, and the Fontana Unified School District to determine and meet community needs for public education and related activities.	middle school. Both school sites are located within the jurisdiction of the RUSD. In addition, the Project will satisfy its school mitigation obligations through the payment of State-imposed school impact fees.	district serving the Project site would occur. In addition, the Applicant would also pay its negotiated fair share of impact fees under this alternative.	district serving the Project site would occur. In addition, the Applicant would also pay its negotiated fair share of impact fees under this alternative.
Goal 3-13: Provide high-quality library resources to meet the educational, cultural, and life-long learning needs of all residents. **Policy 3-13.1:** Continue the innovative partnership with the San Bernardino County Library and Friends of the Rialto Library to improve the quality of library services in Rialto.	**Consistent.** Although the Project will not directly provide library services, the Project will increase property and sales tax revenues to the City which can be used to offset municipal costs for those services. In addition, the Project will pay its negotiated fair share of impact fees to provide for the mitigation of financial costs to the City and protect existing City levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Community Services			
Policy 3-14.4: Promote a full range of quality child-care services, located throughout the community, which support and strengthen families while meeting the development and	**Consistent.** Small child day care facilities, centers, and preschools as an accessory use would be permitted within the LCRSP area.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would allow for small child day care facilities, centers, and preschools as an accessory use within the	**Consistent to the same extent as the Project.** Similar to the Project, this alternative would allow for small child day care facilities, centers, and preschools as an accessory use within the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
social needs of children.		LCRSP area.	LCRSP area.
Goal 3-15: Promote a social environment in Rialto that enhances the dignity of the individual and improves the quality of life.	**Consistent.** As proposed, the Project will be designed to promote social connectivity. Specifically, homes will be designed to have a strong relationship to the street so that residents have direct views of the street and outdoor living space to enhance the sense of safety and community. In addition, through the provision of Village Commercial uses, the Project would provide employment opportunities and places for residents and visitors to shop and dine. Furthermore, the Project would provide physical linkages between land uses that promote walking and bicycling. Additionally, the Project would also encourage compact development that concentrates residential areas close to public amenities such as schools, parks, retail, golf, recreation centers, etc.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-planned development and would develop infrastructure and amenities in a more piecemeal fashion. In addition, the majority of the open space/recreation acreage provided under this alternative would be devoted to a redesigned golf course, with the remainder only providing green space areas (with paths and benches), with no formal active recreation parks dedicated to the community.	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project and despite the provision of three recreation centers, a Paseo Park, and a 5.1-acre joint-use park adjacent to the new elementary school, this alternative would not provide a golf course, an associated clubhouse, or a sports park as would the Project. Thus, this alternative would not support this policy to the extent the Project would.
Goal 3-16: Ensure integration and participation of seniors in mainstream community life through accessible social services.	**Consistent.** The project seeks to respond to an unmet need for active-adult communities in the City by providing residents with a golf course-oriented community and a variety of conveniently located on-site amenities. Specifically, Neighborhood II is planned as a gated, active-adult community on approximately 801.8 acres and will include the entire 221-	**Consistent but to a lesser extent than the Project.** Similar to the Project, this alternative would include an active-adult community and a redesigned golf course. However, this alternative would not include any of the community centers proposed for the Project site, including the adult community center.	**Inconsistent.** This alternative would eliminate the Project's active-adult community and would not provide a golf course and associated facilities. Thus, this alternative would not support this City goal.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	acre City-approved "El Rancho Verde Specific Plan" area and the El Rancho Verde Royal Vista Golf Course. The golf course will include a new golf clubhouse with pro shop, locker rooms, offices, bar, restaurant, banquet facilities, tournament lawn, driving range, and cart storage barn. In addition, within the gated active-adult community, a private active-adult community center will be provided and will include a swimming pool and spa, and an internet room/library and a crafts room.	Therefore, this alternative would not promote this goal to the extent the Project would.	
Circulation			
Goal 4-1: Provide transportation improvements to reduce traffic congestion associated with regional and local trip increases.	**Consistent.** The project would cause to be completed various intersection and roadway improvements and contribute the Project's "fair-share" towards additional roadway improvements at applicable study area intersections. In addition, the Project will construct new streets and provide improvements to existing streets concurrently with new development in order to ensure that Level of Service D is maintained on arterial roadways in the vicinity of the Project.	**Consistent but to a lesser extent than the Project.** This alternative would be expected to utilize the same mitigation measures as the Project. However, as this alternative would not be developed as a master-planned community, infrastructure and amenities would be constructed in a more piecemeal fashion rather than in conjunction with development. As such, this alternative would not support this goal to the extent the Project would.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, and would be developed as a master-planned community and incorporate similar roadway improvements as the Project, this alternative would promote this goal to the same extent as the Project.
Policy 4-1.1: Establish and	**Consistent.** The LCRSP includes a	**Consistent to the same extent**	**Consistent to the same extent**

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
maintain standards for a variety of street classifications to serve both local and regional traffic, including Major Arterial Highways, Major Arterials, Secondary Arterials, Collector Streets, and Local Streets. **Policy 4-1.2:** Establish standards for spacing between access driveways on roadways of each classification, and encourage shared access between adjacent parcels to minimize the number of access points and improve safety along adjacent roadways.	Circulation Plan which includes standards for entry streets, collector streets, local streets, alley drives, and roundabouts. The Circulation Plan also includes standards for vehicular circulation, pedestrian circulation, bikeways, parking facilities, and connections to mass transit. In addition, through the Circulation Plan, the Applicant seeks to provide direct and convenient access to individual residential enclaves, employment, and service land uses through a safe and efficient street network and a pedestrian trail/sidewalk system.	**as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-1.3: Establish and maintain standards for private roadways.	**Consistent.** The LCRSP Circulation Plan includes a network of public and private streets that create an efficient and comprehensive street pattern. Standards for private roadways within the LCRSP area will be included within the Circulation Plan.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-1.6: Coordinate with the California Department of Transportation, San Bernardino Association of Governments, and neighboring jurisdictions to accommodate growing volumes of east-west traffic. This Plan	**Consistent.** The Traffic Impact Analysis for the Project is being jointly processed through SanBAG. In addition to consultation that already occurred, the CEQA process provides an additional mechanism for agencies to review and comment on the	**Consistent to the same extent as the Project.** Similar to the Project, coordination will occur with all affected public agencies regarding this alternative's potential traffic impacts.	**Consistent to the same extent as the Project.** Similar to the Project, coordination will occur with all affected public agencies regarding this alternative's potential traffic impacts.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
envisions Riverside Avenue, Baseline Road, and Foothill Boulevard to become six-lane arterials.	Project.		
Policy 4-1.13: Support the County's efforts to improve the I-15 freeway interchange at Sierra Avenue.	**Consistent.** Upon reaching a certain number of minimum trips, the Project would cause to be completed various intersection improvements, including improvements at the I-15 freeway northbound and southbound on/off ramps at Sierra Avenue.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.
Policy 4-1.17: Require new streets and improvements to connect to established streets.	**Consistent.** The Vehicular Circulation Plan includes a network of public and private streets that create an efficient and comprehensive street pattern. New streets would connect to existing streets in the vicinity of the Project site.	**Consistent to the same extent as the Project.** Similar to the Project, any proposed new streets will connect to existing streets in the vicinity of the LCRSP area.	**Consistent to the same extent as the Project.** Similar to the Project, any proposed new streets will connect to existing streets in the vicinity of the LCRSP area.
Policy 4-1.18: Review the City's Development Impact Fee for traffic regularly to ensure compliance with the requirements of Measure I.	**Consistent.** The Applicant would contribute its fair share of impact fees based on coordination with the City.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours, and require new	**Consistent.** All arterial roadways within the City affected by the Project can be mitigated to LOS "D" or better.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
development to mitigate traffic impacts that degrade LOS below that level. The one exception will be Riverside Avenue south of the Metrolink tracks all the way to the City's southern border, which can operate at LOS E.		as the Project.	as the Project.
Goal 4-2: Protect residential neighborhoods from through traffic impacts. **Policy 4-2.1:** Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking. **Policy 4-2.2:** Discourage non-local traffic from using neighborhood streets.	**Consistent.** Streets patterns are designed to minimize non-local traffic on neighborhood streets. In addition, Neighborhoods II and III incorporate traffic roundabouts that will serve to calm traffic and discourage through-traffic.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-2.3: Minimize new residential driveways on Arterial Roadways.	**Consistent.** New residential driveways will be constructed only on local streets, and will be prohibited on arterials.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 4-4: Protect school children and others from traffic hazards around schools. **Policy 4-4.1:** Designate and	**Consistent.** The project would comply with all City and applicable school district standards for the development of new school facilities. To that end, the Project would comply	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project and	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project and

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
mark school bus stops at curbs within neighborhoods to create clear curbside boarding spaces for school bus passengers. **Policy 4-4.2:** Review campus site plans to ensure that school bus bays, parking lots, automobile passenger pick-up and drop-off areas, bicycle sheds and paths, and pedestrian walks are designed to maximize separation of travel modes, and to minimize danger to arriving and departing students and school personnel.	with Mitigation Measure 9-7, specifying that any school site be deemed acceptable to the benefitting school district. In addition, to best ensure the safety of pedestrians and residences and enhance the protection of children and others residing in adjoining neighborhoods, the Project would be required to prepare a construction traffic management plan (CTMP) prior to the approval of final grading permits for new major development under the LCRSP. The CTMP shall provide for the scheduling of construction and maintenance related traffic so that it does not unduly create any safety hazards to children, to pedestrians, and to other parties**.**	would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 4-5: Ensure the provision of adequate, convenient, and safe parking for all land uses.	**Consistent.** The project will contain a mix of land uses. Due to the potential variation within the final approved elements, parking levels cannot be established at this time. However, parking will be provided to meet City parking codes and other requirements. This will ensure that adequate parking is provided on the Project site.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-5.4: Allow for joint use and the sharing of parking facilities in mixed-use developments and for other	**Consistent.** As previously indicated, parking will be provided to meet City parking codes and other requirements to ensure that adequate parking is	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
projects which demonstrate the benefits of alternative parking approaches.	provided on the Project site. Shared parking may be permitted in planning areas designated as Village Center Commercial, subject to preparation of a shared parking analysis by a qualified Traffic Engineer. This study shall be reviewed and approved by both the Director of Development Services and the City Traffic Engineer.	Project, it would be consistent to the same extent as the Project.	Project, it would be consistent to the same extent as the Project.
Goal 4-6: Provide for all residents and businesses to have equal access to reliable and convenient public transit services. **Policy 4-6.2:** Establish new bus turnouts along appropriate arterials based on and in coordination with local and regional transit providers' master plan of stops. **Policy 4-6.3:** Require major developments to include bus turnouts, bus shelters, and other transit facilities as appropriate. **Policy 4-6.4:** Encourage accessible, flexible, and efficient public transit to all major activity areas in the Inland Empire. **Policy 4-6.5:** Encourage clean, lighted, and convenient bus	**Consistent.** Bus transportation is currently provided by Omnitrans along portions of Riverside Avenue. Within the proposed development, additional bus stops will be provided along the length of Riverside Avenue, as permitted by the City of Rialto and the local transit authority (Omnitrans). Bus stops will consist of covered transit benches and areas allowing for the posting of bus routes and schedules. Commuter and passenger rail service is available from the Rialto Commuter Rail Station, which is accessible via the bus route presently operating along Riverside Avenue, adjacent to the Project site. Bus stops along Riverside Avenue will be in close proximity to the Project's proposed shopping center which will likely contain a supermarket and other neighborhood retail and service-oriented commercial uses, including both fast-food and sit-down	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
shelters and transit stops that are within walking distance of major activity areas and residential neighborhoods and along arterial roadways.	restaurants.		
Goal 4-7: Achieve optimum use of regional rail transit. **Policy 4-7.1:** Support Metrolink regional rail services, and work with the Southern California Regional Rail Authority to expand services.	**Consistent.** As a recommended mitigation measure, the Project includes park-and-ride/park-and-pool facilities and public transit improvements designed to enhance linkages between the Project site and the existing Rialto Metrolink Station.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.
Goal 4-8: Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City.	**Consistent.** The project includes a network of often interconnecting trails, bike lanes, parkways, and paseos. Specifically, the Project proposes a "Grand Paseo" which will interconnect the three proposed neighborhood parks and provide a 70 to 110-foot-wide non-vehicular greenbelt linking a substantial portion of the Project site. In addition, the Project would provide continuous parkways along streets, uniform street trees on each street, pocket parks, and sidewalks for pedestrian connectivity. The project's recreational trail system is proposed to interconnect to other regional trails.	**Consistent to the same extent as the Project.** This alternative would include a network of interconnecting trails and routes similar to the Project.	**Consistent to the same extent as the Project.** This alternative would include a network of interconnecting trails and routes similar to the Project.
Policy 4-8.1: Expand Class I bicycle trails with amenities, particularly adjacent to open	**Consistent.** Class I bicycle trails will include landscaping and other amenities. In addition, the Project	**Consistent but to a lesser extent than the Project.** Though this alternative would provide a	**Consistent to the same extent as the Project.** Like the Project, this alternative would include

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
space areas, utility and flood control corridors, and abandoned rail corridors.	includes preservation of at least 829.2 acres of natural open space, including along portions of the Lytle Creek floodplain and fault-impacted areas.	network of interconnecting trails, this alternative would not be developed as a master-planned community, and aside from the redesigned golf course, the open space/recreation uses under this alternative would only include green space areas (with paths and benches), with no formal active recreation parks dedicated to the community.	Class I bicycle trails with landscaping and other amenities.
Policy 4-8.3: Connect school facilities, parks, and other activity nodes within residential neighborhoods with bicycle trails on neighborhood streets.	**Consistent.** The schools and parks within Neighborhood III will be linked via Class I and Class II bicycle trails on the central collector street.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-8.6: Coordinate recreational trail plans with neighboring cities and San Bernardino County to ensure linkage of local trails across jurisdictional boundaries and with regional trail systems.	**Consistent.** The project includes the provision of a recreational trail system within the Project boundary and interconnects the proposed trail system to other regional trails. In addition, through Mitigation Measure 9-8, the Applicant will coordinate proposed trail plans with the City and San Bernardino County.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.
Goal 4-9: Promote walking.	**Consistent.** Through the provision of a variety of pedestrian amenities, the Project would encourage street activity, promote walking, and allow convenient access to parks, schools, and local shopping. Specifically, the	**Consistent but to a lesser extent than the Project.** Though this alternative would utilize many similar design standards as the Project, this alternative would not be developed as a master-	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Project includes a network of often interconnecting trails, bike lanes, parkways, and paseos that will be accessible to pedestrians and bicyclists. In addition, convenient pedestrian and bicycle access from residential areas to non-residential development, such as the proposed shopping center, will be available via the internal trail and roadway network.	planned development and would develop infrastructure and facilities in a more piecemeal fashion rather than in conjunction with development. As such, though this alternative would be consistent with this goal, it would not be consistent to the same extent as the Project.	the same extent as the Project.
Policy 4-9.1: Install sidewalks where they are missing, and make improvements to existing sidewalks for accessibility purposes. Priority should be given to needed sidewalk improvement near schools and activity centers. Provide wider sidewalks in areas with higher pedestrian volumes. **Policy 4-9.2:** Require sidewalks and parkways on all streets in new development.	**Consistent.** The LCRSP is designed with sidewalks on at least one side of all streets. In addition, all arterials bordering Village Center Commercial districts will include sidewalks.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-9.3: Provide pedestrian-friendly and safety improvements, such as crosswalks and pedestrian signals, in all pedestrian activity areas.	**Consistent.** The landscape design for the Project provides for street trees along all streets of all classifications. Where space allows, street trees will include tree species that provide sufficient canopy to shade the street and promote a pedestrian scale. In addition, through the provision of a variety of pedestrian amenities, the	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Project would encourage street activity, promote walking, and allow convenient access to parks, schools, and local shopping. Where pedestrian crossings are provided, curbs may be pinched to shorten the crossing distance required. Additional pedestrian protections, including bollards and defensible space landscape treatment may be required to ensure pedestrian safety.		
Policy 4-9.4: Accommodate pedestrians and bicyclists—in addition to automobiles—when considering new development projects.	**Consistent.** As described further above, the Project proposes a variety of improvements to the existing circulation system including the provision of additional vehicular and non-vehicular routes.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-9.5: Seek to maintain pedestrian access in the event of any temporary or permanent street closures.	**Consistent.** As part of Mitigation Measure 6-2, prior to the issuance of the final grading plan for new major development projects, defined as 50 or more new dwelling units and/or 50,000 or greater square feet of new non-residential use, the Applicant shall submit and, when deemed acceptable, the City Engineer shall approve a traffic control plan, consistent with Caltrans' "Manual of Traffic Controls for Construction and Maintenance Work Zones," or such alternative as may be deemed acceptable by the City Engineer, describing the Applicant's efforts to	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	maintain vehicular and non-vehicular access throughout the construction period. Upon implementation of the Project, new access routes would be available to pedestrians.		
Policy 4-9.6: Encourage new development to provide pedestrian paths through projects, with outlets to adjacent collectors, secondaries, and arterial roadways.	**Consistent.** The project proposes a system of bicycle trails and walking trails throughout the Project site. These trails will follow the alignment of the major streets within the Project area and connect to a trail system to be established along the northeast side of Riverside Avenue. Thus, residents will be able to walk or ride their bikes to Riverside Avenue.	**Consistent to the same extent as the Project.** This alternative would include a network of interconnecting trails and routes similar to the Project.	**Consistent to the same extent as the Project.** This alternative would include a network of interconnecting trails and routes similar to the Project.
Policy 4-9.7: Require ADA compliance on all new or modified handicap ramps.	**Consistent.** The project would comply with all City and Americans with Disabilities Act standards for the provision of new handicap ramps.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-10.2: Coordinate truck routes with adjacent jurisdictions.	**Consistent.** The LCRSP does not alter existing truck routes through the City.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Policy 4-10.3: Develop appropriate noise mitigation along truck routes to minimize noise impacts on nearby	**Consistent.** Residential areas will be protected from noise, pollution, and danger of excessive vehicular traffic by buffer walls, as necessary and	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
sensitive land uses.	appropriate. In addition, to the extent feasible, schools and parks shall be designed to: (1) locate and orient vehicle access points, including pick-up and drop-off areas, away from noise sensitive uses; (2) locate loading and shipping facilities away from adjacent noise sensitive uses; (3) minimize the use of outdoor speakers and amplifiers oriented toward adjacent sensitive receptors; and (4) incorporate fences, walls, landscaping, and other noise buffers and barriers between the proposed use and other abutting noise sensitive uses.	Project, it would be consistent to the same extent as the Project.	Project, it would be consistent to the same extent as the Project.
Policy 4-10.4: Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.	**Consistent.** As previously indicated, loading zones will be located further from the front of the building or on the side or rear of the buildings.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.
Safety and Noise			
Goal 5-1: Minimize hazards to public health, safety, and welfare associated with geotechnical hazards.	**Consistent.** A portion of the site is located within an Alquist-Priolo zone. Numerous site-specific studies have been performed that more accurately defined that zone. Based on these studies, the Project includes preservation of at least 829.2 acres of natural open space, including along	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project. In addition, this alternative also includes preservation of natural	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project. In addition, this alternative also includes preservation of natural

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	portions of the Lytle Creek floodplain and fault-impacted areas. In addition, appropriate setbacks will be utilized from any residential development.	open space along fault-impacted areas.	open space along fault-impacted areas.
Policy 5-1.1: Require geotechnical investigations by certified engineering geologist or other qualified professionals for all grading and construction projects subject to geologic hazards, including fault rupture, severe ground shaking, liquefaction, landslides, and collapsible or expansive soils. Particular attention should be paid to areas within Alquist-Priolo Earthquake Fault Zones.	**Consistent.** Geotechnical investigations have been conducted and mitigation is provided to minimize potential seismic hazards.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would be expected to utilize the same mitigation measures as the Project, it would be consistent to the same extent as the Project.
Policy 5-1.2: Require all construction to be in conformance with the Uniform Building Code (UBC) and the California Building Code (CBC), and to be consistent with the Municipal Code as it provides for earthquake resistant design, excavation, and grading.	**Consistent.** The project will be constructed in conformance with applicable UBC and CBC standards.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will be constructed in conformance with applicable UBC and CBC standards.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative will be constructed in conformance with applicable UBC and CBC standards.
Goal 5-2: Minimize the risk and damage from flood hazards.	**Consistent.** As previously described, the Project includes preservation of at least 829.2 acres of natural open space, including along portions of the Lytle Creek floodplain and fault-impacted areas. In addition, the	**Consistent to the same extent as the Project.** Although this alternative includes the preservation of natural open space along portions of the Lytle Creek floodplain, this alternative	**Consistent to the same extent as the Project.** Although this alternative includes the preservation of natural open space along portions of the Lytle Creek floodplain and includes

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	Project includes improvements to the levee system along portions of Lytle Creek designed to minimize potential risks and damage associated with flooding.	would not be developed as a master-planned community and would develop infrastructure and facilities in a more piecemeal fashion. However, as with the Project, this alternative would include improvements to the levee system to minimize potential risks and damage associated with flooding. As such, this alternative would be consistent with this goal to the same extent as the Project.	improvements to the levee system along portions of Lytle Creek, in order to reduce potential project impacts affecting RAFSS areas located on the Project site, this alternative does not include extension of the proposed levee to the existing Cemex USA levee. Overall, however, as all development would be located behind the FEMA 100-year floodplain line this alternative would consistent with this goal to the same extent of the Project
Policy 5-2.1: For properties located within designated 100-year flood zones, require the submittal of information prepared by qualified specialists which certifies compliance with development standards established for 100-year flood zones.	**Consistent.** As part of the EIR preparation several hydrology-related technical reports were prepared. In addition, proposed drainage and flood control facilities and improvements will be provided in coordination with the City of Rialto and the County of San Bernardino Flood Control District. Furthermore, as proposed levee improvements will modify floodplain boundaries, a conditional letter of map revision or conditional letter of map amendment will need to be processed with the City and the Flood Control District.	**Consistent to the same extent as the Project.** Similar to the Project, under this alternative, proposed drainage and flood control facilities and improvements will be provided in coordination with the City of Rialto and the County of San Bernardino Flood Control District.	**Consistent to the same extent as the Project.** Similar to the Project, under this alternative, proposed drainage and flood control facilities and improvements will be provided in coordination with the City of Rialto and the County of San Bernardino Flood Control District. However, as noted above, all development would be located behind the 100-year floodplain line.
Policy 5-2.2: Require the implementation of adequate erosion control measures for development projects to	**Consistent.** The LCRSP incorporates BMPs and erosion control measures to minimize sedimentation damage to drainage	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
minimize sedimentation damage to drainage facilities.	facilities.	Project, it would be consistent to the same extent as the Project.	Project, it would be consistent to the same extent as the Project.
Policy 5-2.3: Continue to consult with the San Bernardino County Flood Control District regarding the establishment and maintenance of regional flood control facilities located within the City.	**Consistent.** Drainage and flood control facilities and improvements will be provided in coordination with the City of Rialto and the County of San Bernardino Flood Control District. In addition, the Applicant would consult with the San Bernardino County Flood Control District regarding the proposed levee improvements.	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would consult with the San Bernardino County Flood Control District regarding any proposed flood control improvements under this alternative.	**Consistent to the same extent as the Project.** Similar to the Project, the Applicant would consult with the San Bernardino County Flood Control District regarding any proposed flood control improvements under this alternative.
Policy 5-2.4: Require water retention devices in new developments to minimize flooding of the surface drainage system by peak flows.	**Consistent.** The LCRSP includes water retention devices concurrently with development of new construction in order to minimize peak flows to the surface drainage system. Most of these devices will be constructed within the "Grand Paseo" in Neighborhood III, or the golf course in Neighborhood II.	**Consistent but to a lesser extent than the Project.** As this alternative would not be developed as a master-planned community, necessary infrastructure improvements would be developed in a more piecemeal fashion rather than in conjunction with development. In addition, though this alternative would provide a redesigned golf course and green space areas, which would serve to infiltrate water runoff, this alternative would not include development of the Grand Paseo and as such would not provide natural drainage improvements to the extent the Project would.	**Consistent but to a lesser extent than the Project.** This alternative would provide for a Paseo Park, which, similar to the Project, in addition to providing recreational opportunities, may be utilized as a drainage corridor. Nonetheless, as this alternative greatly reduces natural drainage areas such as the golf course, this alternative would not support this policy to the extent the Project would.
Policy 5-2.5: Require that any structure proposed within an	**Consistent.** As previously described, the Project includes preservation of at	**Consistent to the same extent as the Project.** Although this	**Consistent to the same extent as the Project.** Although this

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
officially designated 100-year floodplain, or other floodplain as determined through geotechnical investigation, be designed in a manner that does not negatively impede or redirect floodwaters or raise anticipated flood heights.	least 829.2 acres of natural open space, including along portions of the Lytle Creek floodplain and fault-impacted areas. In addition, the Project includes improvements to the levee system along portions of Lytle Creek designed to minimize potential risks and damage associated with flooding.	alternative includes the preservation of natural open space along portions of the Lytle Creek floodplain, this alternative would not be developed as a master-planned community and would develop infrastructure and facilities in a more piecemeal fashion. However, as with the Project, this alternative would include improvements to the levee system to minimize potential risks and damage associated with flooding. As such, this alternative would be consistent with this goal to the same extent as the Project.	alternative includes the preservation of natural open space along portions of the Lytle Creek floodplain and includes improvements to the levee system along portions of Lytle Creek, in order to reduce potential project impacts affecting RAFSS areas located on the Project site, this alternative does not include extension of the proposed levee to the existing Cemex USA levee. Overall, however, as all development would be located behind the FEMA 100-year floodplain line, this alternative would consistent with this goal to the same extent of the Project
Goal 5-3: Increase the City's fire protection capabilities, and implement fire prevention regulations and standards that minimize potential fire hazards and fire losses. **Policy 5-3.1:** Provide for fire personnel, equipment, and fire stations to have adequate and appropriate resources to meet the needs and serve all areas of Rialto.	**Consistent.** The project will increase property and sales tax revenues to the City which can be used to offset municipal costs for emergency response services. In addition, the Project will pay its negotiated fair share of impact fees which would provide for the mitigation of financial costs to the City and protect existing City levels of service.	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 5-3.3: Require that development be phased in	**Consistent.** The LCRSP will be developed in phases concurrently with	**Consistent but to a lesser extent than the Project.** As this	**Consistent to the same extent as the Project.** Similar to the

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
relation to the City's ability to provide an adequate level of fire protection, as per the City standards.	required infrastructure and the expansion of public services.	alternative would not be developed as a master-planned community, necessary infrastructure improvements would be developed in a more piecemeal fashion rather than in conjunction with development. Though this alternative would be consistent with this policy, it would not be consistent to the same extent as the Project.	Project, this alternative will be developed in phases concurrently with required infrastructure and the expansion of public services.
Policy 5-3.4: Require that all site plans, subdivision plans, and building plans be reviewed by the Fire Department to ensure compliance with appropriate fire regulations.	**Consistent.** All site, subdivision, and building plans will be reviewed by the City's Fire Department to ensure compliance with appropriate fire regulations.	**Consistent to the same extent as the Project.** As with the Project, all site, subdivision, and building plans will be reviewed by the City's Fire Department under this alternative.	**Consistent to the same extent as the Project.** As with the Project, all site, subdivision, and building plans will be reviewed by the City's Fire Department under this alternative.
Policy 5-3.7: Add service level capability and infrastructure to meet increasing demand of new development.	**Consistent.** The project will increase property and sales tax revenues to the City which can be used to expand fire service capabilities. In addition, the Project will pay its negotiated fair share of impact fees which would provide for the mitigation of financial costs to the City and protect existing City levels of service.	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Policy 5-3.8: Ensure that a defensible perimeter is maintained around residential	**Consistent.** The project would be designed to comply with specific design, development, and procedural	**Consistent to the same extent as the Project.** As this alternative would utilize many	**Consistent to the same extent as the Project.** As this alternative would utilize many

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
located in high or very high wildfire hazards zones, as per Fire Department guidelines.	standards within designed fire safety zones, including, but not limited to, standards and provisions contained in California Building Code, Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) (Section 82.13.050). In addition, all project site plans, subdivision plans, and building plans will be reviewed by the City's Fire Department to ensure compliance with appropriate fire regulations.	similar design standards as the Project, it would be consistent to the same extent as the Project.	similar design standards as the Project, it would be consistent to the same extent as the Project.
Goal 5-4: Protect the health and welfare of the public, environment, and economy by providing for the safe and responsible management of hazardous materials and wastes. **Policy 5-4.2:** Coordinate City enforcement efforts with San Bernardino County, the California Department of Health Services, the Regional Water Quality Control Boards, and the Air Quality Management District, for the management and disposal of hazardous wastes.	**Consistent.** The project would comply with applicable regulations related to the use, handling, storage and disposal of hazardous materials and waste.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable regulations related to the use, handling, storage, and disposal of hazardous materials and waste.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable regulations related to the use, handling, storage, and disposal of hazardous materials and waste.
Policy 5-4.4: Require all hazardous waste generators and hazardous materials handlers to report to City	**Consistent.** Per City Fire Department standards, any hazardous material upset which may cause hazardous wastes to be emitted will	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable standards	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable standards

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
officials, including the Fire Department any equipment malfunction or upset which may cause hazardous waste to be emitted.	be reported to the City Fire Department.	regarding the notification of hazardous materials upset conditions.	regarding the notification of hazardous materials upset conditions.
Goal 5-5: Minimize the generation of hazardous waste in Rialto. **Policy 5-5.2:** Encourage and promote practices that will reduce the use of hazardous materials and the generation of hazardous waste at their source, recycle the remaining hazardous wastes for reuse, and treat those wastes which cannot be reduced at the source or recycled.	**Consistent.** In compliance with the Hazardous Waste Source Reduction and Management Review Act (i.e., Senate Bill 14), the Applicant would implement source reduction measures to reduce the generation of hazardous waste on-site.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with the Hazardous Waste Source Reduction and Management Review Act (i.e., Senate Bill 14) to reduce the generation of hazardous waste on-site.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with the Hazardous Waste Source Reduction and Management Review Act (i.e., Senate Bill 14) to reduce the generation of hazardous waste on-site.
Policy 5-5.3: Prohibit businesses from storing hazardous materials for commercial use or commercially generated hazardous wastes in residential areas.	**Consistent.** The project would comply with applicable regulations related to the use, handling, storage and disposal of hazardous materials and waste.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable regulations related to the use, handling, storage, and disposal of hazardous materials and waste.	**Consistent to the same extent as the Project.** As with the Project, this alternative would comply with applicable regulations related to the use, handling, storage, and disposal of hazardous materials and waste.
Goal 5-7: Maintain a high level of emergency response capability. **Goal 5-8:** Provide effective and comprehensive policing services	**Consistent.** The project will increase property and sales tax revenues to the City which can be used to offset municipal costs for emergency response services. In addition, the Project will pay its negotiated fair	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in	**Consistent to the same extent as the Project.** Although this alternative would not provide the same increase in property and sales tax revenues to the City, based on the reduction in

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
that meet the safety needs of Rialto. **Policy 5-8.1:** Provide timely responses to emergency and nonemergency call for service 24 hours a day, per the City standards.	share of impact fees which provide for the mitigation of financial costs to the City and protect existing City levels of service. Furthermore, payment of applicable impact fees will allow expansion of Rialto Fire Department services and facilities consistent with project demands.	development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.	development, similar to the Project, this alternative will pay its negotiated fair share of impact fees to mitigate financial costs to the City and protect the City's existing levels of service.
Goal 5-10: Minimize the impact of point source and ambient noise levels throughout the community. **Policy 5-10.2:** Consider noise impacts as part of the development review process, particularly the location of parking, ingress/egress/loading, and refuse collection areas relative to surrounding residential development and other noise-sensitive land uses. **Policy 5-10.3:** Ensure that acceptable noise levels are maintained near schools, hospitals, and other noise sensitive areas in accordance with the Municipal Code and noise standards contained in Exhibit 5-5. **Policy 5-10.4:** Limit the hours of operation at all noise generation sources that are	**Consistent.** Development within the LCRSP area will comply with applicable City noise standards.	**Consistent to the same extent as the Project.** As this alternative would also comply with applicable City noise standards, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would also comply with applicable City noise standards, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
adjacent to noise-sensitive areas. **Policy 5-10.5:** Require all exterior noise sources (construction operations, air compressors, pumps, fans and leaf blowers) to use available noise suppression devices and techniques to reduce exterior noise to acceptable levels that are compatible with adjacent land uses. **Goal 5-11:** Minimize the impacts of transportation-related noise. **Policy 5-11.1:** Work with responsible Federal and State agencies to minimize the impact of transportation-related noise, including noise associated with freeways, major arterials, and Metrolink and other rail lines. **Policy 5-11.3:** Require development of truck-intensive uses to minimize noise impacts on adjacent uses through appropriate site design.			
Housing			
Goal 6-1: Maintain and improve the quality of existing housing	**Consistent.** The project would provide for a high quality residential	**Consistent but to a lesser extent than the Project.** As this	**Consistent but to a lesser extent than the Project.** This

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
and neighborhoods in Rialto. **Policy 6-1.3:** Encourage neighborhood and local involvement in addressing housing and neighborhood maintenance and improvement. **Policy 6-1.4:** Undertake comprehensive neighborhood reinvestment strategies to stabilize and improve neighborhoods. **Policy 6-1.5:** Preserve the existing character and quality of established single-family neighborhoods and communities.	and commercial development and provide for community-serving uses as well as open space and pedestrian amenities adjacent to existing residential neighborhoods. Through the placement of compatible adjacent development and the provision of additional community-serving uses, the LCRSP will respect the scale, massing, and landscape of nearby residential areas and help to improve, preserve, and stabilize nearby established residential areas.	alternative would not be developed as a master-planned development, this alternative could result in a less cohesive community that may be less compatible with adjacent established residential neighborhoods. In addition, although this alternative would provide for a mix of uses at the Project site, less development would occur under this alternative, and accordingly, this alternative would therefore provide less community-serving uses compared to the Project. Thus, this alternative would not encourage neighborhood preservation and stabilization to the extent the Project would.	alternative would be developed as a master planned community resulting in a cohesive, integrated whole and would be consistent in scale, massing, and landscaping of that community and of nearby residential areas. However, this alternative greatly minimizes the amount of neighborhood-serving facilities proposed within the LCRSP area and would therefore not serve to improve adjacent established residential neighborhoods to the same extent the Project would.
Goal 6-2: Promote and encourage housing development that adequately meets the needs of all socioeconomic segments of the community and region. **Policy 6-2.1:** Utilize the Managing the Land Supply Element, Zoning Ordinance, and other land use controls to provide housing sites that can facilitate and encourage the development of a variety of housing consistent with the	**Consistent.** Proposed are five separate categories of residential development, providing a broad array of housing types and residential densities including Single-Family Residential 1 (2 to 5 du/ac), Single-Family Residential 2 (5 to 8 du/ac), Single-Family Residential 3 (8 to 14 du/ac), Multi-Family Residential (14 to 28 du/ac), and High Density Residential (25 to 35 du/ac).	**Consistent to the same extent as the Project.** Although this alternative would reduce the amount of development proposed for the Project site, this alternative would provide for the same five categories of residential development as the Project and thus would promote this goal and policy to the same extent as the Project.	**Consistent to the same extent as the Project.** Although this alternative would reduce the amount of development proposed for the Project site, this alternative would provide for the same five categories of residential development as the Project and thus would promote this goal and policy to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
City's identified local needs and its regional housing responsibilities.			
Policy 6-2.3: Encourage the infilling of vacant residential land and the recycling of underutilized residential land, particularly in Downtown Rialto and along Foothill Boulevard.	**Consistent.** The LCRSP would provide for a diverse of land uses within a vacant area in the City of Rialto. As the Project site is generally surrounded by existing developments and/or established recreational areas, the Project can be considered an infill project.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative proposes to develop existing vacant land surrounded by existing developments.	**Consistent to the same extent as the Project.** Similar to the Project, this alternative proposes to develop existing vacant land surrounded by existing developments.
Policy 6-2.6: Promote the phased and orderly development of new neighborhoods consistent with the provision of infrastructure improvements.	**Consistent.** The LCRSP will provide infrastructure concurrently with development.	**Consistent but to a lesser extent than the Project.** As this alternative would not be developed as a master-planned community, infrastructure and amenities would be constructed in a more piecemeal fashion rather than in conjunction with development. As such, this alternative would not support this goal to the extent the Project would.	**Consistent to the same extent as the Project.** As this alternative would be developed as a master-planned community and incorporate infrastructure improvements as the Project, this alternative would promote this goal to the same extent as the Project.
Policy 6-3.4: Support the development of rental units with three or more bedrooms to provide affordable housing that adequately accommodates larger families, thereby reducing overcrowding and overpayment.	**Consistent.** The LCRSP incorporates several planning areas that are expected to develop with rental units. A percentage of these units may contain three or more bedrooms. The exact number of units with three or more bedrooms, if any, will be determined by the builder of	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

Table 2.5-15 (Continued)
Consistency Assessment—City 2010 General Plan Goals and Policies

Applicable General Plan Goals & Policies	Project Consistency	Habitat Avoidance Alternative 1 Consistency	Habitat Avoidance Alternative 2 Consistency
	each complex.		
Policy 6-3.5: Encourage the construction of apartment complexes with strong on-site management to ensure that housing is well maintained.	**Consistent.** The LCRSP encourages the construction of apartment complexes with strong on-site management to ensure that housing is well-maintained.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.	**Consistent to the same extent as the Project.** As this alternative would utilize many similar design standards as the Project, it would be consistent to the same extent as the Project.

2.5.9 Rejection of Alternatives as Infeasible

Under CEQA, where an EIR has identified significant environmental effects that have not been mitigated or avoided, the lead agency may nonetheless approve the Project if it finds that "[s]pecific economic, legal, social, technological, or other considerations... make infeasible the mitigation measures or alternatives identified in the environmental impact report."[168] In such a situation, the lead agency's task with respect to project approval must include an evaluation as to whether the identified alternatives are "actually feasible."[169] CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."[170] An agency "may reject [project] alternatives if it properly finds them to be infeasible for **any** of the statutorily specified reasons, including economic infeasibility."[171] In addition, an agency may reject project alternatives for being inconsistent with project objectives, or for conflicting with or inadequately accommodating agency planning goals and policies.

Substantial evidence in the record demonstrates that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) are infeasible, as discussed further below.

2.5.9.1 Failure to Avoid or Substantially Lessen the Project's Significant Impacts

An alternative may be found infeasible on environmental grounds, so long as that finding is supported by substantial evidence. Under CEQA, alternatives should avoid or substantially lessen any of the significant and unavoidable impacts of the Project. As shown above, the evidence demonstrates that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would fail to do so. Neither of these alternatives would avoid or substantially lessen the Project's significant and unavoidable air quality, noise, and growth-inducing impacts. Accordingly, the City may reject Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) as infeasible.

2.5.9.2 Financial Infeasibility

An alternative may be found infeasible on economic grounds, so long as that finding is supported by substantial evidence. The feasibility question is "whether the marginal costs of the alternative as compared to the cost of the Project are so great that *a reasonably prudent property owner* would not proceed with the [alternative]."[172] Here, the evidence demonstrates that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be financially infeasible.

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[168] Public Resources Code, § 21081, subdivision (a)(3); CEQA Guidelines, § 15091, subdivision (a)(3)
[169] California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 981.
[170] Public Resources Code, § 21061.1; CEQA Guidelines, § 15364.
[171] The Flanders Foundation v. City of Carmel-by-the-Sea (Jan. 4, 2012, H035818).
[172] Ibid.

CBRE Consulting's Updated Financial Feasibility Analysis presents a detailed analysis of the financial feasibility of the Project, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat), and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas). To determine whether the Project and alternatives would be financially feasible, CBRE calculated their Internal Rate of Return, the industry standard measurement used to evaluate long-term capital real estate investments. CBRE determined that an IRR of 15 to 25 percent would be the threshold at which the Project or the alternatives would be considered financially feasible. As discussed above, the Updated Financial Feasibility Analysis concluded that the Project would yield a return of approximately 15.2 percent, falling within the industry standard rate of return thresholds of 15 to 25 percent, and thus would be financially feasible.

However, based on the detailed analysis provided in the Updated Financial Feasibility Analysis, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) would only result in an IRR of approximately 3.8 percent, and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would only result in an IRR of approximately 7.1 percent. Under current market conditions, both alternatives would yield returns that would not be adequate to attract the necessary equity capital. As both alternatives would be financially infeasible, the City may reject those alternatives as infeasible.

2.5.9.3 Failure to Meet Key Project Objectives

"[A]n alternative 'may be found infeasible on the ground it is inconsistent with the Project objectives as long as the finding is supported by substantial evidence in the record.'"[173] As discussed above, the evidence demonstrates that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat), and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would not meet key project objectives.

Specifically, key project objectives identified by both the Lead Agency and the Applicant involve fiscal and economic concerns. The City is currently facing one of its most challenging budget cycles in its history. Revenues have decreased while expenditures have significantly increased. The City cannot continue to operate long term with a structural deficit in the General Fund. Accordingly, it is key to the City that new development projects be financially feasible. Under CEQA, an agency may find an alternative to be infeasible for failing to meet a project objective that the development be economically feasible.[174] As the Updated Financial Feasibility Analysis determined that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be financially infeasible, neither of those alternatives would attain project objectives LA-7 ("private development activities should be deemed by the City to be fiscally prudent") and A-16 ("undertake development of the Project site in a manner that is economically feasible and balanced to address both the Applicant's and the City's economic concerns").

The Applicant also identified two project objectives related to the redesign of the El Rancho Verde Golf Course. These objectives have become key to the Lead Agency over the past year.

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[173] California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 1001.
[174] Association of Irritated Residents v. County of Madera (2003) 107 Cal.App.4th 1383, 1399-1401.

Under the Project, the El Rancho Verde Golf Course would be redesigned and upgraded with new clubhouse facilities. Unfortunately, the El Rancho Verde Golf Course, a public golf course in the City, was forced to close in 2011 due to steep financial losses. The golf course was a place of community congregation for over 50 years in the City. Having the golf course eventually reopen is a key objective not only of the community but of the City as well. Under Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas), however, the golf course would never have the opportunity to be redesigned and reopened. As such, Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would not attain key project objectives A-7 ("respond to the unmet need for active-adult communities in the Rialto area by providing residents with a golf course-oriented community and a variety of conveniently located on-site amenities") and A-8 ("provide the City and surrounding community with a redesigned public golf course and clubhouse, recreation and open space areas, parks, and trails to meet the City General Plan goals to provide such facilities to maintain and enhance the City's quality of life").

In sum, because Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would not attain key project objectives, the City may reject them as infeasible.

2.5.9.4 Failure to Satisfy Key Goals and Policies of the General Plan

"[A]n alternative that 'is impractical or undesirable from a policy standpoint' may be rejected as infeasible," so long as that finding is supported by substantial evidence.[175] As shown above, the evidence demonstrates that both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would not meet key goals and policies of the City's updated General Plan.

As with the Project objectives, the City's General Plan contains goals and policies regarding financial impacts and economic development. Those policies are key to the City, especially considering the financial strains it is currently undergoing. As described in Table 2.5-15 above, both Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be inconsistent with key City economic goals in the General Plan, including Goal 2-7 ("encourage all annexations that will provide a benefit to the City") and Goal 3-1 ("strengthen and diversify the economic base and employment opportunities, and maintain a positive business climate").

In addition, Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat), a non-master planned community alternative with no formal active recreation parks dedicated to the community and no neighborhood monumentation or definition, would be inconsistent with key goals and policies regarding the provision of community parks and public facilities and neighborhood character or identify, including Policy 2-7.4 ("require that land be set aside for community parks and other public facilities as appropriate for any large planned development") and Goal 2-27 ("provide a variety of park facilities that meet the diverse needs and interest of the community"), as well as Policy 2-8.1 ("promote neighborhood identity and preservation of individual neighborhood character by preserving or creating neighborhood gateway features"),

[175] California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 1001.

Goal 2-10 ("create distinctive gateways at all entry points into Rialto and for individual districts or neighborhoods") and Policies 2-10.1 to 2-10.3 ("continue the use of monument signs at focal points within the community and at major and minor gateways. Establish unified entry treatments at major entries into the City;" "design and implement themed landscape treatments near freeway off- and on- ramps to announce entry into Rialto;" and "encourage new and established neighborhoods to provide ground signs and landscaping at a major street entrance to reinforce their identity," respectively).

Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas), which would eliminate the active adult community in proposed Neighborhood II of the Project as well as the redesigned El Rancho Verde Golf Course, would be inconsistent with key City Policy 3-16 ("ensure integration and participation of seniors in mainstream community life through accessible social services"). Further, Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) proposes a wide swath of residential development, with densities of 8 to 14 dwelling units per acre, in the proposed Neighborhood II area adjacent to an existing single-family community, resulting in additional land use compatibility and aesthetic impacts on established residential areas that would not otherwise occur under the Project if the golf course were to remain. Accordingly, Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be inconsistent with Policy 2-14.1 ("protect views of the San Gabriel and San Bernardino Mountains by ensuring that building heights are consistent with the scale of surrounding, existing development").

In sum, because Habitat Avoidance Alternative 1 (Avoidance of SBKR/LBV-Occupied Habitat) and Habitat Avoidance Alternative 2 (Avoidance of RAFSS Areas) would be inconsistent with key goals and policies of the City's General Plan, the City may reject them as infeasible.