FINAL ENVIRONMENTAL IMPACT REPORT
STATE CLEARINGHOUSE NO. 2008071060

SOUTH PERRIS INDUSTRIAL

CITY OF PERRIS

RIVERSIDE COUNTY, CALIFORNIA

LSA

May 5, 2010

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STATE CLEARINGHOUSE NO. 2008071060

SOUTH PERRIS INDUSTRIAL

CITY OF PERRIS

RIVERSIDE COUNTY, CALIFORNIA

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May 5, 2010

The City of Perris has independently reviewed, analyzed, and exercised its judgment in the analysis contained in this Environmental Impact Report and supporting documentation pursuant to Section 21082 of the California Environmental Quality Act.

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S.0 SUMMARY OF THE FINAL ENVIRONMENTAL IMPACT REPORT

S.1 INTRODUCTION

The Final Environmental Impact Report (EIR) for the South Perris Industrial Project (State of California Clearinghouse No. 2008071060) has been prepared in accordance with the California Environmental Quality Act (CEQA) and the guidelines for the implementation of CEQA. The Final EIR consists of the following contents:

- The Draft EIR (October 2009), State of California Clearinghouse No. 2008071060;
- Text corrections made to the Draft EIR;
- A list of persons, organizations, and public agencies commenting on the Draft EIR;
- The responses of the Lead Agency to significant environmental comments raised in the public review and consultation process (located in Appendix M); and
- The Mitigation Monitoring and Reporting Program (MMRP) (located in Appendix N).

S.2 PUBLIC REVIEW PERIOD

The public review period for the Draft EIR began on October 21, 2009, and ended on December 7, 2009, covering the CEQA-mandated 45-day public review period. A Notice of Completion (NOC) of a Draft EIR was filed with the State Clearinghouse along with the required number of copies of the document for circulation to various State agencies. Over 400 copies of the Draft EIR were also mailed directly to regional and local agencies, groups, and individuals for review. In addition, a copy of the document was made available to the public at the City of Perris Planning Division at Perris City Hall.

S.3 COMMENTS ON THE DRAFT EIR AND RESPONSES

Appendix M of the Final EIR contains the comments to the Draft EIR and responses to those comments. The primary objective and purpose of the EIR public review process is to obtain comments on the adequacy of the analysis of the environmental impacts, the mitigation measures presented, and other analyses contained in the report. CEQA requires the City to respond to all significant environmental comments in a level of detail commensurate to the comment (*CEQA Guidelines*, Section 15088). Comments that do not directly relate to the analysis in this document (i.e., are outside the scope of this document) are not given specific responses. However, all comments are included in this section so that the decision-makers can know the opinions of the commenters.

S.4 LIST OF PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES COMMENTING ON THE DRAFT EIR

The persons, organizations, and public agencies that have submitted comments on the Draft EIR through the end of the 45-day public review period December 7, 2009, as well as three comment letters received after close of the review period are listed below. A total of eighteen comment letters were received regarding the Draft EIR. Comments were received via both e-mail and U.S. mail.

Comment Letters Received on the Draft EIR

Letter A: Morongo Band of Mission Indians

Letter B: Riverside County Fire Department.

Letter C: California Department of Transportation, Division of Aeronautics.

Letter D: Rutan & Tucker, LLP.

Letter E: Bill's Sweeping Services, Inc.

Letter F: Riverside County Flood Control and Water Conservation District.

Letter G Thomas Risher.

Letter H: Ida Mae Minnich.

Letter I: California Department of Transportation, District 8.

Letter J: Public Utilities Commission.

Letter K: U.S. Fish and Wildlife Service.

Letter L: Riverside County Transportation Commission.

Letter M City of Menifee Planning Department.

Letter N: Perris Property, LLC.

Letter O Natural Resources Defense Council.

Letter P: South Coast Air Quality Management District.

Letter Q Governor's Office of Planning and Research (OPR).

Letter R: Natural Resources Defense Council.

S.5 SUMMARY OF REVISIONS TO THE ENVIRONMENTAL IMPACT REPORT

According to *CEQA Guidelines*, Section 15088(c), "… the response to comments may take the form of revisions to the Draft EIR or may be a separate section in the Final EIR. Where the response to comments makes important changes in information contained in the text of the Draft EIR, the Lead Agency should either: (1) revise the text in the body of the EIR or (2) include marginal notes showing the information is revised in the response to comments."

The City has determined that revisions to the Draft EIR would be shown directly in the text of the Final EIR. These revisions include changes associated with responses to agency comments as well as minor typographical and editorial corrections. Added text is shown as double-underline and deleted text is shown in strikeout (~~strikeout~~). Other than minor typographical and editorial revisions that have been made throughout the document, the following summarizes the key changes to the Draft EIR that are shown in the Final EIR:

- In Section 1.0 Executive Summary, the Cumulative Traffic Impacts summary heading (page 1-67 in the Draft EIR) for Traffic and Transportation has been modified by inserting text as follows: **Cumulative Intersection and Roadway Traffic Impacts**. Consistent with the analysis contained in the Draft EIR, the following new impact heading has been added: **Cumulative Freeway Mainline Traffic Impacts**. As identified in the Draft EIR, the "Mitigation Measures" column entry for the new heading indicates No mitigation is feasible and the "Level of Significance after Mitigation" column entry for the new heading indicates Significant and Unavoidable.
- In Section 4.3 Air Quality, **Mitigation Measures 4.3.6.1A, 4.3.6.1B,** and **4.3.6.1D** have been revised to include text additions suggested by the South Coast Air Quality Management District and the Natural Resources Defense Council. These revisions alter neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.

- In Section 4.3 Air Quality, **Mitigation Measures 4.3.6.2K**, **4.3.6.2L**, and **4.3.6.2M** have been added as suggested by the South Coast Air Quality Management District and the Natural Resources Defense Council. Inclusion of these measures alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.3 Air Quality, **Mitigation Measure 4.3.6.3G** has been added as suggested by the South Coast Air Quality Management District. Inclusion of this measure alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.3 Air Quality, **Mitigation Measures 4.3.6.6D** and **4.3.6.6E** have been added as suggested by the South Coast Air Quality Management District and the Natural Resources Defense Council. Inclusion of these measures alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.4 Biological Resources. New Figure 4.4.4, Criteria Cells and Conservation Areas, has been added to the EIR. The new figure and associated text additions clarify the conserved lands within the project area in response to a comment from the United States Fish and Wildlife Service. Inclusion of this new figure and text alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.6 Hazards and Hazardous Materials. New Section 4.6.5.4, Within Two Miles of a Private Airport, has been added to correctly note that there are no private-use airports in the vicinity of the project. Section 4.6.6.1, Within an Airport Land Use Plan or Within Two Miles of a Public Airport, has been modified to include the assessment for the Perris Valley airport originally contained in deleted Draft EIR Section 4.6.6.2. These revisions alter neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.7 Hydrology and Water Quality, Section 4.7.5.1, has been revised with minor additions to the analysis/discussion to note the current status of the California Department of Water Resources Perris Dam Remediation Program. This revision alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.11 Traffic and Circulation, **Mitigation Measures 4.11.7.5C, 4.11.7.5D,** and **4.11.7.5E** have been revised to clarify the timing of when the identified improvements would be implemented as part of the City of Perris Local Mitigation Impact Fee Program, the City of Perris Development Impact Fee Program, and the County of Riverside Transportation Uniform Mitigation Fee (TUMF) Program. The text was added in response to comments raised by California Department of Transportation, District 8. These revisions alter neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.
- In Section 4.11 Traffic and Circulation, **Mitigation Measure 4.11.7.5I** has been added as suggested by the City of Menifee Planning Department. Inclusion of this measure alters neither the analysis nor the conclusions of any subject matter contained within the Draft EIR.

S.6 MITIGATION MONITORING AND REPORTING PROGRAM

The Mitigation Monitoring and Reporting Program (MMRP) is contained in Appendix N. The program has been prepared in compliance with the State law to ensure compliance with mitigation measures adopted for the project by the City of Perris. Assembly Bill 3180 (Public Resources Code, Paragraph 201081.6), effective January 1, 1989, requires adoption of a reporting or monitoring program for those conditions of approval placed on a project to mitigate or avoid adverse effects on the environment. The MMRP has been designed to ensure compliance during project implementation in accordance with State law.

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The ~~Draft~~ Environmental Impact Report (EIR) (State Clearinghouse No. 2008071060) for the South Perris Industrial project (proposed project or project) has been prepared by LSA Associates, Inc. on behalf of the City of Perris (City or Lead Agency) to 1) identify the impacts of the proposed project on the environment, 2) discuss alternatives to the proposed project, and 3) propose mitigation measures that will offset, minimize or otherwise avoid significant environmental impacts. The EIR has been prepared in accordance with the *California Environmental Quality Act*[1] (CEQA) and the *Guidelines for California Environmental Quality Act* (CEQA Guidelines),[2] both of which regulate the preparation of EIRs.

Based on the potential impacts of the proposed project, including cumulative impacts, and the comments received during the public review of the Notice of Preparation (NOP) and Initial Study and public scoping meeting, the City determined that an EIR should be prepared to analyze potential impacts of the proposed project with respect to the following environmental issues:

- Aesthetics;
- Agricultural Resources;
- Air Quality;
- Biological Resources;
- Cultural and Paleontological Resources;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Noise;
- Public Services and Facilities;
- Traffic and Circulation; and
- Utilities and Service Systems.

These twelve environmental issues are individually addressed in Section 4.0 (Environmental Impact Evaluation). Based on the analysis provided in the Initial Study (contained in Appendix A) for the proposed project, all impacts associated with four environmental issues (Geology and Soils, Mineral Resources, Population and Housing, and Recreation) were determined to be "Effects Not Found to be Significant" according to §15128 of the *CEQA Guidelines* and are not further addressed in this EIR. Discussions of the "less than significant" project impacts (Geology and Soils, Mineral Resources, Population and Housing, and Recreation) and why they are not included in detail in this EIR are provided the Initial Study (Appendix A).

The Final EIR includes revisions to the text of the Draft EIR that was distributed for public review by the City of Perris. Added text is shown as double underline and deleted text in strikeout (~~strikeout~~).

[1] *California Environmental Quality Act*, as amended in 2007, §§21000–21178, Public Resources Code, State of California.
[2] *Guidelines for Implementation of the California Environmental Quality Act*, as amended July 27, 2007. §§15000-15387, California Code of Regulations, Title 14, Chapter 3, State of California.

1.2 PROPOSED PROJECT

The proposed South Perris Industrial project is located in the southwest portion of the City of Perris. The project involves development of three separate sites constituting Phases 1, 2 and 3. The sites are located southwest of Interstate 215 (I-215) and south of Fourth Street. Figure 1.1 shows the regional and project vicinity. Each site will be developed with industrial/warehouse uses plus street, water, recycled water, brine line and sewer infrastructure to accommodate the project.

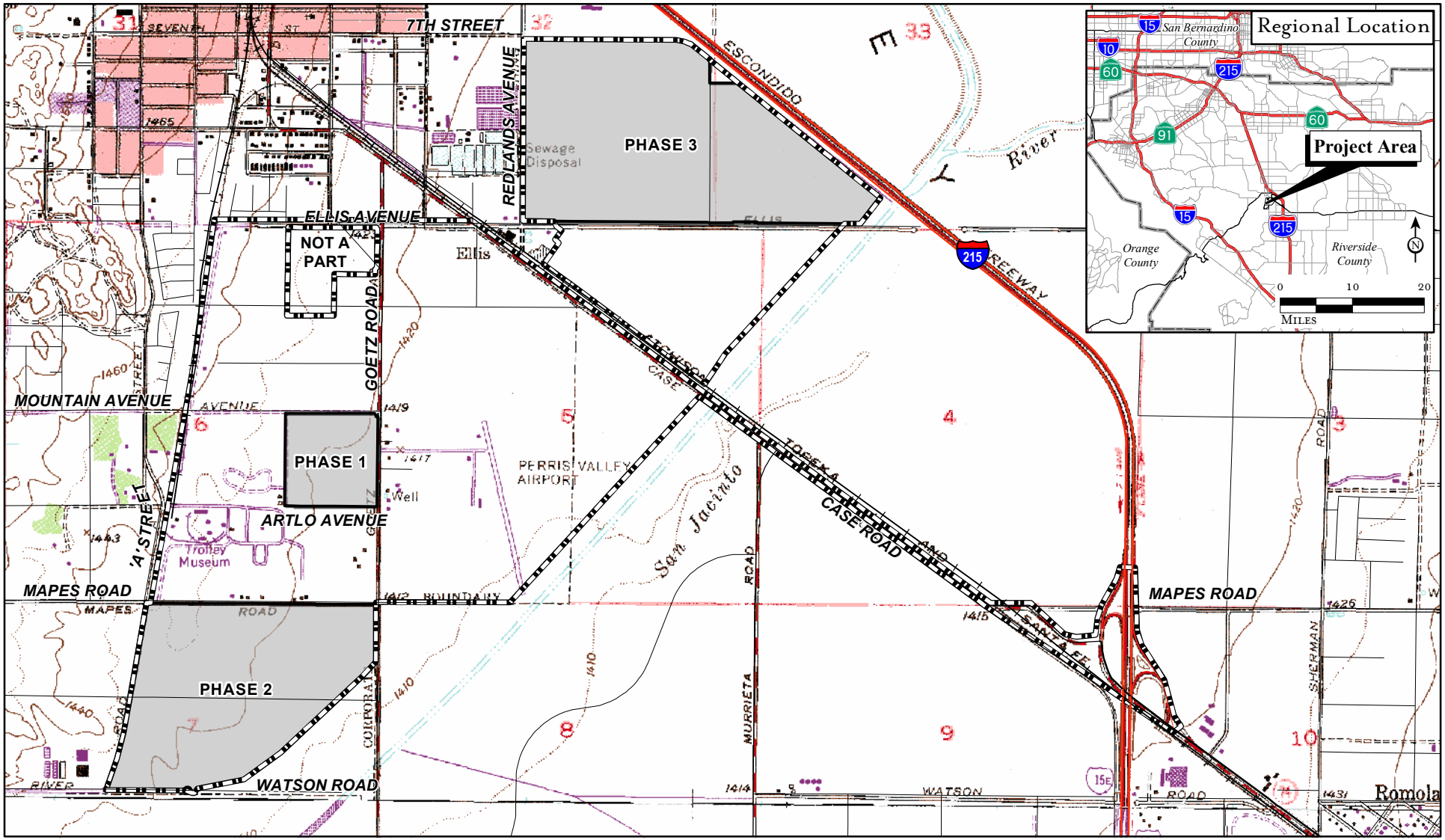
The project applicant proposes development of 7,399,291 square feet of industrial warehouse space, necessary parking, and associated on-site and off-site infrastructure improvements on approximately 454.7 acres. The project involves three non-contiguous sites, or phases, described as follows:

Phase 1: Airport Distribution Center. The Airport Distribution Center includes development of approximately 783,700 square feet of industrial warehouse space in one building on a 38-acre site located west of Goetz Road between Mountain Avenue and Artlo Avenue. Parking is provided for passenger vehicles as well as large trailers. Truck trailer parking, loading and unloading areas for the site are located on the north and south of the building and include 60 dock doors on each side of the building. A total of 171 trailer parking stalls will be provided. Parking for 385 passenger vehicles is located along the east and west frontage of the site. Landscaped areas intended for aesthetics and water quality features are located on the southern side of the site along the Artlo Avenue frontage.

Phase 2: First Park South Perris Distribution Center. The First Park South Perris Distribution Center includes approximately 3,448,734 square feet of industrial warehouse space in four buildings on an approximately 201 acre site located south of Mapes Road between "A" Street and Goetz Road. Truck trailer parking, loading and unloading areas are located on the east and west sides of the buildings. A total of 548 docking areas for the loading and unloading of trucks will be provided. Parking for up to 1,213 trucks and trailers is provided on site. Parking for passenger vehicles is located at the northern and southern portions of each of the buildings. A total of 1,904 passenger vehicle parking spaces will be provided. Rail access spurs are provided to this site near the west side of Buildings 1 and 2. Ultimate design of Phase 2 may include an extension of the drill track to accommodate direct rail cargo operations to the site.

Phase 3: First Park South 215 Distribution Center. The First Park South 215 Distribution Center includes approximately 3,166,857 square feet of industrial warehouse space in four buildings on an approximately 215.7 acre site. The location of the Phase 3 site is adjacent to the Perris Valley Storm Drain Channel and San Jacinto River at the northeast corner of Redlands Avenue and Ellis Avenue. A total of 492 docking areas for the loading and unloading of trucks will be provided. Parking for up to 733 trucks and trailers is provided on site. A total of 1,424 passenger vehicle parking spaces will be provided.

The project includes the construction and operation of the three development sites and the construction of off-site and on-site public utility and roadway improvements. Because of the lack of existing road, sewer, water, reclaimed water, and drainage facilities to serve not only the proposed project but the project vicinity in general, the project also includes sewer, water, reclaimed water, and drainage Master Plan improvements. In lieu of subsequent and separate environmental analysis of these Master Planned improvements, the environmental impacts from these infrastructure improvements are addressed in this EIR. The infrastructure improvements are described as follows:



LSA

FIGURE 1.1

PROJECT SITES

PROJECT AREA

0 1,000 2,000

Feet

SOURCE: USGS 7.5' Quads: Perris, Romoland (1978), CA; Thomas Bros. (2007).

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South Perris Industrial
Environmental Impact Report

Regional and Project Location

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Roadways. The project will include roadway infrastructure improvements that will accommodate project circulation needs and provide a circulation benefit to other development within the project area. The Master Plan of Roadway improvements are described and discussed in greater detail in Section 4.11 of this EIR.

Water Infrastructure Features. Potable water infrastructure improvements will be constructed as part of the project to accommodate each phase of development and provide a benefit to the surrounding properties in the project area. Based on the Water Demand Study prepared for the project, a total of approximately 9,900 linear feet of 18-inch pipeline and 2,650 linear feet of 12-inch pipeline will be required to adequately serve the project and subregional area. The Master Plan of Water improvements are described and discussed in greater detail in Section 4.12 of this EIR.

Reclaimed Water Plan. To reduce the project's reliance on potable water sources where feasible, reclaimed water will be utilized for landscaping and project operations. Reclaimed water pipelines do not exist in the project area. Pipelines will be extended from the southeast of the project into the project area to serve the three projects and subregional area, with approximately 5,300 linear feet of 8-inch pipeline required to adequately serve the project and subregional area. The reclaimed water lines within street frontages will be constructed as part of the three development phases. The Master Plan of Reclaimed Water improvements are described and discussed in greater detail in Section 4.12 of this EIR.

Sewer Infrastructure Features. Phase 1 of the project would include construction of sanitary sewer line connections to the existing 24-inch sewer line located in Case Road. All these lines would provide a gravity flow connection. Phase 2 of the project would include construction of sanitary sewer line connections to the Phase 1 sewer lines, eventually flowing to the existing 24-inch sewer line located in Case Road. The Phase 2 sewer improvements would require a new lift station to accommodate sewer flow to Case Road. Phase 3 of the project would include construction of sanitary sewer line connections to the existing 24-inch sewer line located in Case Road. The Phase 3 sewer improvements would require a new lift station to accommodate sewer flow to Case Road. A total of approximately 26,030 linear feet of sewer pipeline will be required to adequately serve the project and subregional area. The Master Plan of Reclaimed Water improvements are described and discussed in greater detail in Section 4.12 of this EIR.

Brine Line Infrastructure Features. There are currently no brine lines serving the study area. Brine is a term that is used very loosely in the area of water treatment. When it comes to desalination, brine is the liquid residual generated during the treatment process. It contains high concentrations of sodium chloride and other dissolved salts. It is commonly referred to as concentrate or reject in nanofiltration and reverse osmosis applications, and as regenerant in ion exchange systems. Brine can also be the result of industrial processes such as food processing. Brine is non-reclaimable and must be treated separately from wastewater or sanitary sewer systems. Brine can be used to produce chlorine and caustic soda (sodium hydroxide, NaOH) through electrolysis. Numerous industries such as the pulp and paper industry, textile industry, detergent industry, and bleach manufacturing industry use caustic soda as part of their processes.

The proposed project would construct separate brine lines to deliver brine and suspended solids from the development sites to future yet unplanned EMWD brine pumping locations. The force mains will share a trench with the sanitary sewer and will not involve additional encroachment into other areas.

1.3 AREAS OF CONTROVERSY

In addition to a summary of the significant effects that would result from the construction and operation of the proposed on-site uses, this EIR includes recommended mitigation measures that have been identified to reduce or avoid such effects. *CEQA Guidelines* §15123(b)(2) requires that areas of controversy known to the Lead Agency be stated in the EIR summary. The Lead Agency is the City of Perris.

1.4 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA (§15123[b][3]) requires that an EIR contain a summary of the project alternatives. The EIR is required to identify alternatives that were considered by the lead agency but were rejected as infeasible. Factors to be considered when addressing the feasibility of alternatives may include failure to achieve most of the project objectives; infeasibility; and/or inability to avoid significant environmental impacts, compatibility with adjacent uses, and consistency with local planning policies, An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives required in an EIR is governed by a "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. Of the alternatives considered, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Pursuant to CEQA, "feasible" has been defined as "…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."[1]

Four alternatives have been identified for further analysis in this EIR. Summaries of each alternative have been provided below. More detailed descriptions of each project alternative are provided in Section 6.0.

1.4.1 Alternatives Carried Forward for Analysis

Four alternatives are analyzed in greater detail in Section 6.0 of this EIR. The alternatives are summarized as follows:

1.4.1.1 Alternative 1: No Project Alternative

The No Project Alternative would result in a continuation of existing conditions on the three development sites. For this reason, it represents a baseline against which the impacts of the proposed project would be measured. Because no development would be assumed in this alternative within unincorporated areas, none of the existing roadways or infrastructure facilities would be expanded.

Impacts associated with this alternative, when compared to the proposed project, would not occur. In the absence of development, no impacts would occur and this alternative would be the environmentally superior alternative. However, disallowing development of the sites, as suggested by this alternative, would not fulfill any of the objectives of the proposed project. Retention of the Phase 1 project site in its current condition would not expand employment opportunities to residents of the

[1] Guidelines for California Environmental Quality Act, §15364.

City. Retaining the Phase 2 and Phase 3 sites in their current undeveloped condition would not generate the revenue (e.g., property tax) that could augment the City's current revenue stream.

1.4.1.2 Alternative 2: Reduced Intensity Alternative

With the intent of avoiding or substantially reducing significant impacts created by the project's traffic, air quality, and noise impacts, the City has considered a Reduced Intensity Warehouse Alternative. This alternative includes development of the three sites with approximately 5,550,000 square feet of industrial warehouse space, resulting in a 25 percent reduction in building area. Under this alternative, the proposed warehouse uses would represent a net decrease of approximately 25 percent (1,850,000 square feet) as compared with the proposed project.

1.4.1.3 Alternative 3: Elimination of Rail Component Alternative

Implementation of this alternative includes development of the three sites with the same amount of industrial warehouse space (7,399,291 square feet) but with no rail service to the Phase 2 site. This alternative would result in a reduction in rail related air quality, noise, and traffic (rail crossing) impacts while increasing truck related air quality, noise, and traffic impacts. All other impacts attributable to developing the 7,399,291 square feet of warehouse space would be the same as the proposed project.

1.5 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved; this includes the choice among the alternatives and whether or how to mitigate significant impacts. The major issues to be resolved for the proposed project include decisions by the City of Perris as to whether:

- This EIR adequately describes the potential environmental impacts of the proposed project;
- The recommended mitigation measures should be adopted or modified;
- Additional mitigation measures need to applied;
- The project should or should not be approved as proposed; or
- The project should be modified based on the alternatives considered in this EIR.

1.6 IMPACTS, MITIGATION, AND LEVEL OF IMPACT SUMMARY TABLE

Table 1.A, South Perris Industrial Environmental Summary, delineates the environmental impacts for various issues of the proposed project, discussed in this EIR. Table 1.A delineates the environmental impacts for various issues of the proposed project discussed in the Initial Study that accompanied the NOP (refer to Appendix A) as well as the impact discussion contained in the body of this EIR. This table serves as a tracking tool designed to track both standard requirements and mitigation measures identified in the Initial Study and EIR. The mitigation measures will be incorporated into the project's Mitigation Monitoring Reporting Program (MMRP) that will be included as part of the Final EIR.

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.1 AESTHETICS		
Less than Significant Impacts		
4.1.5.1 Scenic Vistas: As described in the City's General Plan, virtually all development activity envisioned in the General Plan would obstruct views of scenic vistas. However, due to the flatness of the area and the orientation of the roadway network, the preservation of scenic vistas would occur through view corridors established by the roadway network. Because the proposed project is consistent with development envisioned in the General Plan, and based on the narrow definition of what constitutes a scenic vista as described in the City's General Plan EIR, the potential impact to scenic vistas would be less than significant.	No mitigation is required	Not Applicable
4.1.5.2 Scenic Resources: As described in the City's General Plan, while scenic resources are present in the City, the City does not designate a single scenic resource notable by virtue. Additionally, there are no officially designated scenic highways in the City of Perris. Therefore, because there are no scenic resources or scenic highways identified within the City, no impact would occur and no mitigation is required.	No mitigation is required	Not Applicable
4.1.5.3 Visual Character: Although the visual characteristic of the project site would change, the proposed project would replace the existing semi-developed (Phase 1) and vacant parcels (Phases 2 and 3) with an attractive, well designed development through the use of architectural elements, landscaping, and design of the project site. In addition, the proposed project would be designed and constructed per applicable City Municipal Code and General Plan standards. Therefore, because no demonstrable negative aesthetic effect to the existing visual character or quality of the project site or its surroundings is anticipated to result from the proposed project, no significant impact related to this issue would occur.	No mitigation is required	Not Applicable
4.1.5.4 Light and Glare: The proposed project is not expected to significantly increase the amount of daytime glare in the project area. All development in the City, which	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
includes light generated from commercial buildings and parking lots, is required to adhere to lighting requirements contained in the City's Zoning Code and Riverside County Ordinance 655. As such, adherence to these measures would be mandatory and enforceable through the review and approval (or non-approval) of the project plans. Adherence to the City's Zoning Code and Riverside County Ordinance 655 would ensure that any building or parking lighting would not significantly impact adjacent uses.		
Cumulative Impacts: The cumulative effect on scenic vistas from the proposed project would be less than significant as scenic vistas would not be affected from viewpoints within certain project locations and adjacent roads. Development of lands within the City would result in the cumulative conversion from open space to a more urbanized land use. However, this is a continuing development trend currently occurring within the southern portion of the City that has been anticipated in the City's General Plan. The proposed project, in conjunction with other cumulative projects would be developed in a manner consistent with existing development trends in the City. Cumulatively, more lighting would be introduced into the area by proposed, existing, and future development. As with past and currently proposed development, cumulative lighting-related impacts would be reduced through the adherence to applicable City lighting standards. No cumulatively significant lighting impact would result from implementation of the proposed project.	No mitigation is required	Not Applicable
Significant Impacts		
No significant aesthetic impacts were identified.	Not Applicable	Not applicable
4.2 AGRICULTURAL RESOURCES		
Less than Significant Impacts		
4.2.4.1 Conversion of Prime, Unique, or Statewide Important Farmland: None of the three project sites or the area in which the rail line extension, roadway improvements, or utility infrastructure would occur is currently designated Prime, Unique, or Statewide Important Farmland. No conversion of Prime, Unique, or Statewide	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Important Farmland would occur. In the absence of any conversion of such farmland, no impact related to this issue would occur. Therefore, no mitigation is required.		
4.2.4.2 Williamson Act Contract: The Phase 1, Phase 2, and Phase 3 sites of the proposed project are not covered under a Williamson Act Contract; therefore, the project would not conflict with any Williamson Act contract. Because the project would not conflict with any Williamson contract, no impacts to this issue would occur with implementation of the proposed project. No mitigation is required.	No mitigation is required	Not Applicable
4.2.4.3 Conflict with an Existing Agricultural Zone: As identified in the City's General Plan, currently, there are no agricultural zones on any of the project sites or any of the surrounding properties. Because the Phase 1, Phase 2, and Phase 3 sites are not zoned for agricultural uses, and because surrounding areas, which include the area where infrastructure improvements would occur, are not zoned for agricultural uses, implementation of the proposed project would not conflict with existing zoning for agricultural uses. In the absence of a significant impact, no mitigation is required.	No mitigation is required	Not Applicable
4.2.4.4. Conversion of an Agricultural Operation to a Non-Agricultural Use: The Phase I site is either developed or vegetated primarily with ornamental landscaping. The limited size of the Phase 1 site, the absence of on-site agricultural uses, and the limited amount of agricultural operations within the ZOI for the site results in a low SA subscore. The LESA score for the Phase 1 site does not exceed the thresholds that would indicate a significant agricultural resource impact. While the Phase 2 site has been leased for farming in the past, no active planting or cultivation has occurred on the site for at least three years. Due to the limited amount of surrounding agricultural land, and because of the absence of water infrastructure in the project vicinity, irrigated production is not feasible and the SA subscore does not exceed 20 points. Based on this subscore, the conversion of the Phase 2 site would not result in a significant agricultural resource impact. While the	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Phase 3 site has been leased for farming, no active planting or cultivation of the site has occurred for at least three years. While the Phase 3 site is the largest of the three sites, the soils on this site are of a lower quality. Therefore, the LE subscore for this site is less than 20. Based on this score, the conversion of the Phase 3 site does not result in a significant agricultural resource impact. As established by the completion of the LESA model for each of the sites, no significant agricultural resource impact would result from the conversion of the sites to non-agricultural uses. In the absence of a significant impact, no mitigation is required.		
4.2.4.5 Conversion of Existing or Future Agricultural Operations on Adjacent Properties: The City's 1991 General Plan Land Use Element eliminated the "agricultural" land use designation. Accordingly, the EIR prepared in conjunction with the 1991 General Plan identified the conversion of agricultural land as a significant cumulative impact. Findings and facts indicating that certain social and economic factors outweighed the cumulative impacts associated with conversion of agricultural land to non-agricultural use and a Statement of Overriding Considerations were adopted by the City in approving the General Plan and certifying the EIR. As the impacts associated with the conversion of agricultural land had been previously identified as significant (and appropriately overridden) in the City's 1991 General Plan EIR, no significant agricultural resource impact resulting from implementation of the City's 2005 General Plan would occur. The results of the three LESA models concluded that the conversion of the sites to non-agricultural uses would not result in a significant agricultural resource impact. Given the pattern of development in the City, the City's vision for the project area as evidenced by the General Plan and zoning, the approved and proposed development in the project area, and the consideration of adjacent uses in the preparation of the LESA analysis, it is reasonable to conclude development of the site's as proposed project would not significantly hasten or otherwise increase the pressure for owners to convert adjacent agricultural land to	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
non-agricultural uses. In the absence of a significant impact, no mitigation is required.		
4.2.4.6 Conversion of Locally Important Farmland: While the project sites have been designated Locally Important Farmland, due to the on-site soil characteristics, the local land use and planning designations of the sites, and the economic and regulatory hurdles facing local farmers, it is reasonable to conclude that the intensification of agricultural uses within the project limits is not feasible. High-yield or cash crops are not a principal characteristic of Perris' agricultural production or economy. While the Phase 2 and 3 have leased to farmers in the past, no active planting or cultivation has occurred on these sites for at least three years. Use of the project sites for agricultural production does not significantly contribute to the local or regional agricultural economy. Because of the limited productivity of on-site soils, coupled with the lack of significant on-site agricultural activity and the restrictive factors cited above it, no significant impact associated with the conversion of Locally Important Farmland would result from development of the proposed uses. No mitigation is required.	No mitigation is required	Not Applicable
Cumulative Impacts: The cumulative area for agricultural resource impacts is Riverside County. The agricultural acreage inventoried in Riverside County by the FMMP has declined in each of the five past reporting cycles. Similarly, the total planted acreage in Riverside County has decreased every year over the past five years While agricultural land is a finite resource, the City, through its designation of the sites for non-agricultural uses in its 1991 and 1995 General Plans has previously considered that continuing development pressures in the City and region would result in the conversion of agricultural land to non-agricultural uses. The value of agricultural crops produced in the County during 2007 totaled $1.257 billion. The limited nature of the existing on-site agricultural activity does not significantly contribute to the overall economic viability of the City or County. The utilization of the property sites for low quality agricultural activity would impede the City from achieving the goals and objectives set forth in its General	No mitigation is required ~~Less Than Significant Impact~~	Not Applicable ~~Significant and Unavoidable~~

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Plan. The City has recognized (as evidenced in its General Plan Land Use Element and the absence of agricultural preservation mitigation program) that the eventual conversion of agricultural uses within the City would occur and is in fact planned for. As stated in the discussion of Impact 4.2.4.6, the viable continuation of any on site agricultural operations is not likely. Further, Section 4.2 of this EIR has demonstrated that the utilization of the project sites for the proposed uses does not create a significant agricultural impact. For these same reasons, the utilization of the project sites for the proposed uses does not create any significant cumulative agricultural impacts. Therefore no mitigation is required.		
Significant Impacts		
No site-specific significant agricultural resource impacts were identified.	Not applicable	Not Applicable
4.3 AIR QUALITY		
Less than Significant Impacts		
4.3.5.1 Air Quality Management Plan Consistency: The proposed project envisions the development of warehouse distribution uses on approximately 455 acres. The development scenario proposed is within the scope of what would be allowed under the current General Plan land use designations (General Industrial and Specific Plan) and is consistent with the uses permitted under the proposed General Industrial designation. Because the uses proposed under the proposed project are consistent with the City's General Plan and local and regional plans, it is also considered to be consistent with the AQMP. The proposed project would add jobs resulting from the development of the industrial uses. This type of development is consistent with the goals of the AQMP for reducing the emissions associated with new development. Based on this information, the proposed project would not impair implementation of the AQMP, and would, therefore, have a less than significant impact on implementation of the AQMP. The proposed project does not include a residential	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
component; therefore, no significant population growth would result from the development and occupation of the proposed on-site uses than what was accounted for in the development of the 2007 AQMP. The proposed project would accommodate the growth that has been projected for the project vicinity and subregion through the construction of needed infrastructure, thus removing an impediment to growth within the project area. Emissions projections used to establish SCAQMD attainment objectives reflect adopted regional and local land use plans. Therefore, the emissions associated with the proposed project are within the amounts already accounted for in the AQMP, and no significant inconsistency with the AQMP would occur.		
4.3.5.2 Long-Term Microscale (CO Hotspot) Impacts: The Basin is classified as in attainment for CO. Background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Since the Basin is in attainment for CO and ambient levels of CO are below state and federal standards, the project would not exceed CO standards and a quantitative CO hotspot analysis is not required. A less than significant impact would occur and no mitigation is required.	No mitigation is required	Not Applicable
4.3.5.3 Non-Carcinogenic Acute Health Risk Impacts: The operations expected to occur at these facilities will not emit any toxic chemicals in any significant quantity other than diesel exhaust. There will be no machinery to emit any toxic air pollutants that have short-term acute health effects; therefore, the potential for short-term acute exposure from project-related toxic emissions is less than significant.	No mitigation is required	Not Applicable
4.3.5.4 Odors: During construction, various diesel-powered vehicles and equipment in use on the site would create odors. With the exception of short-term construction-related odors, the proposed uses do not include uses that are	No mitigation is required	Not Applicable

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generally considered to generate offensive odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on site would be adequately managed. No significant impact related to this issue would occur.		
4.3.5.5 Phase 2 Soil Import Equipment Emissions: Soil Import activities for Phase 2 would result in combustion emissions from heavy-duty construction vehicles, haul trucks, and vehicles transporting the construction crew. The equipment emissions associated with the import of soil to the Phase 2 project site would not exceed the SCAQMD daily regional and localized pollutant thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ resulting in a less than significant impact.	No mitigation is required	Not Applicable
Significant Impacts		
Impact 4.3.6.1 Construction Equipment Exhaust Emissions: Grading and other construction activities would result in combustion emissions from heavy-duty construction vehicles, haul trucks, utility engines, and vehicles transporting the construction crew. Construction equipment/vehicle emissions during proposed on-site grading periods would exceed the SCAQMD daily thresholds for VOC, NO_X, and CO. This remains a significant impact requiring mitigation.	**4.3.6.1A** Prior to the issuance of grading permits, the project applicant shall require by contract specifications that construction operations rely on electricity from infrastructure (e.g., power poles) surrounding the construction site ~~when feasible~~ instead of using portable diesel- or gasoline-powered generators. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City. **4.3.6.1B** Prior to the issuance of grading permits, the project applicant shall require by contract specifications that construction activities are timed so as to not interfere with peak hour traffic and minimize obstruction of through traffic lanes adjacent to the site. Dedicated turn lanes for the movement of construction trucks and equipment shall be provided ~~as needed~~ for each phase of development. Construction trucks shall be routed away from congested streets and sensitive receptor areas ~~to the extent feasible~~. ~~If necessary, a~~ A flag person shall be retained by the construction supervisor to maintain safety adjacent to existing roadways. Contract specifications shall be included in the proposed	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	project construction documents, which shall be reviewed by the City. In addition, the project applicant shall require by contract specifications the following provisions: ▪ Prohibit truck idling in excess of five minutes, both on- and off-site; ▪ Configure construction parking to minimize traffic interference; ▪ Improve traffic flow by signal synchronization; and ▪ All vehicles and equipment will be properly tuned and maintained according to manufacturers' specifications. **4.3.6.1C** The construction contractor shall utilize alternative-fueled construction equipment to the maximum extent feasible. All diesel-powered construction equipment shall meet or exceed Tier III standards, or shall be equipped with CARB-verified oxidation catalysts and diesel particulate filter emission controls, using the greatest control efficiency for the specific category of equipment. The construction contractor shall demonstrate that these verified/certified technologies are available to be used at the time of project construction. **4.3.6.1D** The construction contractor shall utilize pre-coated, pre-colored, and naturally colored building materials when feasible to minimize the amount of VOC emissions from painting activities. ~~To the extent practicable, c~~Coatings and solvents with a VOC content lower than required under SCAQMD Rule 1113 or no-VOC paints and architectural coatings shall be employed. A list of low/no-VOC paints is provided at the SCAQMD website (www.aqmd.gov/prdas/brochures/paintguide.html). All paints shall be applied using either high-volume low-pressure (HVLP) spray equipment or by hand application, or	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	other application techniques with equivalent or higher transfer efficiency. Specific requirements shall appear in the project construction plans and construction documents.	
Impact 4.3.6.2 Construction Fugitive Dust: Emissions of PM_{10} and $PM_{2.5}$ exceed the regional threshold that would occur for construction activity. PM_{10} and $PM_{2.5}$ emissions are a significant impact requiring mitigation.	**4.3.6.2A** In order to reduce particulate matter emissions during project construction, the project applicant shall apply non-toxic soil stabilizers or a comparable dust suppressant to all inactive construction areas (previously graded areas inactive for five consecutive days or more). Chemical soil stabilizers, if used, shall be applied according to manufacturers' specifications. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding soil stabilization. **4.3.6.2B** In order to reduce particulate matter emissions during project construction, the project applicant shall establish a vegetative ground cover within 21 working days after active operations have ceased. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding revegetation of disturbed areas. **4.3.6.2C** In order to reduce particulate matter emissions during project construction, the project applicant shall water exposed surfaces three times a day. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding watering of the site. **4.3.6.2D** In order to reduce particulate matter emissions during construction, the project applicant shall enforce speeds limits on unpaved roads to less than 15 miles per hour. **4.3.6.2E** In order to reduce particulate matter emissions during clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, the project applicant shall utilize water trucks or sprinkler systems to prevent dust from leaving the site.	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	4.3.6.2F In order to reduce particulate matter emissions during construction, the project applicant shall utilize water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. **4.3.6.2G** In order to reduce particulate matter emissions during construction, the project applicant shall temporarily terminate soil disturbance activities when high winds exceeding 25 miles per hour (measured as instantaneous gusts) make dust control extremely difficult. **4.3.6.2H** In order to reduce particulate matter emissions during construction, the project applicant shall require soil stockpiled for more than two days to be covered, kept moist, or treated with soil binders to prevent dust generation. **4.3.6.2I** In order to reduce particulate matter emissions during construction, the project applicant/contractor shall reduce "spill-over" effects by preventing soil erosion, washing dirt from vehicles entering public roadways, and washing/sweeping project access to public roadways on a regular schedule. All streets shall be swept once a day if visible soil materials are carried to adjacent streets. Wheel washers shall be installed where vehicles enter and exit unpaved roads onto paved roads. Street sweepers shall comply with SCAQMD Rule~~s~~ 1186 ~~and 1186.1~~. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding street sweeping and wheel washing. **4.3.6.2J** In order to reduce particulate matter emissions during construction, the project applicant shall require all trucks hauling dirt, sand, soil, or other loose materials be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	accordance with the requirements of California Vehicle Code Section 23114. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding covering of trucks and maintenance of freeboard. **4.3.6.2K** The project proponent shall appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues in relation to PM_{10} generation. Signage with this contact information shall be made available for each phase site. **4.3.6.2L** In order to reduce particulate matter emissions during construction, the project applicant/ contractor shall apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces. **4.3.6.2M** Prior to the issuance of grading permits for each development site, the project developer shall submit to the SCAQMD, SCAQMD Rule 403 Form 403N (Large Operation Notification Form) and contact SCAQMD engineering and compliance staff.	
Impact 4.3.6.3 Long-Term Project-Related Emissions Impacts: Project-related emissions for CO, NO_X, VOC, PM_{10}, and $PM_{2.5}$ would exceed the SCAQMD daily emissions thresholds during the operational phase of the project. This is a significant impact requiring mitigation.	**4.3.6.3A** In order to reduce the project's operation diesel particulate matter emissions, prior to the issuance of building permits, the project applicant shall require by contract specifications that signs shall be posted on the site in loading bay areas informing truck drivers of the California Air Resources Board regulations that limit truck idling to no more than five (5) minutes both on- and off-site. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/successor-in-interest and shall be reviewed by the City. **4.3.6.3B** In order to reduce the project's operational diesel particulate matter emissions, prior to the issuance of building permits, the project applicant	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	shall require by contract specifications that electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary idling of main and auxiliary truck engines. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/ successor-in-interest and shall be reviewed by the City. **4.3.6.3C** In order to reduce the project's operational diesel particulate matter emissions, prior to issuance of building permits, the project applicant shall require by contract specifications that all on-site forklifts and other equipment will not be diesel-powered, but required to be electric or some other type of low-emission technology available at the time of development. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/ successor-in-interest and shall be reviewed by the City. **4.3.6.3D** As part of building plan approval, the project proponent shall include energy efficient measures that exceed California Title 24 standards by 30 percent for all buildings. Energy efficient measures may include (but are not limited to): o Installation of efficient lighting and lighting control systems (electronic dimming ballasts and computer-controlled daylight sensors, low-mercury bulbs, and bulb reduction); o Use of daylight as an integral part of lighting systems in buildings (e.g., skylights); o Installation of light colored "cool" roofs, cool pavements, and strategically placed shade trees; o Provision of information on energy management	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	services for large energy users; o Installation of energy efficient heating and cooling systems, appliances and equipment, and control systems; o Installation of light emitting diodes (LEDs) for exterior signs and landscaping; and limiting the hours of operation of outdoor lighting. **4.3.6.3E** As part of building plan approval, the project proponent shall accommodate renewable energy facilities. The project shall be structurally designed to be ready to accept the installation of solar and/or wind power systems (subject to Southern California Edison's program), solar and/or tankless hot water heaters, and energy-efficient heating ventilation and air conditionings (HVAC). Additionally, the project proponent shall educate consumers about existing incentives. **4.3.6.3F** As part of building plan approval, the project proponent shall include transportation and motor vehicle reduction measures. Transportation and motor vehicle reduction measures shall apply to the developer/successor-in-interest and shall ~~may~~ include (but are not limited to): o Limit idling time for commercial vehicles, including delivery and construction vehicles to five minutes or less, both on- and off-site; o Use low or zero-emission vehicles, including construction vehicles; o Require implementation of ~~Promote~~ ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides for all	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	initial and future occupants. o For large employers (employers who employ 250 or more employees), provide facilities that encourage bicycle commuting, including (e.g., locked bicycle storage or covered or indoor bicycle parking); and o Create bicycle lanes and walking paths directed to the location of schools, parks, and other destination points. **4.3.6.3G** As part of building plan approval, the project proponent shall include the following project design and operational/health effect measures: o Project-generated trucks servicing the proposed project shall be restricted from residential areas and schools and, a specific truck route shall be delineated on the circulation/transportation plan, implemented with the use of signage, to direct project-related trucks away from sensitive receptors (i.e., ensure that trucks will not enter residential areas or pass by other sensitive receptor areas); o Design the warehouse/distribution center and any future expansion such that there are no trucks queuing outside each facility; o Post signs outside of each facility providing a phone number where neighbors can call if there is a specific issue; and o Improve traffic flow by signal synchronization.	
Impact 4.3.6.4 Localized Construction Equipment Exhaust Emissions Impacts: Emissions of NO_x, PM_{10} and $PM_{2.5}$ exceed the localized threshold that would occur for construction activity. NO_x. PM_{10}, and $PM_{2.5}$ emissions are a significant impact requiring mitigation.	Previously referenced **Mitigation Measures 4.3.6.1A** through **4.3.6.1D** and **4.3.6.2A** through **4.3.6.2MJ.**	Significant and Unavoidable
Impact 4.3.6.5 Project-Related Localized Operational Emissions Impacts: The primary emissions from	Previously identified mitigation measures **4.3.6.3A** through **4.3.6.3C**.	Significant and Unavoidable

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operational activities include, but are not limited to, NO_X, CO, PM_{10}, and $PM_{2.5}$ combustion emissions from stationary sources and/or on-site mobile equipment. Operational emission rates for PM_{10} and $PM_{2.5}$ exceed the LST thresholds at 25 meters. The emissions of PM_{10} and $PM_{2.5}$ are a significant impact and require mitigation.		
4.3.6.6 Carcinogenic and Chronic Project-Related Emissions Impacts: The construction period of the project lasts only a short time, relative to the length of time required for carcinogenic and chronic health impacts. Health risk calculations for diesel exhaust (both cancer and non-cancer) are based on risk values established by the OEHHA for chronic exposure durations of 24 hours/day for 70 years for conforming uses that are considered sensitive receptors. Because sensitive receptors would not be exposed to emissions resulting from construction activities for a significant duration, a construction health risk analysis was not warranted. The proposed project would expose nearby sensitive receptors to substantial diesel particulate matter emissions that may contribute to carcinogenic and chronic cancer risks. Long-term operational emissions would result from the operation of diesel-powered trucks and train engines delivering and removing supplies and materials to and from the project site and the use of diesel-powered forklifts and hostlers typically associated with industrial warehouse uses. The primary health risk from heavy-duty trucks, train engines, and warehouse equipment emissions is diesel particulate exhaust. The area surrounding the majority of the project site is zoned and designated for industrial land uses under the City's General Plan. However, all areas in the immediate project vicinity will be exposed to DPM concentrations which exceed the SCAQMD cancer risk threshold of 10 per million	**4.3.6.6A** In order to reduce the project's operational DPM emissions, signs shall be posted on the site in loading bay areas informing truck drivers of the California Air Resources Board regulations that limit truck idling to no more than 5 minutes. **4.3.6.6B** In order to reduce the project's operational DPM emissions, electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary idling of main and auxiliary truck engines. **4.3.6.6C** In order to reduce the project's operational DPM emissions, all on-site forklifts will not be diesel powered. **4.3.6.6D** If the locomotives that serve the Phase 2 site are not equipped with anti-idling devices, an idling restriction shall be enforced by developer/ successor-in-interest. Locomotives not equipped with anti-idling devices shall be manually limited to no more than 15 consecutive minutes of idling. **4.3.6.6E** The developer/successor-in-interest for the Phase 2 site shall establish a complaint line for complaints regarding smoke, noise, and idling in excess of 15 minutes for locomotives idling on the Phase 2 site. This complaint line shall be a toll-free 1-800 number and posted on signs within the Phase 2 site.	Less Than Significant
4.3.7.1 Cumulative Short-Term Air Quality Impacts: The cumulative area for air quality impacts is the South Coast Air Basin. The project would contribute criteria pollutants to the area during project construction. The South Coast Air	Previously referenced **Mitigation Measures 4.3.6.1A** through **4.3.6.1D** and **4.3.6.2A** through **4.3.6.2MJ.**	Significant and Unavoidable

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Basin is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone at the present time; therefore, the construction of the proposed project would exacerbate nonattainment of air quality standards within the South Coast Air Basin and contribute to short-term cumulatively significant air quality impacts.		
4.3.7.2 Cumulative CO Hot Spot Impacts: No significant CO hot spot impacts would occur. It is anticipated that CO emissions in the future year will decrease with advances in technology. Background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Based on the analysis, because no CO hot spot impacts would occur, it is reasonable to assume that a less than significant cumulative CO impact would occur.	No mitigation is required	Less Than Significant
4.3.7.3 Cumulative Long Term Air Quality Impacts: As discussed in Section 4.3.5.1, the proposed project has been determined to be compliant with the 2007 AQMP goals. The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. The Final 2007 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve Federal standards for healthful air quality in the Basin. As previously discussed the AQMP considers the planned land uses and growth within the Basin based on the General Plan land uses that area proposed. Therefore land uses that may have significant air quality impacts are considered within the AQMP in addition to land uses within the Basin that may have no impacts. As all projects and growth are considered and not just a single project it is possible for a balance to be achieved over the 20-year time horizon and thus a project can be consistent with the strategies included in the AQMP while having air quality impacts without reducing the potential for the achievement of AQMP goals.	No mitigation is required	Less Than Significant

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4.3.7.4 Diesel Particulates: The proposed project will generate new truck trips and new rail trips; the generation of new truck trips and rail trips as a result of the proposed project would result in a cumulatively significant contribution to the diesel emissions in the region. However, it is important to note that diesel emissions identified in this EIR substantially overstate future particulate emissions from diesel engines as cleaner engines required by law in the near future will be substantially cleaner than those existing in current fleets. Considering the 70-year time period over which cancer risk exposure is estimated, applying the average heavy-duty diesel truck diesel particulate matter emissions fleet emission rate over a 70 year period using data available from the three emission control program identified above is estimated to reduce cancer risk by 50 percent. Nevertheless, cumulative diesel particulate matter impacts are significant and unavoidable.	Previously referenced **Mitigation Measures 4.3.6.6A** through **4.3.6.6E~~C~~.**	Less Than Significant
4.3.7.5 Global Climate Change: The proposed project would be required to adhere to standards contained in Title 24 and exceed them by 30% in addition to requirements set forth by the respective utility providers, and because the proposed project would result in the construction of a building with project features identified in the Leadership in Energy and Environmental Design (LEED) program, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy. The proposed project would be consistent with all feasible and applicable strategies to reduce greenhouse gas emissions in California. Therefore, the impact of the proposed project, based on these specifications, would be less than significant. Additionally, the proposed project is in compliance with all the applicable CARB Early Action Strategies, the GHG emissions resulting from project operation are considered less than significant. Implementation of the conditions of approval, in accordance with the California Attorney General's proposed mitigation measures, may reduce the emission of greenhouse gases attributable to the project through vehicle emission	Previously referenced **Mitigation Measures 4.3.6.3D** through **4.3.6.3G~~F~~** require that the project install energy-efficient measures that exceed California Title 24 standards by 30% for all buildings, accommodate renewable energy facilities, and include transportation and motor vehicle reduction measures. These mitigation measures will reduce the potential GHG emissions resulting from implementation of the proposed project. **4.3.7.5A** As part of building plan approval, the project proponent shall include water conservation and efficiency measures. Water conservation and efficiency measures may include (but are not limited to): o Creation of water-efficient landscapes; o Installation of water-efficient irrigation systems and devices such as soil moisture-based irrigation controls; o Use of reclaimed water for landscape irrigation in new developments and on public property	Less than Significant for project-specific impacts Significant and Unavoidable for cumulative impacts

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reductions, vehicular trip reductions, HFC emission reductions, recycling programs, increases in building and appliance energy efficiencies, and decreased water use; however, it is not possible to specifically quantify the reduction in greenhouse gases that will result from implementation of the strategies and programs described above. However, the project is consistent with the strategies to reduce California's emissions to the levels proposed by Executive Order S-3-05. In addition, the impacts on climate change of a project of this size, considered in isolation, would be analytically indistinguishable from the background. For these reasons, the project specific incremental contribution to climate change at the project level is less than significant and no mitigation is required over and above the conditions of approval and incorporation of LEED principles and design measures. Although implementation of the detailed measures contained in this EIR may reduce the emission of greenhouse gases attributable to the project through vehicle emission reductions, vehicular trip reductions, HFC emission reductions, recycling programs, increases in building and appliance energy efficiencies, and decreased water use, it is not possible to specifically quantify the reduction in greenhouse gases that will result from implementation of the strategies and programs described above. Operational emissions of VOC, NOX, and CO would continue to exceed the daily regional thresholds of significance recommended by the SCAQMD. Therefore, the City concludes that the project contributions to Statewide greenhouse gas impacts are cumulatively considerable.	including the installation of infrastructure to deliver and use reclaimed water; o Design buildings to be water-efficient including the installation of water-efficient fixtures and appliances; o Restricting water methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff; o Implementing low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment; and, o Devising a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project. **4.3.7.5B** As part of building plan approval, the project proponent shall include solid waste reduction measures. Solid waste reduction measures may include (but are not limited to): o Reuse and recycle of construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard); and, o Provision of interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. **4.3.7.5C** As part of building plan approval, the project proponent shall implement all applicable design features identified in Table 4.3.CC and 4.3.DD which include: o Recycling and/or salvaging 75% of	

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	nonhazardous construction and demolition waste, and developing and implementing a construction waste management plan; o Providing an easily accessible area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling; o Reducing the potable water consumption for irrigation by 50%; o Maximizing water efficiency within the project resulting in a 30% reduction of water use, excluding irrigation, than the baseline after meeting Energy Policy Act of 1992 guidelines for fixture performance; o Optimizing energy performance and achieving a 30% reduction in energy use. o Providing preferred parking for low-emitting and fuel efficient vehicles for 5% of total vehicle parking; o Providing secure bike racks or storage for 3% or more of all building users; and o The project involves the use of a light colored coating for the building roof top.	
4.4 BIOLOGICAL RESOURCES		
Less than Significant Impacts		
4.4.5.1 Endangered and Threatened Species: No occurrence of any federal or State endangered/threatened species was detected during the focused biological resource surveys conducted within the BSA. As no endangered or threatened species have been located within the limits of the BSA, no significant impact related to this issue would occur. In the absence of a significant impact, no mitigation is required.	No mitigation is required	Not Applicable

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4.4.5.2 Riparian Habitat or Other Sensitive Natural Communities: None of the basins or complexes observed over the course of the biological resource surveys exhibited signs of being natural habitat. Furthermore, no vernal pool endemic plant species were observed within the study area. Because the basins and pool complexes within the BSA do not possess required habitat requirements, these habitats do not meet the MSHCP definition of Riparian/Riverine Habitat. No significant impact related to the basin or pool features would result from the development or operation of the proposed project. The BSA is located within a MSHCP designated Criteria Area Plant and Narrow Endemic Plant Survey Area. In accordance with MSHCP requirements, focused special status plant surveys were conducted. Throughout the focused plant surveys, only one special status species (smooth tar plant) was identified within the BSA. While this species is not identified as endangered or threatened, it is a species covered under the MSHCP. This species was indentified in two locations within the BSA; the first near the Perris Valley Airport north of Mountain Avenue, and the second north of Ellis Avenue and south of I-215. Neither of these locations is within the project's proposed area of disturbance; therefore, the development of the proposed uses would not impact the habitat for any special status plant species.	No mitigation is required	Not Applicable
4.4.5.3 Adopted Habitat Conservation Plans: The project site is subject to the provisions of two Habitat Conservation Plans, the Western Riverside County Habitat Conservation Plan, and the Stephens Kangaroo Habitat Conservation Plan. The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA), These fees are in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP. The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves	No mitigation is required	Not Applicable

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established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local mitigation fee are required.		
4.4.5.~~4~~5 Habitat Fragmentation/Wildlife Movement: The proposed development sites have been previously disturbed and diminished in quality either through past agricultural uses or the development of industrial uses. Due to the disturbed condition of the development sites and adjacent areas, development of the proposed project will not result in significant habitat fragmentation or substantially affect established wildlife corridors or wildlife movement. As no significant habitat fragmentation would result from the development of the proposed uses, no mitigation is required.	No mitigation is required	Not Applicable
4.4.5.~~5~~4 Adopted Policies and/or Ordinances: No policies or ordinances protecting biological resources other than compliance with State and federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are identified by the City. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the project site, no impact would occur. No mitigation is required.	No mitigation is required	Not Applicable
Significant Impacts		
4.4.6.1 Jurisdictional Waters/Wetlands: Based on the jurisdiction delineation, implementation of the proposed project would result in permanent impacts to 0.11 of non-wetland waters of the United States. Additionally, the proposed project would permanently impact and 0.33 acre (602 linear feet) of CDFG jurisdiction non-riparian streambed. This is a significant impact requiring mitigation.	**4.4.6.1A** Prior to the issuance of grading permits for the affected areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the ACOE, a Section 401 Permit from the RWQCB and a Section 1602 Streambed Alteration Agreement from the CDFG has been obtained for jurisdictional waters on each of the sites. **4.4.6.1B** Prior to the issuance of grading permits for the affected areas, the project applicant shall	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	compensate for the loss of jurisdictional resources by creating non-wetland Waters of the U.S./Streambed as directed through consultation with the ACOE and the CDFG.	
4.4.6.2 Candidate, Non-listed Sensitive, or Special Interest Species: While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the study area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation.	**4.4.6.2A** The clearance of vegetation within the BSA that supports special status species or protected avian species shall not occur within the typically avian nesting season (March 1 to June 30). **4.4.6.2B** Access to proposed development sites shall be via existing routes, or shall be limited to the minimum extent/length required to provide safe and timely access. Known occupied burrows within the BSA, but outside the proposed development sites shall be avoided. **4.4.6.2C** No more than 72 hours prior to initiation of ground-disturbing activities, a pre-construction burrowing owl shall be completed by a qualified biologist. A report detailing the findings of the pre-construction survey shall be submitted to the City prior to the initiation of ground-disturbing activities. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, **Mitigation Measure 4.4.6.2.E** shall apply. **4.4.6.2D** No more than 72 hours prior to initiation of ground-disturbing activities, a pre-construction burrowing owl survey shall be completed by a qualified biologist for the planned disturbance area and a 500-foot (150-meter) buffer area. The pre-construction burrowing owl surveys may be conducted as part of the survey required in **Mitigation Measure 4.4.6.2.C.** A report detailing the findings of the pre-construction survey shall be submitted to the City prior to the initiation of ground-disturbing activities. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required.	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	In the event burrowing owls are identified within the limits of ground disturbance, **Mitigation Measures 4.4.6.2.E-F** shall apply. **4.4.6.2E** If nesting special status avian species are determined to occupy a proposed area of disturbance, no construction activity shall take place within 500 feet of an active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. **4.4.6.2F** If active burrowing owl burrows are detected outside the breeding season, then passive and/or active relocation may be approved following consultation with CDFG and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens.	
Cumulative Impacts: The cumulative area for biological resources is the MSHCP area. Because the MSCHP provides a regional and comprehensive approach to conservation planning, and through the implementation of the stated mitigation for project-specific impacts and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses.	No mitigation is required	Not Applicable
4.5 CULTURAL RESOURCES		
Less than Significant Impacts		
Cumulative Impacts: The cumulative area for cultural resources is the City of Perris. There is no existing evidence of pre-European contact or usage of the three project sites. Implementation of the proposed project would require measures to identify, recover, and/or record any cultural and/or paleontological resource that may occur within the project limits. Although unlikely to occur, potential impacts associated with human remains would be reduced to a less	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
than significant level through adherence to existing State law. There are no projects that would, in combination with the proposed project, result in any significant cumulative impacts on historical, archaeological, or paleontological resources, or in impacts to human remains. Therefore, the proposed project would have no significant cumulative impacts associated with cultural resources.		
Significant Impacts		
4.5.5.1 Human Remains: The Phase 1 site of the proposed project is currently utilized as a pre-cast concrete bridge fabrication operation while the Phase 2 and Phase 3 sites of the proposed project are currently vacant and historically utilized for agricultural production. No evidence exists that suggests the project site has been utilized in the past for human burials. In the unlikely event human remains are discovered during grading or construction activities, compliance with State law (Health and Safety Code §7050.5) is required. The requirements of State law have been set forth below as a mitigation measure to mitigate any discovery of unknown human remains:	**4.5.5.1A** In the event of the accidental discovery or recognition of any human remains on the project, the following steps shall be taken: ▪ There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: o The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and o If the coroner determines the remains to be Native American: ▪ The coroner shall contact the NAHC within 24 hours. ▪ The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. ▪ The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	▪ Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further and future subsurface disturbance pursuant to Public Resources Code Section 5097.98(e). o The NAHC is unable to identify a most likely descendant. o The most likely descendant is identified by the NAHC, fails to make a recommendation within 48 hours of being granted access to the site; or o The landowner or his authorized representative rejects the recommendation of the descendant, and a mediation by the NAHC fails to provide measures acceptable to the landowner.	
Impact 4.5.5.2 Historic or Prehistoric Cultural Resources: **Phase 1.** Of the 38 acres, 24 acres of the Phase 1 site currently is developed with a pre-cast concrete bridge fabrication facility. It is reasonable to conclude that these 24 acres would not yield any unique archaeological resources as this area already is developed with urban uses. Although there is little potential for previously undocumented cultural resources within the Phase 1 site boundaries a potentially significant impact has been determined due to the possibility that historic resources could be discovered once construction commences. **Phase 2.** Although no historic or archaeological resources were identified during the survey, previously unidentified historic resources potentially may be encountered during	**4.5.5.2A** Prior to grading of the project site, the project developer shall hire a qualified archaeologist to provide cultural resource monitoring services at the project site. Selection of the archaeologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the archaeologist has been approved by the City. During grading activities, the archaeologist shall monitor earthmoving activities at the project sites consistent with Public Resources Code Section 21083.2(b), (c), and (d). The archaeologist shall be equipped to record and salvage cultural resources that may be unearthed during grading activities. The archaeologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. If the	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
project construction. A potentially significant impact has been determined due to the possibility that historic resources could be discovered once construction commences. **Phase 3.** Although no historic resources were identified during the survey, there is the potential that previously unidentified historic resources may be encountered during project construction. A potentially significant impact has been determined due to the possibility that historic resources could be discovered once construction commences. This is a significant impact requiring mitigation.	archaeologist identifies resources of a prehistoric or Native American origin, a Native American observer shall be added to the monitoring program and accompany the archaeologist for the duration of the grading phase. Any Native American resources shall be evaluated in accordance with the CEQA Guidelines and either reburied at the project sites or curated at an accredited facility approved by the City of Perris. Once grading activities have ceased or the archaeologist determines that monitoring is no longer necessary, monitoring activities can be discontinued.	
Impact 4.5.5.3 Paleontological Resources: **Phase 1.** Of the 38 acres, 24 acres of the Phase 1 site currently is developed with a pre-cast concrete bridge fabrication facility. It is reasonable to conclude that these 24 acres would not yield any unique paleontological resources as this area already is developed with urban uses. Although there is little potential for previously undocumented paleontological resources within the Phase 1 site boundaries, previously unidentified paleontological resources potentially may be encountered during project construction. **Phase 2.** Although no paleontological resources were identified during the survey, previously unidentified paleontological resources potentially may be encountered during project construction. **Phase 3.** Although no paleontological resources were identified during the survey, there is the potential that previously unidentified paleontological resources may be encountered during project construction. This is a significant impact requiring mitigation.	**4.5.5.3A** Prior to the issuance of grading permits, the project proponent shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Program (PRIMP). The PRIMP shall include the provision of a trained paleontological monitor during on-site soil disturbance activities. The monitoring for paleontological resources shall be conducted on a half-time basis during the rough-grading phase of the project. In the event that paleontological resources are unearthed or discovered during excavation, **Mitigation Measure 4.5.5.3C** shall apply. Conversely, if no paleontological resources are unearthed or discovered on site during excavation, no additional mitigation is required. **4.5.5.3B** The paleontological monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples of soil shall be collected and processed to recover microvertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains. **4.5.5.3C** If paleontological resources are unearthed or discovered during excavation of the project site,	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	the monitoring for paleontological resources shall be conducted on a full-time basis for the duration of the rough-grading of the project site. The following recovery processes shall apply: • Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques. • All fossils collected during the project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens. • A report documenting the results of the monitoring and salvage activities and the significance of the fossils shall be prepared. • All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository (such as the Western Science Center~~ for Archaeology & Paleontology,~~ or the Riverside Metropolitan Museum~~, or the San Bernardino County Museum~~) for permanent curation and storage.	
4.6 HAZARDS AND HAZARDOUS MATERIALS		
Less than Significant Impacts		
4.6.5.1 Routine Transport, Use, or Disposal of Hazardous Materials and Foreseeable Upset and Accident Conditions: The handling of hazardous materials in accordance with the HMBEP as required by applicable local, state, and federal standards, ordinances, and regulations would ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant.	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.6.5.2 Existing or Proposed School: Though the project would not utilize acutely hazardous materials in its daily operation, due to aforementioned storage and transport of hazardous materials, the potential for an accidental release of hazardous materials into the environment is present at the proposed project sites as it is at any commercial, retail, or industrial site. Compliance with the identified state and federal transportation safety standards would govern the handling of hazardous materials during truck and freight transfer operations. These standards include procedures to contain, report, and remediate any accidental spill or release of hazardous materials. The handling of hazardous materials in accordance with all applicable local, state, and federal standards, ordinances, and regulations would ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant.	No mitigation is required	Not Applicable
4.6.5.3 Located on a List of Hazardous Materials Sites: None of the three project sites or areas of infrastructure improvements were listed on any list of hazardous materials sites as defined by Government Code Section 65962.5, impacts related to this issue would be less than significant and no mitigation is required.	No mitigation is required	Not Applicable
4.6.5.4 Within Two Miles of a Private Airport: The project sites are not located within the vicinity of a private airstrip or heliport. Development of the proposed project uses would not result in a safety hazard to persons residing or working in the project area. Because there are no private airstrips in the vicinity of the project sites, no impact related to this issue would occur. No mitigation is required.	No mitigation is required	Not Applicable
Cumulative Impacts: Significant cumulative impacts associated with the routine transport, use, and disposal of hazardous materials would occur. Often, these risks are site-specific and localized and therefore limited to the project site. However, since the number of trucks containing hazardous materials on the road in a given area at any given time is impossible to estimate and since accidental spills and leaks are unplanned occurrences, it is impossible	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
to predict the occurrence of such events. It is reasonable to assume however that with an increase in vehicles transporting hazardous materials the potential for accidents would be increased. Although each project has unique hazardous materials considerations, it is anticipated that future cumulative projects would comply with the local, state, and federal regulations and requirements as these are required for all development projects. As a result, cumulative impacts associated with hazardous materials would be less than significant. Surrounding Cities of Perris, Moreno Valley, and Riverside as well as the County of Riverside have implemented comprehensive land use plans that incorporate AICUZ and ALUP recommendations; therefore, it is anticipated that cumulative development within the accident potential zones would not create a significant and cumulative impact associated with aircraft accident hazards.		
Significant Impacts		
Impact 4.6.6.1 Within An Airport Land Use Plan or Within Two Miles of a Public Airport: The nearest public use airport is the Perris Valley Airport located within 0.38 mile of the project sites. The Phase 1 and 3 sites are located within the Airport Compatibility Zones identified in the Draft Perris Valley Airport Land Use Compatibility Plan (ALUCP). ~~t~~The March Air Field/March Inland Port (MIP) is also located in the project vicinity. Only Phase 3 of the project is located within the Airport Influence Area established for MIP. Both Phases 1 and 2 are located outside of the Airport Influence Area for the MIP. Proposed infrastructure improvements would not result in a hazard related to proximity to a public airport as no structures are proposed as part of the improvements. Impacts resulting from infrastructure improvements are less than significant. Since Phase 1 is located within Airport Compatibility Zone D of the Draft 2009 Perris Valley ALUCP, Phase 3 of the project is located within Airport Compatibility Zones D and E	**4.6.6.1A** Prior to recordation of a final map, the issuance of building permits, or conveyance to an entity exempt from the Subdivision Map Act for Phase 3, whichever occur first, the landowner of the project site shall convey an avigation easement to the MARB/MIP Airport or provide documentation to the City of Perris and the Airport Land Use Commission that such conveyance has previously been recorded. **4.6.6.1B** Prior to the issuance of building permits for each phase, the project proponent shall provide evidence to the City through submittal of a lighting plan that any outdoor lighting shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky and that all outdoor lighting is downward facing. **4.6.6.1C** Prior to the issuance of building permits for each phase, the project proponent shall provide evidence to the City through submittal and	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
of the Draft 2009 Perris Valley ALUCP and within the Airport Influence Area of the MIP, the development of the proposed project could result in a safety hazard for people that would work in the area. This is a potentially significant impact requiring mitigation.	agreement of additional conditions of approval that the following uses shall be prohibited on site: a Any use which would direct a steady light or flashing light of red, white, green or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator. b. Any use which would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport. c. Any use which would generate smoke or water vapor, or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. d. Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation. **4.6.6.1D** Prior to issuance of building permits for Phase 1, the applicant shall submit a Notice of Proposed Construction of Alteration (Form 7460-1) to the Federal Aviation Administration (FAA) for each building with an elevation at top point exceeding 1,427 AMSL and shall have received a determination of "No Hazard to Air Navigation" from the FAA. Copies of the FAA determination shall be provided to the City of Perris Planning Department and the Riverside County Airport Land Use Commission. **4.6.6.1E** Prior to issuance of building permits for Phase 3, the applicant shall submit a Notice of Proposed Construction of Alteration (Form 7460-1) to	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	the Federal Aviation Administration (FAA) for each building with an elevation at top point exceeding 1,424 AMSL and shall have received a determination of "No Hazard to Air Navigation" from the FAA. Copies of the FAA determination shall be provided to the City of Perris Planning Department and the Riverside County Airport Land Use Commission. **4.6.6.1F** Prior to issuance of grading permits for each phase, the project proponent shall provide evidence to the City that the proposed on-site detention basins have been designed and engineered so as to provide for a maximum 48 hour detention period after the design storm and to remain totally dry between rainfalls. If this criterion cannot be met, then **Mitigation Measure 4.6.6.1G** shall apply. Conversely, if this criterion can be met, **Mitigation Measure 4.6.6.1G** shall not be applicable. **4.6.6.1G** The project proponent, in consultation with the owner-operator of Perris Valley Airport, shall contract with a wildlife biologist qualified to conduct Wildlife Hazard Assessments for the preparation of a Wildlife Hazard Management Plan (WHMP). Mitigation measures identified in the WHMP shall be adhered to. **4.6.6.1H** Prior to the issuance of occupancy permits for each phase, the project proponent shall provide evidence to the City that vegetation proposed for in and around the proposed detention/retention basins does not provide food or cover for bird species that would be incompatible with airport operations. **4.6.6.1I** Prior to the transfer of any real property or the finalization of a lease agreement for property within each of the phases, the transferor (or leaser) shall provide to the transferee (or lessee), notification required by Condition 4 of the Riverside County Airport Land Use Commission's consistency determination dated May 14, 2009.	

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
~~***Impact 4.6.6.2 Within Two Miles of a Private Airport:*** The nearest private airport is the Perris Valley Airport. Phase 1 and Phase 3 of the project is located within the Influence Area established for Perris Valley Airport. Phase 2 is located outside of the Airport Influence Area for the Perris Valley Airport. Proposed infrastructure improvements would not result in a hazard related to proximity to a private airport as no structures are proposed as part of the improvements. Impacts resulting from infrastructure improvements are less than significant.~~ ~~Since Phase 1 and Phase 3 of the project are located within the Airport Influence Area of the Perris Valley Airport the development of the proposed project could result in a safety hazard for people that would work in the area. This is a potentially significant impact requiring mitigation.~~	~~**Please refer to Mitigation Measures 4.6.6.1A though 4.6.6.1I**~~	~~Less Than Significant~~
4.7 HYDROLOGY, DRAINAGE, AND WATER QUALITY		
Less than Significant Impact		
4.7.5.1 <u>Levee or Dam Failure</u> Flooding-Related Impacts: **Phase 1.** The Phase 1 site is located within the Lake Perris dam inundation area. However, dam failure is very unlikely as the dams within the City have been engineered and constructed with the knowledge that the area is seismically active. <u>In addition, seismic safety problems are being addressed by the California Department of Water Resources' Perris Dam Remediation Program, construction of which will begin in late 2010 and will be completed in 2013.</u> Therefore, impacts related to this issue are less than significant. **Phase 2.** The Phase 2 site is also located within the dam inundation area. <u>As stated previously, seismic safety problems are being addressed by the California Department of Water Resources' Perris Dam Remediation Program, construction of which will begin in late 2010 and will be completed in 2013.</u> Impacts related to this issue are similar to Phase 1 and are less than significant. Phase 2 currently has off site areas to the northwest draining across the Phase 2 site. Three sources of off site flows present flood	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
hazards to the Phase 2 site. However, existing and proposed interception features would adequately intercept anticipated flows from off site areas, impacts associated with this issue are less than significant and no mitigation is required. **Phase 3.** The Phase 3 site is also located within the dam inundation area. Impacts, related to this issue are similar to Phase 1 and 2 and are less than significant.		
4.7.5.2 Seismic-Related Impacts: **Phase 1.** The Phase 1 site is not located near the ocean and is not adjacent to Lake Perris – therefore it would not be subject to tsunamis or seiches. In addition, the site is located in a relatively flat area where landslides and mudslides would not occur and is not located in an area identified for slope instability. Therefore, impacts related to this issue are less than significant. No mitigation is required. **Phase 2.** The Phase 2 site is also located within an area where no tsunamis, seiches, landslides, mudslides, or slope instability would occur. Impacts related to this issue are similar to Phase 1 and are less than significant. No mitigation is required. **Phase 3.** The Phase 3 site is also located within an area where no tsunamis, seiches, landslides, mudslides, or slope instability would occur. Impacts related to this issue are similar to Phase 1 and 2 and are less than significant.	No mitigation is required	Not Applicable
4.7.5.3 Groundwater: **Phase 1.** Phase 1 would primarily utilize imported water purchased from Metropolitan which would be supplemented by local groundwater sources. Implementation of the existing Hemet/San Jacinto Water Management Plan would ensure that local groundwater resources are conserved and groundwater overdraft does not occur. Because this plan is in place, it is reasonable to conclude that Phase 1 would not substantially deplete groundwater supplies in the area. The proposed project would not interfere with groundwater recharge as the project site is not identified as a	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
groundwater recharge area. The development of the proposed project would reduce the amount of pervious surfaces that could facilitate percolation on site. However, the proposed project would consist of other project design features such as drainage swales and infiltration trenches that would be designed to offset the conversion of pervious surfaces to impervious surfaces. Because project design features would be sized to accommodate increased flows on-site, it is anticipated that the amount of water percolated on site would be similar to existing conditions. Therefore, Phase 1 would not interfere with groundwater recharge activities. Impacts associated with this issue are less than significant and no mitigation measures are required. **Phase 2.** Phase 2 would also use imported water with groundwater supplements. Impacts related to this issue are similar to Phase 1 and are less than significant. No mitigation is required. **Phase 3.** Phase 3 would also use imported with groundwater supplements. Impacts related to this issue are similar to Phase 1 and 2 and are less than significant. No mitigation is required.		
4.7.5.4 Drainage Pattern and Capacity-Related Impacts: **Phase 1.** Drainage patterns on the Phase 1 site would not significantly change from existing drainage patterns. Because the development of the Phase 1 site would introduce a greater percentage of impervious surfaces, the post-development flows that would be generated on site are anticipated to be significantly higher than the pre-development flows. However, post-development flows generated on the Phase 1 site would not exceed the capacity of the planned stormwater drainage system with implementation of BMPs. Impacts associated with this issue are less than significant. No mitigation is required. **Phase 2.** Similar to Phase 1, drainage patterns on the Phase 2 site would not significantly change from existing drainage patterns. The proposed drainage system for Phase 2 would accept and accommodate runoff generated	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
at or better than pre-development conditions with the exception of the 2-year/24-hour and 10-year/24-hour storm events. However, it is anticipated that such flows would not result erosion and/or sedimentation that would impact stream habitat or downstream property owners. Therefore, impacts associated with this issue are less than significant. No mitigation is required. **Phase 3.** Drainage impacts associated with Phase 3 are similar to those identified for Phase 1 and 2 and are less than significant. Similar to what was identified for Phase 2, the proposed drainage system for Phase 3 would accept and accommodate runoff generated at or better than pre-development conditions with the exception of the 2-year/24-hour storm event. However, it is anticipated that such flows would not result erosion and/or sedimentation that would impact stream habitat or downstream property owners. Therefore, impacts associated with this issue are less than significant. No mitigation is required.		
Cumulative Impacts: Cumulatively, development within the watershed would result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. However, all development and future development in the City and throughout the Santa Ana RWQCB must obtain coverage under the NPDES permit program. It is anticipated that each development would be required to mitigate its own specific impact on water quality and drainage. Therefore, if all other developments are required to mitigate for impacts to water quality, a less than significant cumulative impact to water quality would occur.	No mitigation is required	Not Applicable
Significant Impacts		
Impact 4.7.6.1 Construction-Related Water Quality Impacts: **Phase 1.** The construction and grading phases of the Phase 1 site would require temporary disturbance of	**4.7.6.1A** Prior to the first issuance of a grading permit by the City for each phase of the proposed project, the project applicant shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the State	Less Than Significant

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surface soils and removal of vegetative cover in excess of 1 acre which could potentially result in erosion and sedimentation on site. This is a significant impact requiring mitigation. **Phase 2.** The construction and grading phases of the Phase 2 site would require temporary disturbance of surface soils and removal of vegetative cover in excess of 1 acre which could potentially result in erosion and sedimentation on site. This is a significant impact requiring mitigation. **Phase 3.** The construction and grading phases of the Phase 2 site would require temporary disturbance of surface soils and removal of vegetative cover in excess of 1 acre which could potentially result in erosion and sedimentation on site. This is a significant impact requiring mitigation.	National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of stormwater associated with construction activities. **4.7.6.1B** Prior to the first issuance of a grading permit by the City for each phase of the project, the project applicant shall submit to and receive approval from the City of Perris a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Some of the BMPs to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs would be periodically inspected during construction, and repairs would be made when necessary as required by the SWPPP. • All materials that have the potential to contribute non-visible pollutants to stormwater must not be placed in drainage ways and must be contained, elevated, and placed in temporary storage containment areas. • All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected in a reasonable manner to eliminate any discharge from the site. Stockpiles would be surrounded by silt fences and covered with plastic tarps.	

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	• The SWPPP would include inspection forms for routine monitoring of the site during the construction phase to ensure NPDES compliance. • Additional BMPs and erosion control measures would be documented in the SWPPP and utilized if necessary. • The SWPPP would be kept on site for the entire duration of project construction and will also be available to the local RWQCB for inspection at any time. In the event that it is not feasible to implement the above BMPs, the City of Perris can make a determination that other BMPs would provide equivalent or superior treatment either on site or off site. **4.7.6.1C** The Construction Contractor shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. Weekly inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and available for City inspection. In addition, the Contractor would also be required to maintain an inspection log and have the log on site available for review by the City of Perris and the representatives of the Regional Water Quality Control Board.	
Impact 4.7.6.2 Operational-Related Water Quality Impacts: **Phase 1.** Operation of the Phase 1 site would result in the conversion of permeable surfaces to impermeable surfaces. During the operational phase of the proposed project, the major source of pollution in stormwater runoff would be contaminants that have accumulated on the land surface over which runoff passes. This is a significant impact requiring mitigation.	**4.7.6.2A** Prior to the first issuance of a permit by the City (which includes the issuance of grading permits and building permits) for each phase, the project applicant shall receive approval from the City of Perris of a project-specific Final Water Quality Management Plan (WQMP) for each component of the proposed project. The Final WQMP shall specifically identify pollution prevention, source control, treatment control measures, and other BMPs that shall be used on site to control predictable	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Phase 2. Operation of the Phase 2 site would result in the conversion of permeable surfaces to impermeable surfaces. During the operational phase of the proposed project, the major source of pollution in stormwater runoff would be contaminants that have accumulated on the land surface over which runoff passes. This is a significant impact requiring mitigation. **Phase 3.** Operation of the Phase 3 site would result in the conversion of permeable surfaces to impermeable surfaces. During the operational phase of the proposed project, the major source of pollution in stormwater runoff would be contaminants that have accumulated on the land surface over which runoff passes. This is a significant impact requiring mitigation.	pollutant runoff in order to reduce impacts to water quality.	
Impact 4.7.6.3 100-Year Flooding Hazard-Related Impacts: **Phase 1.** Portions of the Phase 1 site are within a 100-year flood hazard area and would place structures within such an area that would potentially impede or redirect flood flows. This is a potentially significant impact requiring mitigation. **Phase 2.** The Phase 2 site is located adjacent to the San Jacinto River flowline and associated conservation area. Due to the proximity of the San Jacinto River, portions of the site are not suited for development due to encroachment beyond the limits of the San Jacinto River Floodway. In addition, as identified in the preliminary hydrology report, the Phase 2 site is mapped as being inundated during a 100-year flood event by FEMA. Since the Phase 2 site is within the 100-year floodplain, development of the Phase 2 site would result in the placement of structures on site that would have a potential to impede or redirect flood flows. This is a potentially significant impact requiring mitigation. Application for a CLOMR-F from FEMA would require documentation of fill material placement, elevation changes, and removal of a portion of a property from the likelihood of inundation during a flood event. Elevation of a portion of the project site above	**4.7.6.3A** Prior to issuance of grading permits for each phase of the project, the project proponent shall submit evidence to the City that all requirements identified in Chapter 15.09 (Floodplain Management) of the City's Municipal Code have been fulfilled to the City floodplain administrator's satisfaction. **4.7.6.3B** Prior to the issuance of grading permits for Phase 2 and Phase 3, the project applicant shall submit to the City supporting evidence of compliance with FEMA CLOMR-F specifications and requirements including the discussion and analysis of fill material placement, elevation changes, and hydro-modification impacts.	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
the 100-year flood zone would effectively remove potential impacts to the proposed project in regards to storm event flood hazards. Documentation submitted to the City and FEMA as well as FEMA approval of the CLOMR-F would ensure that flood-related impacts have been mitigated to a less than significant level for the Phase 2 site. **Phase 3.** The Phase 3 site is entirely within the 100-year floodplain as mapped by FEMA and is located adjacent to the San Jacinto River and would result in the placement of structures on site that would have a potential to impede or redirect flood flows. This is a potentially significant impact requiring mitigation. Similar to what was identified by Phase 2 of the project, Phase 3 would also require a CLOMR-F. Application for a CLOMR-F from FEMA would require documentation of proposed levee material placement, elevation changes, and removal of a portion of a property from the likelihood of inundation during a flood event. The placement of a perimeter levee would effectively remove potential impacts to the proposed project in regards to storm event flood hazards. Documentation submitted to the City and FEMA as well as FEMA approval of the CLOMR-F would ensure that flood-related impacts have been mitigated to a less than significant level for the Phase 3 site.		
4.8 LAND USE AND PLANNING		
Less than Significant Impacts		
4.8.5.1 Physically Divide an Established Community: There are pockets of commercial, light industrial/ manufacturing, and industrial uses surrounding the project sites. There are also scattered residential uses in the project area. These residential uses are non-conforming uses and are planned for General Industrial land uses in the City's General Plan. A mix of mostly undeveloped land with pockets of non-conforming residential uses, commercial, light industrial/manufacturing, and industrial uses do not constitute an established community. Because the existing residential uses surrounding the proposed project site are separated from the site by existing development, undeveloped land, and the San Jacinto River,	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
implementation of the proposed project would not physically divide an established community. while the physical construction of barriers would occur (e.g., rail lines and roadways), the division of an established community would not occur as the collection of land uses in the project vicinity is not considered an established community. No impact would occur and no mitigation is required.		
4.8.5.2 Conflict with Applicable Land Use Plans, Policies, or Regulations: Based on a review of SCAG, SCAQMD, UWMP, Basin Plan, and General Plan policies, the proposed project was not identified as conflicting with existing plans, policies, or regulations. Because the General Plan Amendment would enable the proposed project to be consistent with the land use designations in the General Plan, impacts related to this issue are considered to be less than significant and no mitigation is required.	No mitigation is required	Not Applicable
4.8.5.3 Conflict with Any Applicable Habitat or Natural Community Conservation Plan: Because the project sites are partially within MSHCP criteria cells and are considered to be covered activities, the project is subject to provisions of the MSHCP. In particular, the project proponent will be required to provide payment of mitigation fees and adhere to the Best Management Practices found in Appendix C of the MSHCP. Pursuant to agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), the payment of the mitigation fees and compliance provisions of the MSHCP provides full mitigation under the California Environmental Quality Act (CEQA), the Federal Endangered Species Act (FESA), and the California Endangered Species Act (CESA) for impacts to the species and habitats covered by the MSHCP. Since the City has adopted the MSHCP and its requirements and provisions, and since the project is within Perris, the proposed project would be required to adhere to applicable MSHCP requirements and fees. Therefore, the proposed project would not conflict with any applicable habitat conservation plan and no significant impact associated with this issue would occur. No mitigation would be required.	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Cumulative Impacts: Based on the existing, approved, or proposed development in the project area, as well as the existing zoning designations, the development of the proposed project would continue a pattern and practice of development. Because each cumulative project would be required to identify and mitigate any inconsistencies among the various land use plans, it can be anticipated that, on a cumulative level, these cumulative projects would have a less than significant impact. Therefore, there are no other developments in the project vicinity that would in combination with the proposed project create a cumulative impact by dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan.	No mitigation is required	Not Applicable
Significant Impacts		
No significant land use impacts were identified.	Not Applicable	Not Applicable
4.9 NOISE		
Less than Significant Impacts		
***4.9.5.1 Public Airport Noise Impacts*:** **Phase 1.** Phase 1 of the proposed project is located approximately 8.0 miles south of the March Inland Port and is not within any of the identified Safety Zones. In addition, the Phase 1 site is not located within the noise contours delineated for the March Inland Port. Therefore, development and operation of Phase 1 would not result in the exposure of people working in the project area to excessive noise levels. No impacts associated with this issue would occur and no mitigation is required. **Phase 2.** Phase 2 of the proposed project is located approximately 7.0 miles south of the March Inland Port and is outside the airport influence area for the March Inland Port. Phase 2 is not located within the noise contours delineated for this public airport and would not result in the exposure of people working in the project area to excessive noise levels. No impacts associated with this issue would occur and no mitigation is required.	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Phase 3. Phase 3 of the proposed project is located approximately 6.5 miles southeast of the March Inland Port. The western half of Phase 3 is outside the airport influence area for the March Inland Port while the eastern half of Phase 3 is within Safety Zone Area 3. However, Phase 3 site is not located within the noise contours delineated for the March Air Reserve Base Airport. Development and operation of Phase 3 would not result in the exposure of people working in the project area to excessive noise levels. No impacts associated with this issue would occur and no mitigation is required.		
***4.9.5.2 Private Airport Noise Impacts*:** **Phase 1.** The nearest private airport to the Phase 1 site is the Perris Valley Airport, located approximately 0.25 mile east of the project site. Phase 1 is located within the Influence Area established for Perris Valley Airport. Because the level of noise that would be experienced at the Phase 1 site would be below the threshold of noise that is acceptable, impacts associated with this issue would be less than significant. No mitigation is required. **Phase 2.** The nearest private airport for Phase 2 is the Perris Valley Airport, located approximately 0.38 mile east of the project site. Because the level of noise that would be experienced at the Phase 2 site would be below the threshold of noise that is acceptable, impacts associated with this issue would be less than significant. No mitigation is required. **Phase 3.** The nearest private airport for Phase 3 is the Perris Valley Airport, located approximately 0.25 mile southwest of the project site. Because the level of noise that would be experienced at the Phase 3 site would be below the threshold of noise that is acceptable, impacts associated with this issue would be less than significant. No mitigation is required.	No mitigation is required	Not Applicable
4.9.5.3 Groundborne Vibration Impacts: **Phase 1.** While heavy-duty earthmoving equipment would be used during the construction phase of Phase 1, the level	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
of vibration would not be excessive or permanent, nor would it exceed the level at which building damage typically occurs. Therefore, impacts from construction-related groundborne vibration associated with Phase 1 would be less than significant and no mitigation is required. The nearest train tracks to the Phase 1 site are approximately 417 feet west. Because of the relatively low amount of train traffic experienced at the Orange Empire Railway Museum and because of the distance between the Phase 1 site and nearest train tracks (417 feet), impacts associated with train groundborne vibration for Phase 1 would be less than significant and no mitigation is required. **Phase 2: First Park South Perris Distribution Center.** While heavy-duty earthmoving equipment would be used during the construction phase of Phase 2, the level of vibration would not be excessive or permanent, nor would it exceed the level at which building damage typically occurs. Therefore, impacts from construction-related groundborne vibration associated with Phase 2 would be less than significant and no mitigation is required. The FTA vibration criterion for residential land uses subject to infrequent rail events is 80 VdB. It is anticipated that vibration level at the nearest residential dwelling is 75 VdB. The vibration level that would be experienced at the nearest residential dwelling is below the 80 VdB threshold. Therefore, impacts associated with rail vibration would be less than significant and no mitigation is required. **Phase 3: First Park South 215 Distribution Center.** While heavy-duty earthmoving equipment would be used during the construction phase of Phase 3, the level of vibration would not be excessive or permanent, nor would it exceed the level at which building damage typically occurs. Therefore, impacts from construction-related groundborne vibration associated with Phase 3 would be less than significant and no mitigation is required. The nearest train tracks are located approximately 360 feet from southwestern corner of Phase 3 site. Because of the distance between the Phase 3 site and nearest train tracks		

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
(360 feet), impacts associated with train groundborne vibration for Phase 3 would be less than significant and no mitigation is required.		
4.9.5.4 Opening Year Long-Term Traffic-Related Noise Impacts: **Phase 1.** The largest project-related increase in traffic noise would be along Mountain Avenue west of Goetz Road. This segment would experience an 8.5 dBA increase over the baseline (without the project) scenario in opening year. However, the existing land uses along the Mountain Avenue between Goetz Road and A Street consist of existing industrial uses and vacant land zoned for industrial uses. Therefore, noise impacts at the roadway segments where an increase of more than 3.0 dBA would occur are considered less than significant because there are no sensitive receptors located along this roadway segment. All other roadway segments would have an increase in noise of less than 3.0 dBA, which would not be perceptible to the human ear in an outdoor environment. Therefore, no mitigation measures related to traffic noise would be required for off-site areas. **Phase 2.** The largest project-related increase in traffic noise would be along Watson Road east of A Street. This segment would experience a 50 dBA increase over the baseline (without the project) scenario in opening year. However, it should be noted that there currently is no paved road on Watson Road east of A Street. With development of the proposed project, Watson Avenue east of A Street would be an improved paved road which would accommodate traffic from Phase 2 and the surrounding area. As previously stated, roadway segments where an increase of more than 3.0 dBA would occur are considered significant but because there are no sensitive receptors located along this segment of Watson Road the impact is less than significant. The second largest project-related increase in traffic noise would be along A Street between Mapes Street and Watson	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Avenue. This segment would experience a 10.8 dBA increase over the baseline (without the project) scenario in the opening year. However, no noise-sensitive uses exist or are planned in the vicinity of this roadway segment. The surrounding land uses consist of the existing industrial uses and vacant land zoned for industrial uses. Noise impacts at roadway segments where an increase of more than 3.0 dBA would occur are considered less than significant if there are no sensitive receptors located along those roadway segments. There are no noise-sensitive uses along A Street between Mapes Street and Watson Avenue. All other roadway segments would have an increase in noise of less than 3.0 dBA, which would not be perceptible to the human ear in an outdoor environment. Therefore, no mitigation measures related to Phase 2 roadway traffic noise would be required for off-site areas. **Phase 3.** The largest project-related increase in traffic noise would be along Ellis Avenue east of Redlands Avenue. This segment would experience a 60.8 dBA increase over the baseline (without the project) scenario in opening year. However, it should be noted that Ellis Avenue east of Redlands Avenue is currently an unimproved dirt road which does not receive traffic. There is an existing single family residence located to the northwest corner of Redlands Avenue and Ellis Avenue with an ambient noise level of 65 dB CNEL. The existing ambient noise in the area surrounding the existing single family residence is greater than the amount of traffic noise that would be generated on the Ellis Avenue segment east of Redlands Avenue. Although there would be a 60.8 dBA increase along this roadway segment, existing ambient noise conditions would be greater than this increase. Therefore, the noise would not impact the existing single family residence. <u>All other roadway segments would have an increase in noise of less than 3.0 dBA, which would not be perceptible to the human ear in an outdoor environment.</u> Impacts would be less than significant and no mitigation would be required. **All Phases:** <u>Four</u> ~~Five~~ roadway segments would experience		

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
an increase in noise levels above the 3 dBA threshold. ~~Four of the five roadway segments that would experience an increase in noise levels above the 3 dBA threshold~~ These locations have already been discussed in previous analysis for a specific phase with traffic noise impacts being less than significant. ~~The fifth roadway segment, Murrieta Road north of Ethanac Road, would experience an increase in traffic noise levels of up to 4.9 dBA with all three phases in operation. However, no noise-sensitive uses exist or are planned in the vicinity of the roadway segment.~~ Therefore, no mitigation measures related to the proposed project's opening year traffic noise would be required for off-site areas.		
4.9.5.5 Future Year Long-Term Traffic-Related Noise Impacts: Operation of the proposed project would generate traffic along roadways during future year (2030). It is anticipated that during the future year (2030), all phases of the proposed project (Phase 1, Phase 2, and Phase 3) would be built and in operation concurrently with one another. The greatest increase in noise levels would be along Watson Road east of A Street and Mountain Avenue west of Goetz Road. An increase of up to 50.0 dBA is predicted for Watson Road east of A Street while an increase of up to 8.5 dBA is predicted for Mountain Avenue west of Goetz Road. All other roadways would experience noise level increases below the 3 dBA threshold. Increases in noise along these roadway segments were previously identified in the phase specific analysis (Phase 2 analysis for Watson Road and Phase 1 for Mountain Avenue) and found to be less than significant due to surrounding uses and existing ambient noise levels. Therefore, no mitigation measures related to the proposed project's future year (2030) traffic noise would be required.	No mitigation is required	Not Applicable
4.9.5.6 Short-Term Construction Noise Impacts: **Phase 1.** Construction activities would include grading, excavation, and installation activities generating noise levels up 91 dBA L_{max} at 50 feet from an active construction area. These noise levels would diminish rapidly with distance from	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
the construction site at a rate of approximately 6 dBA per doubling of distance. The nearest sensitive receptors to the Phase 1 site is a single-family residence located east of Goetz Road, approximately 250 feet from the eastern most boundary of the Phase 1 site. This residence may be subject to short-term, intermittent, maximum noise reaching 77 dBA L_{max}, generated by construction activities on the project site. **Phase 2.** Construction activities would include grading, excavation, and installation activities generating noise levels up 91 dBA L_{max} at 50 feet from an active construction area. The nearest sensitive receptor to the Phase 2 project site boundary are existing residences located north of Mapes Road, approximately 50 feet from the northern most boundary of the Phase 2 site. These residences may be subject to short-term, intermittent, maximum noise reaching 91 dBA L_{max}, generated by construction activities on the project site. However, compliance with the construction hours specified in the City's Municipal Code would result in construction noise impacts that are less than significant. Phase 2 of the proposed project would also have the potential for the extension of an existing rail line west of the Phase 2 site. The extension of this rail line would provide rail service to the Phase 2 site. Phase 2 of the proposed project would also have the potential for rail service to the Phase 2 site. It is anticipated that the existing rail line spur would be utilized and no new rail facilities would be built. Therefore, no construction activities would be associated with the rail service component for the Phase 2 site. No impacts associated with construction noise would occur with the rail service proposed for the Phase 2 site. No mitigation is required. **Phase 3.** Construction activities would include grading, excavation, and installation activities generating noise levels up 91 dBA L_{max} at 50 feet from an active construction area. The nearest sensitive receptor to the Phase 3 project site boundary is an existing residence located at the northwestern corner of South Redlands Avenue and Ellis Avenue, approximately 100 feet from the western most		

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
boundary of the Phase 3 site. This residence may be subject to short-term, intermittent, maximum noise reaching 85 dBA L_{max}, generated by construction activities on the project site. However, compliance with the construction hours specified in the City's Municipal Code would result in construction noise impacts that are less than significant.		
Cumulative Noise Impacts: It is not possible to predict if contiguous properties may be constructed at the same time and create cumulative noise impacts that would be greater than if developed at separate times, However, in the event that adjacent properties are developed at the same time as the proposed project, implementation of the required mitigation at each development site would reduce the cumulative impacts of the proposed project to less than significant levels. On-site operational noise level impacts on adjacent sensitive uses, both existing and future. On-site operational noises are individual noise occurrences and are not additive in nature, and would therefore, not be significant. As stated earlier, the baseline condition represents a noise environment that, in light of approved and continuing development in the project area, is not likely to be replicated. Comparing cumulative noise levels that would occur both with and without the project, the proposed project would not expose sensitive uses located adjacent to area roadways to excessive noise levels. In addition, it should be remembered that virtually the entire area surrounding and adjacent to the proposed project locations has been previously designated and zoned by the City for future commercial and industrial use. This means that the residential dwelling units located adjacent to roadways in the study area are nonconforming land uses. The cumulative impact analysis conducted for potential noise impacts analyzed a 2030 development scenario (as set forth above). As indicated, the future roadway noise assessment concludes that there will be no significant roadway noise impacts associated with existing, cumulative and cumulative	No mitigation is required	Not Applicable

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
plus project conditions. Therefore, there are no projects that would, in combination with the proposed project, produce significant noise impacts to sensitive land uses from on-site operational noise. Thus, no significant cumulative noise impacts would occur after implementation of the proposed mitigation measures.		
Significant Impacts		
Impact 4.9.6.1 Long-Term Operational Noise Impacts: The threshold for on-site traffic noise (e.g. truck delivery, loading, and unloading) is 80 dBA L_{max} during the day and 60 dBA L_{max} during the night. The EIR utilizes the 60 dBA L_{max} noise standard as it is the more conservative of the two noise standards. Operational noise standards for parking lots, trash compactors, and mechanical ventilation equipment is 60 dBA L_{max}. **Phase 1.** Potential long-term stationary noise impacts would primarily be associated with operations at the Phase 1 site. The proposed on-site warehouse and light industrial uses would generate noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilating, and air conditioning equipment and garbage compactor noise, and other noise-producing activities within the parking lot. Noise generated by HVAC equipment, trash compactors, and parking lot activities would be below the City's exterior noise standard of 60 dBA L_{max}. However, truck delivery, loading, and unloading noise is anticipated to be 64 dBA L_{max} at the nearest sensitive receptor. This is above the 60 dBA L_{max} threshold identified by the City and is considered a significant impact requiring mitigation. **Phase 2.** Similar to Phase 1, the proposed on-site warehouse and light industrial uses on Phase 2 would generate noise from truck delivery, loading/unloading activities at the loading areas, and other noise-producing activities within the parking lot. Noise generated by HVAC equipment, trash compactors, and parking lot activities would be below the City's exterior noise standard of 60 dBA L_{max}. However, truck delivery, loading, and unloading noise	**4.9.6.1A** Prior to the issuance of ~~certificates of~~ occupancy permits for Phase 1, the project proponent shall provide evidence to the City that an 8 foot high noise barrier shall be constructed along the east end of the loading dock and trailer parking area of the Phase 1 building and along the west and north sides of the trailer parking area on the west side of Building B. **4.9.6.1B** Prior to the issuance of ~~certificates of~~ occupancy permits for Phase 2, the project proponent shall provide evidence to the City that an 8 foot high noise barrier shall be constructed along the northern end of the dock and trailer parking area beginning from the eastern face of Building 1 across to the western face of Building 3 and across the northern end of the dock and trailer parking area beginning from the eastern face of Building 3 across to the western face of Building 4. **4.9.6.1C** Prior to the issuance of ~~certificates of~~ occupancy permits for Phase 3, the project proponent shall provide evidence to the City that a 12 foot high noise barrier shall be constructed on the Phase 3 site. The west portion of the noise barrier shall extend at a minimum, half the distance of the western trailer parking area for Building C. The southern portion of the noise barrier shall extend across the entire width of the trailer parking dock area to connect with the west face of Building C. **4.9.6.1D** Prior to the issuance of ~~certificates of~~ occupancy permits for any phasing, the project	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
is anticipated to be 62 dBA L_{max} at the nearest sensitive receptor. This is above the 60 dBA L_{max} threshold identified by the City and is considered a significant impact requiring mitigation. **Phase 3.** Similar to Phase 1 and Phase 2, the proposed on-site warehouse and light industrial uses would generate noise from truck delivery, loading/unloading activities at the loading areas, and other noise-producing activities within the parking lot. Noise generated by HVAC equipment, trash compactors, and parking lot activities would be below the City's exterior noise standard of 60 dBA L_{max}. However, truck delivery, loading, and unloading noise is anticipated to be 67 dBA L_{max} at the nearest sensitive receptor. This is above the 60 dBA L_{max} threshold identified by the City and is considered a significant impact requiring mitigation.	proponent shall provide evidence to the City that the noise barriers have a surface density of at least 3.5 pounds per square foot and have no openings or gaps. The noise barriers shall be constructed using an earthen berm, a free standing wall, or a combination of these two methods. The free-standing wall shall be constructed from ~~cinder~~ decorative block ~~or any masonry material~~ and the access gates shall be solid barriers, as opposed to wrought iron fences, and must have a surface density of at least 3.5 pounds per square foot and have no openings or gaps. The access gates can be constructed using 13 gauge sheet steel, 3/8" glass, 5/8" Plexiglas, 1¼" plywood, or a combination of these materials ~~constructed out of solid wood, steel sheets, or Plexiglas~~.	
Impact 4.9.6.2 Long-Term Rail Noise Impacts: **Phase 1.** The Airport Distribution Center does not include a rail component, therefore, no impacts associated with long-term rail noise would occur with implementation of Phase 1. No mitigation is required. **Phase 2.** The ultimate design of Phase 2 may include an extension of the drill track to accommodate direct rail cargo operations to the Phase 2 site. All of the existing noise sensitive land uses located between Nuevo Road and 7th Street are currently exposed to noise from existing railroad operations. The addition of 18 train cars on the rail line would increase the noise level from the railroad operations by 0.1 dBA CNEL. A noise level increase of this magnitude is insignificant and impacts are less than significant. The sensitive receptors located between 7th Street and Mapes Road do not currently experience noise from existing freight railroad operations and would be exposed to rail noise in excess of the City noise threshold. The noise impacts from proposed rail operations to existing sensitive receptors in this area are expected to be significant. Therefore, the sensitive receptors in these areas would require noise barriers to mitigate the noise from project related railroad	**4.9.6.2A** Prior to the issuance of ~~certificates of~~ occupancy permits for Phase 2, the project proponent shall coordinate with the City in the formation of a Quiet Zone along the proposed 11th Street and Mapes Road at-grade crossings. The project proponent and the City shall engage in the process of creating a Quiet Zone which includes but is not limited to the following actions: • Provision of a written Notice of Intent to Establish a Quiet Zone to the Federal Railroad Administration, California Public Utilities Commission, and the railroad carrier operating over the impacted right-of-way; and • Provision of evidence to the Federal Railroad Administration and the California Public Utilities Commission that the at-grade crossings meet all safety criteria for establishing a quiet zone.	Less Than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
operations. This is a significant impact requiring mitigation. **Phase 3: First Park South 215 Distribution Center.** The First Park South 215 Distribution Center does not include a rail component, therefore, no impacts associated with long-term rail noise would occur with implementation of Phase 3. No mitigation is required.		
4.10 PUBLIC SERVICES AND FACILITIES		
Less than Significant Impacts		
4.10.1.5.1 Police Services: The proposed project would be designed and operated per applicable standards required by the City and RCSD for new development in regards to public safety. In addition, the project would be required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures. Accordingly, impacts associated with police services for the proposed project would be less than significant.	No mitigation is required	Not Applicable
4.10.2.5.1 Fire Protection Services: The proposed project would be designed, constructed, and operated per applicable fire prevention/protection standards established by the RCFD and/or the City, or State. Such requirements may include (but shall not be limited to) provisions for smoke alarms; sprinklers; building and emergency access; adequate emergency notification; and hydrant sizing, pressure, and siting. The development of the proposed industrial uses would not cause fire staffing, facilities, or equipment to operate at a deficient level of service. Additionally, because the proposed project would be required to pay development impact fees to fund future fire facilities and services, impacts associated with fire protection services and facilities are less than significant.	No mitigation is required	Not Applicable
Cumulative Impacts: As additional development occurs in the City of Perris and region, there may be an overall increase in the demand for law enforcement and fire protection services, including personnel, equipment, and/or facilities. Increases in demand are routinely assessed by these agencies as part of the annual monitoring and	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
budgeting process. New development within the service areas of the RCSD and RCFD would be required to adhere to conditions established by fire and police service providers, and pay the applicable fees to ensure adequate staffing and equipment levels. Therefore, the cumulative impact on police and fire services in the City would be less than significant.		
Significant Impacts		
No significant public services impacts were identified.	Not Applicable	Not Applicable
4.11 TRANSPORTATION		
Less than Significant Impacts		
4.11.5.1 Air Traffic Patterns: The Perris Valley Airport is located near the center of the project area, adjacent to and east of the Phase 1 site. The proposed project does not include any structure or feature that would alter air traffic pattern or the level of air traffic at Perris Valley Airport; therefore, no significant air safety impact would occur. The Phase 1, Phase 2, and Phase 3 project sites are located approximately 8 miles south, 7 miles south, and 6.5 miles southeast of March Air Field, respectively. The March Air Field is a joint-use airport, used both for military and civilian purposes. March Inland Port (MIP) is the civilian portion of the airport. The portion of the Phase 3 site that is within Airport Influence III of MIP would not include any structures or features that would alter air traffic pattern or the level of air traffic at the MIP; therefore, no significant air safety impact would occur. In the absence of a significant impact, no mitigation is required.	No mitigation is required	Not Applicable
4.11.5.2 Design Hazard Features or Incompatible Uses: Roadway improvements in and around the project site would be designed and constructed to satisfy all City an Caltrans requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to project access requirements. Adherence to applicable City requirements would ensure the proposed project would not include any sharp curves or dangerous intersections.	No mitigation is required	Not Applicable

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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
The design and approval process for any new or improved rail crossing will occur separately from the City's EIR process. As the design and construction of any new or improved rail crossing will be required to adhere to applicable CA MUTSD standards and be reviewed and approved by the CPUC, it is reasonable to anticipate no railroad crossing hazard would result from the development or operation of the proposed uses. In the absence of a railroad design hazard, no impact would occur; therefore, no mitigation is required.		
4.11.5.3 Emergency Access: The roadway improvements that will take place as a part of this project will improve the traffic circulation in the area. This will improve the ability of emergency vehicles to access the project as well as the surrounding properties. Access to each of the project sites is designed to accommodate large trucks with trailers used for the distribution of goods to and from the warehouses. This would provide ample vehicular access for emergency vehicles. As with any development, access to and through the project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No mitigation is required	Not Applicable
4.11.5.4 Alternative Transportation Policies, Plans, or Programs: The project will be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. The provision of additional employment options in proximity to existing residential development will reduce vehicle miles traveled; therefore, the proposed project is consistent with City policies encouraging alternative transportation.	No mitigation is required	Not Applicable
Significant Impacts		
Impact 4.11.6.1 Year 2009 through 2011 Soil Import Traffic Conditions: One intersection is forecast to exceed the satisfactory level of service during the 2009 through	**4.11.7.5A** Prior to the issuance of a stockpile or grading permit for the importation of soil to the Phase 2 site the project applicant shall construct a 150	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
2011 soil import phase for the First Park South (Phase 2) site creating a significant impact.	northbound right-turn pocket at the intersection of Murrieta Road at Ethanac Road. **4.11.7.5B** Prior to the issuance of a stockpile or grading permit for the importation of soil to the Phase 2 site the project applicant shall construct a 435-foot deceleration lane with a minimum width of 11 feet at the entry point of the of the Phase 2 site to allow for trucks entering the site to slow to a safe turning speed without obstructing eastbound traffic volumes during the morning peak hours.	
Impact 4.11.6.2: (Year 2008 Site 1 Only); Impact 4.11.6.3 (Year 2008 Site 2 Only); Impact 4.11.6.4 (Year 2008 Site 3 Only); and Impact 4.11.6.5 (Year 2008 Sites 1, 2, and 3 combined): Ten intersections and four roadway segments would not meet or exceed the City's performance standards during peak hours in the 2008 with project conditions, creating a significant impact.	**4.11.7.5C** Prior to the issuance of building permits, the project applicant shall participate in the City of Perris Local Mitigation Impact Fee Program and pay the project's fair share for local improvements as outlined in Table 4.11.EEE~~BBB~~. The City shall ensure that the improvements outlined in Table 4.11EEE~~BBB~~ will be constructed pursuant to the timeframe established in the City of Perris Local Mitigation Impact Fee Program for the identified local improvements, or earlier if necessary to avoid identified significant impacts ~~fee program at that point in time necessary to avoid identified significant impacts on traffic~~. **4.11.7.5D** Prior to the issuance of building permits, the project applicant shall participate in the City of Perris' Development Impact Fee Program and pay the project's fair share for local improvements as outlined in Table 4.11.EEE~~BBB~~. The City shall ensure that the improvements outlined in Table 4.11.EEE~~BBB~~ will be constructed pursuant to the timeframe established by the City of Perris Development Impact Fee Program, or earlier if necessary to avoid identified significant impacts.~~fee program at that point in time necessary to avoid identified significant impacts on traffic~~. **4.11.7.5E** Prior to the issuance of building permits, the project applicant shall participate in the County of	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	Riverside Transportation Uniform Mitigation Fee (TUMF) Program and pay the project's fair share for regional improvements. The City shall ensure that the improvements outlined in Table 4.11.EEE~~BBB~~ will be constructed pursuant to the timeframe established by the County of Riverside TUMF Program, or earlier if necessary to avoid identified significant impacts ~~fee program at that point in time necessary to avoid identified significant impacts on traffic~~. **4.11.7.5F** Prior to issuance ~~completion~~ of occupancy permits for the Airport Distribution Center (Phase 1), the project shall have constructed the improvements outlined below. • Driveway 1 at Mountain Avenue: Install a cross-street stop on the northbound leg. Construct a northbound shared left-turn/right-turn lane and a westbound left-turn lane. • Driveway 2 at Mountain Avenue: Install a cross-street stop on the northbound leg. Construct a northbound shared left-turn/right-turn lane and a westbound left-turn lane. • Driveway 3 at Artlo Avenue: Install a cross-street stop on the southbound leg. Construct a southbound left-turn lane and a westbound right-turn lane. • Driveway 4 at Mountain Avenue: Install a cross-street stop on the northbound leg. Construct a northbound shared left-turn/right-turn lane and a westbound left-turn lane. • Driveway 5 at Artlo Avenue: Install a cross-street stop on the southbound leg. Construct a southbound shared left-turn/right-turn lane, an eastbound shared left-turn/through lane, and a westbound shared through/right-turn lane.	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	• Goetz Road at Mountain Avenue: Install a traffic signal (warranted under 2012 with project conditions). Construct a northbound left-turn lane. • Goetz Road at Driveway 6: Install a cross-street stop on the eastbound leg. Construct an eastbound right-turn lane. • Goetz Road at Driveway 7: Install a cross-street stop on the eastbound leg. Construct an eastbound right-turn lane. • Goetz Road at Driveway 8: Install a cross-street stop on the eastbound leg. Construct an eastbound right-turn lane. • Goetz Road at Artlo Avenue: Install a cross-street stop on the eastbound leg until a traffic signal is warranted. Construct a northbound left-turn lane and an eastbound left-turn lane$_{\pm}$ and an eastbound right-turn lane. • Mountain Avenue will be constructed to its ultimate half-section width (60-foot right-of-way) as a local roadway from the western project boundary to Goetz Road in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. • Goetz Road will be constructed to its ultimate half-section width (128-foot right-of-way) as an arterial roadway from Mountain Avenue to Artlo Avenue in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. A raised median should be constructed to restrict left-turn movements at the limited access driveways (Driveways 6, 7 and 8), located south of the proposed signalized intersection of Goetz Road and Mountain Avenue. • Artlo Avenue will be constructed to its ultimate	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	half-section width (60-foot right-of-way) as a local roadway from the road's western terminus to Goetz Road in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. • Sight distance at each project access point should be reviewed with respect to standard Caltrans/City of Perris sight distance standards at the time of preparation of final grading, landscape and street improvement plans. • Traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site. **4.11.7.5G** Prior to issuance ~~completion~~ of occupancy permits for the South Perris Distribution Center (Phase 2), the project shall have constructed the improvements outlined below to avoid identified significant impacts on traffic. • "A" Street at Mapes Road: Install a traffic signal. • "A" Street at Driveway 1: Install a cross-street stop on the westbound leg. Construct a southbound left-turn lane and a westbound shared left-turn/right-turn lane. • "A" Street at Driveway 2: Install a cross-street stop on the westbound leg. Construct a southbound left-turn lane and a westbound shared left-turn/right-turn lane. • "A" Street at Driveway 3: Install a cross-street stop on the westbound leg. Construct a southbound left-turn lane and a westbound shared left-turn/right-turn lane. • Driveway 4 at Mapes Road: Install a cross-street stop on the northbound leg. Construct a northbound right-turn lane.	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	• Driveway 5 at Watson Road: Install a cross-street stop on the southbound leg. Construct a southbound right-turn lane and an eastbound left-turn lane. • Driveway 6 at Mapes Road: Install a cross-street stop on the northbound leg. Construct a northbound shared left-right turn lane and a westbound left-turn lane. • Driveway 7 at Mapes Road: Install a cross-street stop on the northbound leg. Construct a northbound shared left-turn/right-turn lane and a westbound left-turn lane. • Driveway 8 at Mapes Road: Install a cross-street stop on the northbound leg. Construct a northbound right-turn lane. • Goetz Road at Mapes Road: Install a traffic signal. Construct a northbound left-turn lane, a southbound right-turn lane, an eastbound left-turn lane, and a right-turn lane. • Goetz Road at Mapes Road: Install a cross-street stop on the eastbound leg. Construct an eastbound right-turn lane. • "A" Street will be constructed to its ultimate half-section width (78-foot right-of-way) as a major collector roadway from Mapes Road to Watson Road in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. • Watson Street will be constructed to its ultimate full-section width (60-foot right-of-way) as a local road from "A" Street to the road's proposed eastern terminus in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element.	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	• Mapes Road will be constructed to its ultimate half-section width (94-foot right-of-way) as a secondary arterial roadway from "A" Street to Goetz Road in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. • Goetz Road will be constructed to its ultimate half-section width (128-foot right-of-way) as an arterial roadway from Mapes Road the southern project boundary in conjunction with development. This improvement is consistent with the City's General Plan Circulation Element. A raised median should be constructed to restrict left-turn movements at the limited-access driveway (Driveway 9), located south of the proposed signalized intersection of Goetz Road and Mapes Road. • Sight distance at each project access point should be reviewed with respect to standard Caltrans/City of Perris sight distance standards at the time of preparation of final grading, landscape and street improvement plans. • Traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site. **4.11.7.5H** Prior to issuance ~~completion~~ of occupancy permits for the First Park South 215 (Phase 3), the project shall have constructed the improvements outlined below to avoid identified significant impacts on traffic. • Redlands Avenue at Driveway 1: Install a traffic signal. Construct a southbound left-turn lane and a westbound shared left-turn/right-turn lane. • Driveway 2 at Ellis Avenue: Install a cross-street stop on the southbound leg (traffic signal warranted under 2030 with project conditions). Construct a southbound right-turn lane and an	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	eastbound left-turn lane. • Ellis Avenue will be constructed to its ultimate half-section width (128-foot right-of-way) as an arterial roadway from Redlands Avenue to the eastern project boundary in conjunction with development. • Redlands Avenue will be constructed to its ultimate full-section width (94-foot right-of-way) as a secondary arterial roadway from the northern project boundary (at 7th Street) to Ellis Avenue in conjunction with development. • Sight distance at each project access point should be reviewed with respect to standard Caltrans/City of Perris sight distance standards at the time of preparation of final grading, landscape and street improvement plans. • Traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site. **4.11.7.5l** Prior to the issuance of a stockpile or grading permit for the importation of soil to the Phase 2 site, the project applicant shall obtain haul/truck route permits from the applicable jurisdictions. These permits may include the following: • The applicant shall pay the cost of random weight measurements for trucks hauling material from the site to ensure that the trucks are not violating weight restrictions. The applicant shall place an amount on deposit as determined by the permitting jurisdiction to fund such testing. • Haul trucks shall be limited to maintain the level of service standards identified in the in the General Plan during the peak and off peak traffic periods. • Limitation of haul or trucking hours, number of	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	loads per day, and the posting of traffic control and traffic control personnel at affected locations along the haul route. • During construction activities, the traffic flow will be maintained at the highest level possible with the use of standard traffic control devices. Typical traffic control measures may include, but are not limited to, warning signs, warning lights, and flaggers. Implementation of traffic control measures will provide guidance and navigational tools throughout the project area in order to maintain traffic flow and levels of safety during construction. All traffic control measures shall be subject to approval of the affected jurisdiction through an encroachment permit. • Deflection testing/pavement evaluation of all streets on the proposed haul route at the applicant's expense prior to and after haul will be required on local streets and shall be responsible to repair the roads along the haul routes to their existing condition or better and prior to grant of a grading permit, shall post adequate security in an amount determined by the City Engineer to cover both short-term and project-length damage to the roads. A portion of the security, as determined by the City Engineer, shall be in the form of a cash deposit to provide repairs to short-term haul road damage during the hauling periods that the applicant does not effectively repair on its own under the conditions of the haul permit. • The applicant or its contractor shall provide weigh tickets or other means acceptable to the City Engineer for all haul vehicles through the use of scales at the authorized site exit onto public streets. Alternatives that will guarantee trucks are hauling below maximum weight loads will be considered upon submittal to the City	

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	Engineer. • Effective ongoing repairs during and after the hauling period may include filling pot holes, crack sealing, base repairs, seal coating, and overlays where warranted. • All trucks shall be covered whether or not they are loaded. • All trucks shall be washed at least weekly or as necessary to meet BMPs. • Comply with all applicable BMPs.	
Impact 4.11.6.6. (Year 2012 Sites 1 and 2 Only); Impact 4.11.6.7 (Year 2012 Sites 1, 2, and 3 Combined): Sixteen intersections and 27 roadway segments would not meet or exceed the City's performance standards during peak hours in the 2012 with project (Sites 1, 2, and 3 combined) conditions, creating a significant impact.	**Mitigation Measures 4.11.7.5C** through **4.11.6.7I~~H~~**	Less Than Significant
Impact 4.11.6.8. Year 2030 With Project, With Evans Road/I-215 Interchange and Impact 4.11.6.9. Year 2030 With Project, Without Evans Road/I-215 Interchange: 21 intersections and 43 roadway segments would not meet or exceed the City's performance standards during peak hours in the 2030 with project with and without Evans Road/I-215 interchange conditions, creating a significant impact.	**Mitigation Measures 4.11.7.5C** through **4.11.6.7I~~H~~**	Less Than Significant
Cumulative* Intersection and Roadway *Traffic Impacts: Cumulative analysis forecasts that, with the development of the proposed project and the cumulative projects, the identified intersections will require improvements in order to maintain the City's performance standard. Although the suggested improvements are consistent with the City's General Plan, the project will be responsible for contributing its fair share toward the funding of the future improvements via payment of the City's traffic signal and road improvement fees and other fees used to fund roadway and roadway-related improvements. Therefore, the proposed project would still result in a less than significant cumulative impact.	**Mitigation Measures 4.11.7.5C** through **4.11.6.7I~~H~~**	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Cumulative Freeway Mainline Traffic Impacts: The cumulative analysis forecast for year 2030 indicates that several segments of the I-215 freeway mainline will exceed the target level of service threshold (LOS E). No further mitigation measures or improvements are recommended at this time because changes and/or expansions to the I-215 Freeway mainline are not within the jurisdiction of the City of Perris. Rather, those improvements are planned, funded, and constructed by the State through a complicated legislative and political process involving the State Legislature, the California Transportation Commission (CTC), the California Business, Transportation and Housing Agency (BT&H), and Caltrans. For these reasons, there are no available and feasible mitigation measures available to mitigate the projects de minimis cumulative contribution to traffic on the I-215 Freeway under long-range (2030) conditions and the project's cumulative impact is considered to be significant and unavoidable.	No mitigation is feasible	Significant and Unavoidable
4.12 UTILITIES AND SERVICE SYSTEMS		
Less than Significant Impacts		
4.12.5.1: Wastewater Treatment Requirements. The industrial uses of the proposed project would result in a connection to the existing sewer system that is ultimately routed to the PVRWRF. Since all wastewater generated in the City is treated by the PVRWRF, the wastewater that would be generated by the proposed industrial uses would be treated by the PVRWRF. Because the PVRWRF is considered to be a POTW, operational discharge flows treated at the PVRWRF would be required to comply with waste discharge requirements contained within the WDRs for the facility. Compliance with condition or permit requirements established by the City, and waste discharge requirements at the PVRWRF would ensure that discharges into the wastewater treatment facility system from the operation of the proposed project would not exceed applicable Santa Ana Regional Water Quality Control Board wastewater treatment requirements. Therefore, no significant impact related to this issue would occur and no mitigation would be required.	Not applicable	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.12.5.2: Construction or Expansion of Potable Water Treatment Facilities. All necessary water distribution facilities would be installed simultaneously with required roadway frontage improvements for the Phase 1 and Phase 3 sites. Therefore, the connection to the existing water delivery system would not result in substantial disturbance of existing roadways or water facilities. When combined, the potable water demand that would be required for all three phases would total 363,960 gpd or 0.36 mgd. The proposed project is anticipated to be fully operational by 2013. The additional water treatment demand of 0.36 mgd resulting from the operation of all three phases would be approximately 0.150 and 0.21 percent of the future summer and winter surplus treatment capacity of the Mills Filtration Plant. Because capacity exists at the Mills Filtration Plant for all phases of the proposed project, no additional expansion of the Mills Filtration Plant would be required. The proposed project would be conditioned to construct all associated water facilities needed to distribute water throughout the development area. Adherence to standard requirements identified by EMWD and the City associated with the design and installation of new water infrastructure and connections to existing water infrastructure would ensure that no significant impacts would result from the construction or operation of the proposed project. Therefore, impacts related to this issue would be less than significant and no mitigation measures would be required.	Not applicable	Less Than Significant
4.12.5.3: New or Expanded Wastewater Treatment Facilities. All necessary sewer facilities would be installed simultaneously with required roadway frontage improvements for all phases. For areas in which there are no existing roadways, the areas of disturbance would be restored to their pre-construction condition. Therefore, the installation of sewer facilities would not result in substantial disturbance of the environment. When combined, the amount of wastewater generated by all three phases would total 147,985 gpd or 0.147 mgd.	Not applicable	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Because capacity exists at the PVRWRF for all phases of the proposed project, no additional expansion of the PVRWRF would be required. As previously identified, the proposed project would be conditioned to construct all associated sewer lines and infrastructure needed to serve the project sites. Adherence to standard requirements identified by EMWD and the City associated with the design and installation of new sewage infrastructure and connections to existing sewer infrastructure would ensure that no significant impacts would result from the construction or operation of the proposed project. Therefore, impacts related to this issue would be less than significant and no mitigation measures would be required.		
4.12.5.4: Adequate Water Supply. It was determined that existing facilities in the Study Area will not be able to meet future fire flow requirements at ultimate developed conditions. Therefore, approximately 9,800 linear feet of 18-inch pipeline and 2,650 linear feet of 12-inch pipeline will be required to provide adequate service for the calculated future demand of the Study Area. When combined, the potable water demand that would be required for all three phases would total 363,960 gpd or 407.82 AFY The proposed project would be built in phases with Phases 1 and 2 being constructed and operational by 2012 and Phase 3 being constructed and operational by 2013. Therefore, the proposed project is anticipated to be fully operational by 2013. Since EMWD determined that existing water supplies were available for each of the phases of the project, it is reasonable to conclude that when combined, the entire proposed project would have adequate water supply to keep it in operation. Since there is existing surplus water supply for the entire project, impacts associated with this issue are less than significant.	Not applicable	Less Than Significant
4.12.5.5: Wastewater Treatment Capacity. Phase 1 and Phase 2 of the proposed project would be operational in 2012. When combined, the wastewater generated from Phase 1 and 2 would total 84,648 gallons (0.084 mgd) per day. The additional wastewater treatment demand of 0.084	Not applicable	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
mgd resulting from the development of Phase 1 and Phase 2 would total approximately 2.5 percent of current year (2009) surplus treatment capacity. Improvements planned for the PVRWRF facility would increase at this facility from 18 mgd to 22 mgd by the year 2013. It is anticipated that when Phase 3 is completed, improvements to the PVRWRF would have already been completed. With all three phases in operation, the total amount of wastewater generated would be approximately 147,985 gallons (0.147 mgd) of wastewater. Utilizing the year (2008) wastewater treatment surplus capacity of 5.0 mgd, the additional wastewater treatment demand of 0.147 mgd that would be generated by the proposed project would represent 2.9 percent of the existing wastewater treatment surplus capacity. The improvements to the PVRWRF facility would further increase the existing wastewater treatment surplus capacity. Since there is existing surplus capacity for the entire project and because additional capacity would be added to the PVRWRF, impacts associated with this issue are less than significant. No mitigation measures are required.		
Cumulative Impacts: ***Water Supply.*** The cumulative area for water supply-related issues is the EMWD service area. Existing and future development within the EMWD's service area would demand additional quantities of water. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (i.e., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply. As previously identified, Metropolitan will continue to rely on the plans and policies outlined in its Regional Urban Water Management Plan (RUWMP) and Integrated Resource Plan (IRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary	Not applicable	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. Metropolitan is maximizing supplies from existing agreements for water supply from its Palo Verde Crop Management and Water Supply Program and working with the State of Arizona in withdrawing water previously stored in their groundwater basin. In addition, Metropolitan's IRP supply portfolio includes pursuing water transfers as needed, such as the purchase of 200,000 AF of previously stored SWP supplies in the San Bernardino groundwater basin. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and RUWMP concludes that with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2030. Because the EWMD would have water supplies for projected growth through 2030 in wet, dry, and multiple-dry years, cumulative impacts to water supply would be less than significant. ***Wastewater.*** The cumulative area for wastewater-related issues is the PVRWRF service area. Cumulative population increases and development within the area serviced by the PVRWRF would increase the overall regional demand for wastewater treatment service. Ultimate expansion of this facility is expected to be 30 mgd. The PVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Because the PVRWRF would expand as growth occurred, cumulative development would not exceed the capacity of the wastewater treatment system. Because the proposed project would not require the expansion of existing infrastructure, only connections to existing infrastructure, the contribution of the proposed project would not have a cumulatively significant impact on		

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
wastewater infrastructure. As the wastewater from all development within the service area of the PVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur. Because the projected wastewater generation of industrial uses represents approximately 2.9 percent of the average wastewater surplus capacity, and because there are no projects that would, in combination with the proposed industrial uses, result in any significant impact related to wastewater treatment or cause significant environmental effects, no significant cumulative impacts associated with wastewater would occur. ***Drainage.*** The cumulative area for drainage-related issues is the MDP area. Cumulative population increases and development within the MDP area would increase the amount of impervious surfaces and therefore the amount of stormwater runoff generated within the area. As the MDP would provide an overall planned drainage system, infrastructure associated with the MDP would take into account cumulative increases in stormwater within the area. Because the MDP would be implemented as projects are developed in the area, cumulative development would not exceed the capacity of the planned drainage system. Because the proposed project would have interim drainage infrastructure in place that would accommodate project related flows, the proposed project is not reliant on the implementation of the MDP. However, when implementation of the MDP occurs, the proposed project would connect to MDP facilities. Since the MDP facilities take into account the development of the proposed project, the contribution of the proposed project's stormwater flows would not have a cumulatively significant impact on stormwater infrastructure.		
Significant Impacts		
4.12.6.1: Stormwater Drainage Requirements. MDP facilities would consist of underground stormwater piping and open channels. Similar to what was identified for water and sewer infrastructure improvements, the implementation of the	**4.12.6.1A** Prior to the issuance of a grading permit, the project proponent shall submit a detailed grading and drainage plan, with supporting engineering calculations, to the City Engineer for review and	Less Than Significant

Table 1.A: South Perris Industrial Environmental Summary

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
MDP would not have a significant impact as the installation of these infrastructure features would occur concurrently with the associated roadway frontage improvements in the project study area. Because there is an excess capacity of 6.7 acre-feet (20.3 acre-feet – 13.6 acre-feet = 6.7 acre-feet) of storage area available from the on-site detention basins, it is anticipated that the proposed project would have adequate drainage capacity that would result in post-development flows being reduced to pre-development flows before leaving the project site. To ensure the project would have adequate drainage capacity, mitigation has been identified.	approval. The plans shall incorporate relevant requirements identified by the City, and/or identified in the Uniform Building Code, and/or site-specific geotechnical investigations. The plans shall provide evidence that the storm drainage system would be adequate to convey water for the design storm event (as specified by the City) from the project site.	

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2.0 INTRODUCTION AND PURPOSE

This EIR is intended to serve as an informational document to be used by the City in assessing the environmental effects that may result from the construction and operation of the proposed on-site uses, and to identify mitigation measures to avoid or minimize significant environmental impacts. This document is also a public disclosure document available to agencies and the public for review and comment prior to the consideration of the proposed project by the City.

This section of the EIR describes the purpose of the CEQA, the intended uses of this EIR, and summarizes the incorporated documents and technical reports. Discussion of the public review of the EIR includes a summary of the Initial Study and NOP and the public scoping meeting that was held. The twelve environmental issues that may be significantly impacted by the construction and operation of the proposed project are identified.

2.1 DOCUMENT FORMAT

To assist the reader's review of the document, the following describes the format of this EIR.

Section 1.0 *Executive Summary* provides a summary of the EIR document and (in Table 1.B) identifies potentially significant impacts, mitigation measures, and the level of significance of each impact following mitigation.

Section 2.0 *Introduction and Purpose* provides a discussion of the EIR's purpose, focus, legal requirements, and an outline of the document's format and content.

Section 3.0 *Project Description* provides a detailed description of the proposed project, discretionary actions required to implement the project, and objectives of the proposed project.

Section 4.0 *Existing Setting, Impacts, and Mitigation Measures* evaluates the impacts associated with the proposed project. This section is organized by issue area and follows the following framework:

- *Existing Setting*. Information in the existing setting contains a discussion of the local and regional environment conditions (environmental and man-made) in existence at the time this EIR was prepared. Existing setting information provides the reader with the "baseline" from which future impacts are analyzed, and provides a standard against which to measure these impacts.
- *Existing Policies and Regulations.* Regulatory requirements and policies (federal, state, and local) applicable to the issue area are summarized.
- *Thresholds of Significance*. Determinations regarding the significance of potential impacts resulting from implementation of the proposed project are provided. These thresholds represent the criteria used in this EIR to determine whether identified impacts are significant.
- *Methodology*. A brief summary of the methods and resources utilized in the preparation of the environmental analysis.
- *Impacts*. Potential impacts are identified based on implementation of the proposed project.
    - *Impact Analysis.* An analysis of potential impacts of the proposed project is presented in this section. This discussion focuses on the impacts of implementation of the proposed project, and includes potential short-

term/long-term and direct/indirect project impacts, and consistency with applicable planning documents or regulations.

- *Mitigation Measures*. The measures proposed to mitigate any potential impacts of the proposed project are identified.
- *Level of Significance after Mitigation* provides a conclusion as to whether implementation of the proposed project will reduce the project-related and cumulative impacts to a level that is less than significant.

- *Cumulative Impacts.* This discussion focuses on the potential environmental effect of the proposed project combined with the effects of reasonably foreseeable development within the project study area.

Section 5.0 *Additional Topics Required by CEQA* contains discussions of additional topics required by CEQA, including effects found not to be significant, unavoidable effects of the proposed project, and significant irreversible environmental changes. The proposed project's consistency with regional plans (discussed in Section 4.8.5.2) and potential to induce growth (discussed on Section 4.10) are summarized in this section.

Section 6.0 *Alternatives* contains discussion of alternatives to development of the proposed project. As allowed by CEQA, the impacts of these alternatives are evaluated at a more general level than the analyses of the proposed project that is contained in Section 4.0. This section also evaluates the proposed effects of the No Project Alternative and identifies the environmentally superior alternative.

Sections 7.0–9.0 Contain listings of organizations and persons consulted in preparation of the EIR, references cited, a list of the EIR preparers, and acronyms used in the document.

The *Appendices* contain a copy of the NOP, NOP mailing list, NOP comment letters and responses, public scoping meeting information, technical reports, referenced material, and other relevant correspondence received during the course of the analysis of the proposed project.

2.2 PURPOSE OF THE ~~DRAFT~~ ENVIRONMENTAL IMPACT REPORT

CEQA requires that the proposed project be reviewed to determine the environmental effects that would result if the project were approved and implemented. The City has the responsibility for preparing, processing, and determining whether to approve the proposed project and certify this EIR. As Lead Agency, the City has the authority to make decisions regarding discretionary actions relating to implementation of the proposed project.

This EIR has been prepared to evaluate the potential environmental impacts associated with the construction and operation of the proposed on-site uses for the three industrial distribution facilities proposed as well as infrastructure associated with these portions of the proposed project. Additionally, The EIR programmatically analyzes the impacts associated with the construction and operation of the master planned infrastructure within the project area. Alternatives to the proposed project are also discussed and mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts have been identified. This EIR has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City.

The objective of the EIR is to inform City decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental consequences that may be associated with the approval and implementation of the proposed project.

2.2.1 Purpose of the California Environmental Quality Act

According to Section 15002 of *CEQA Guidelines*, the basic purposes of CEQA are to:

- Inform government decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

2.2.2 Intended Use of This Draft EIR

This EIR is intended to serve as an informational document to be used by the City in assessing the environmental effects of the proposed project and mitigation measures recommended to avoid or minimize identified significant impacts. This document is also a public disclosure document available to agencies and the public for review and comment prior to consideration of the discretionary actions required for project approval.

The City, as the Lead Agency, has the responsibility for preparing the EIR for the proposed project, as well as for reviewing and approving the associated project-related actions. As permitted under *CEQA Guidelines* (§15084[d-e]), LSA Associates, Inc. (LSA) has prepared the EIR; however, prior to certification, this EIR must be subjected to the independent review and analysis by the City. The information included in and the conclusions reached in the EIR must represent the City's independent judgment. This EIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. The EIR is intended to provide decision-makers and the general public with relevant environmental information to use in considering approval of the proposed project by the City.

2.2.3 Incorporated Documents

CEQA (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference shall be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

- *City of Perris General Plan, Land Use Element,* adopted April 26, 2005.
- *City of Perris General Plan, Circulation Element*, adopted June 14, 2005.
- *City of Perris General Plan, Conservation Element,* adopted July 12, 2005.
- *City of Perris General Plan, Noise Element*, adopted August 30, 2005.
- *City of Perris General Plan, Safety Element,* adopted October 25, 2005.
- *Environmental Impact Report City of Perris General Plan 2030*, State Clearinghouse No. 2004031135, Hogle-Ireland, Inc., certified April 26, 2005.
- City of Perris Municipal Code. Various chapters.
- City of Perris Zone Map, May 31, 2005.

2.2.4 Technical Reports

Various technical reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from the following technical reports has been integrated into the EIR.

- **Appendix A:** Initial Study, Notice of Preparation, and Notice of Preparation Comment Letters.
- **Appendix B:** Agricultural Resource Studies.
  - Appendix B-1: California Land Evaluation and Site Assessment Model Sheets.
  - Appendix B-2: *Economic Viability of Agriculture, Perris Valley*. CBRE Consulting, March 18, 2009.
- **Appendix C:** Air Quality Studies (3 Reports):
  - Appendix C-1: *Air Quality Impact Analysis*, URS Corporation, October 2, 2009.
  - Appendix C-2: *Greenhouse Gas Analysis,* URS Corporation, February 9, 2009.
  - Appendix C-3: *Health Risk Assessment,* URS Corporation, June 4, 2009.
  - Appendix C-4: Soil Import Air Quality Assessment, First Park South Perris Site, March 18, 2009.
- **Appendix D:** Biological Resources Studies (5 Reports):
  - Appendix D-1: *Focused Burrowing Owl Survey Report,* URS Corporation, June 17, 2009.
  - Appendix D-2: *Preliminary Jurisdictional Determination Report*, South Perris Distribution Center Project, URS Corporation, June 17, 2009.
  - Appendix D-3: *Special Status Plant Survey Report,* URS Corporation, June 17, 2009.
  - Appendix D-4: *Vernal Pool and Fairy Shrimp Survey Results – South Perris Industrial Project, Riverside County, California*, URS Corporation, March 18, 2009.
  - Appendix D-5: *Western Riverside Multi-Species Habitat Conservation Plan Compliance Report,* URS Corporation, June 17, 2009.
- **Appendix E:** Cultural and Paleontological Studies (4 Reports):
  - Appendix E-1: *Cultural Resources Assessment*, Phase I Archeological Assessment of First Park South 215, URS Corporation, July 15, 2008.
  - Appendix E-2: *Cultural Resources Assessment,* Goetz Road Project, LSA Associates Inc. May 2009.
  - Appendix E-3: *Paleontological Resources Assessment*, Goetz Road Project, LSA Associates, Inc., July 12, 2006.
  - Appendix E-4 *Phase I Archaeological Assessment of Proposed Airport Distribution Center*, URS Corporation, January 29, 2009.
- **Appendix F:** Hazards and Hazardous Materials (7 Reports):
  - Appendix F-1: *Phase 1 Environmental Site Assessment, Concrete Casting Operation, 2020 Goetz Road,* Terracon, Inc., May 25, 2006.
  - Appendix F-2: *Phase 1 Environmental Site Assessment, 205-Acre Tract, Goetz Road and Mapes Road*, Terracon, Inc., May 22, 2007.
  - Appendix F-3: *Phase 1 Environmental Site Assessment, 215 Acres of Agricultural Land Northeast of Ellis Avenue and Redlands Avenue*, Advantage Environmental Consultants, LLC, October 3, 2007.

- Appendix F-4: *Final Limited Site Investigation Report, Concrete Casting Operation, 2020 Goetz Road,* Terracon, Inc., September 20, 2006.
- Appendix F-5: *Final Limited Site Investigation Report, 205-Acre Tract, Goetz Road and Mapes Road*, Terracon, Inc., May 22, 2007.
- Appendix F-6: *Environmental Site Assessment of the Property Located on the Southwest Corner of the Intersection of Mapes Road and Goetz Road,* Carlin Environmental Consulting, June 22, 2005.
- Appendix F-7: *Phase II Environmental Site Assessment, South 215 Property, Ellis Avenue and Redlands Avenue, Perris California 92570,* Advantage Environmental Consultants, LLC, February 9, 2009.

- **Appendix G:** Hydrology Studies (3 Reports):
  - Appendix G-1: *Preliminary Hydrology Report for Airport Distribution Center,* Albert A. Webb Associates, October 23, 2008.
  - Appendix G-2: *Preliminary Hydrology Report for First Park South I-215*, Albert A. Webb Associates, October 21, 2008.
  - Appendix G-3: *Preliminary Hydrology Report for South Perris Distribution Center,* Albert A Webb Associates, October 7, 2008.
- **Appendix H:** Water Quality Studies (3 Reports):
  - Appendix H-1: *Preliminary Water Quality Management Plan for Airport Distribution Center,* Albert A. Webb Associates, June 3, 2008.
  - Appendix H-2: *Preliminary Water Quality Management Plan for First Park South 215,* Albert A. Webb Associates, February 2, 2009.
  - Appendix H-3: *Preliminary Water Quality Management Plan for South Perris Distribution Center,* Albert A. Webb Associates, February 2, 2009.
- **Appendix I:** *Acoustical Impact Analysis*, South Perris Industrial, URS Corporation, May 28, 2009.
- **Appendix J:** Traffic Impact Analysis (3 Reports):
  - Appendix J-1: *Traffic Impact Analysis, South Perris Industrial Distribution Center,* Urban Crossroads, April 17, 2009.
  - Appendix J-2: *At-Grade Railroad-Highway Crossing Analysis, South Perris Industrial Distribution Center,* Urban Crossroads, November 19, 2008.
  - Appendix J-3: Soil Import Traffic Assessment, First Park South, Urban Crossroads, March 18, 2009.
- **Appendix K:** Water Supply Assessments (3 Reports):
  - Appendix K-1: *Water Supply Assessment* (WSA) *for the Airport Distribution Center,* Eastern Municipal Water District, September 19, 2007.
  - Appendix K-2: *Water Supply Assessment for the First Park South Perris Distribution Center,* Eastern Municipal Water District, August 20, 2008.
  - Appendix K-3: *Water Supply Assessment for Tentative Parcel Map 35877, First Park South 215,* Eastern Municipal Water District, August 20, 2008.
- **Appendix L:** *Water, Sewer, and Recycled Water Utility Report for South Perris Distribution Center,* Albert A. Webb Associates, July, 2009.

These documents have been included in their entirety as appendices to this EIR. Additionally, these documents are available for review at the following location:

Perris City Hall
Planning Division
135 North "D" Street
Perris, California 92570-2200
Phone: (951) 943-5003
Fax: (951) 943-8379
Monday – Friday 8:00 a.m. – 5:00 p.m.

2.3 PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This EIR was distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code §21092(b)(3), the EIR has been provided to all parties who have previously requested copies. The Notice of Completion and Notice of Availability of the EIR have been distributed as required by CEQA. During the 45-day public review period, the EIR and technical appendices have been made available for review.

Written comments regarding this EIR should be addressed to:

Diane Sbardellati, Associate Planner
Planning Division
135 North "D" Street
Perris, California 92570-2200
Phone: (951) 943-5003

After the 45-day public review period, written responses to all significant environmental issues raised will be prepared. These responses will be available for review for a minimum of 10 days prior to the public hearing before the City of Perris Planning Commission, at which time the certification of the Final EIR will be considered. The Final EIR (which includes the Draft EIR, the public comments and responses to the Draft EIR, and findings) will be included as part of the environmental record for consideration by the City decision-makers.

2.3.1 Initial Study and Notice of Preparation

The City initiated the environmental process with the completion of an Initial Study. The City used an Initial Study to determine which impacts would be less than significant and did not warrant further environmental review, while identifying those issues that required further analysis in an EIR. The City circulated over 400 copies of the Initial Study with an NOP for the South Perris Industrial EIR to State, regional, local agencies and adjacent properties owners on July 10, 2008 for a 30-day review period.[1] The Initial Study was made available to the public during and after the comment period. The NOP was distributed to the State Clearinghouse, as well as agencies, organizations, and persons who may provide appropriate comment on the proposed project as well as the potential environmental impacts that may result from the construction and operation of the proposed on-site uses.

Comments received regarding the NOP were used to help identify impacts that could result from implementation of the proposed project. The City received twenty-six comment letters to the NOP. The NOP and Initial Study, as well as the comment letters received regarding the NOP, are included in Appendix A of the EIR. A brief summary of NOP comment letters is provided below in Table 2.A.

[1] The Notice of Preparation 30-day public review period was from July 10, 2008 to August 9, 2008.

Table 2.A: Notice of Preparation Comment Letters Received

Agency	Date	Comments	Addressed in Section(s)
Native American Heritage Commission	July 3, 2008	This letter requests that the City consult with California Native American tribes identified by the Native American Heritage Commission for the purpose of protecting, and/or mitigating impacts to cultural places.	Section 4.5
Governor's Office of Planning and Research	July 14, 2008	This letter acknowledges receipt of the NOP and identified the 30-day review period.	Not applicable.
Tom Risher	July 15, 2008	This letter voices concerns regarding the use of rail access to the Phase 2 portion of the project, local area traffic in particular on A Street, Air pollution in the vicinity of a school, and the potential for Phase 2 to impact potential Stephens' kangaroo rat.	Figure 3.3C, Section 4.3.5.3, Section 4.4.5.1 Section 4.4.5.3 Table 4.11.F, Table 4.11.RR
Department of Transportation District 8	July 15, 2008	This letter recommends the that the analysis of 2030 traffic conditions include two scenarios: with and without the proposed Ellis Avenue Interchange and also that the year 2030 traffic analysis include analysis with ramp metering on the I-215 ramps.	Section 4.11.3 Pg. 4.11-33 through Pg. 4.11- 42
Soboba band of Luiseno Indians	July 16, 2008	This letter requests further consultation with the tribe regarding the project and copies of any other archaeological or cultural resource documentation.	Section 4.5.5.2
Native American Heritage Commission	July 16, 2008	This letter requests that the EIR analyzes impacts on cultural resources and provides recommendations for proper analysis.	Section 4.5.5.2
Department of Transportation Division of Aeronautics	July 17, 2008	This letter recommends that the project uses the Caltrans Airport Land Use Planning Handbook for analysis of the project in relation to airport hazards. The letter also states that the project should follow Public Utilities Code Section 21659 and requests that consideration be given to land use compatibility in the vicinity of an airport.	Section 4.8.2.2 Section 4.6.6.2
South Coast Air Quality Management District (SCAQMD)	July 22, 2008	This letter requests a copy of the Draft EIR upon its completion and provides sources of information related to air quality analysis as to be used to meet the requirements of the SCAQMD.	Section 4.3
Riverside County Fire Department	July 22, 2008	This letter requests and includes mitigation measures should be considered to reduce impacts to fire services.	Section 4.10.3.5.1
Morongo Band of Mission Indians	July 23, 2008	This letter requests that the project comply with State Health and Safety Code Section 7050.5 and that standard mitigation regarding the discovery of cultural resources be implemented.	Section 4.5.5.2 M.M. 4.5.5.1A

Table 2.A: Notice of Preparation Comment Letters Received

Agency	Date	Comments	Addressed in Section(s)
Sunwest Enterprises	July 24, 2008	This letter expresses concerns regarding the property adjacent to Phase 2 of the project and the impacts Phase 2 may have on the adjacent property's plan for development. The comments are in regard to land use compatibility, railroad service in the area, the import of dirt to the project and the associated air and noise impacts, drainage concerns, flood control improvements, adjacent street improvements, and area utilities and services.	Section 4.3.5.5 Section 4.7.5.4
Perris Property, LLC	July 28, 2008	This letter requests that the EIR analyze the Ellis/Evans and I-215 Interchange, the project's impacts on the Perris Valley Storm Drain and the San Jacinto River Project and would like the City to ensure the project's General Plan Amendment and Zone Change do not impact the Perris Property's rights under the existing North Perris Specific Plan for the portion east of the I-215.	Section 4.11.3 Section 4.12.6.1
Brian Chichua	July 28, 2008	This letter expressed support for the project and no comment regarding the content of the EIR.	Not applicable.
Ida Mae Minnich	July 30, 2008	This letter expresses the adjacent property owner's concerns regarding the potential impacts of the project on local drainage.	Section 4.7.5.4
Morongo Band of Mission Indians	July 31, 2008	This letter requests that the project comply with State Health and Safety Code Section 7050.5 and that standard mitigation regarding the discovery of cultural resources be implemented.	Section 4.5.5.2 M.M. 4.5.5.1A
Pacific Summits Consultants, LTD.	August 5, 2008	This letter requests that the project's impacts on the San Jacinto River Project be analyzed and that the project's impacts on the proposed Ellis/Evans I-215 Interchange be analyzed.	Section 4.11.3; Section 4.7.5.4
Bill's Sweeping Service, INC.	August 5, 2008	This letter expresses an adjacent land owner's interest in having recycled water lines installed wherever new water and/or sewer lines are required.	Section 4.12.5.5
The Garrett Group	August 7, 2008	This letter notes that the Garrett Group manages property in the study area and will be providing comments as necessary on the EIR. This letter also suggests that a parcel adjacent to but outside of the study area be included in the study area.	Not applicable.
Riverside County Flood Control District and Water Conservation District	August 7, 2008	This letter expresses comments and concerns regarding the following: the project's impacts to the Romoland Master Drainage Plan and associated facilities, the project's compliance with the San Jacinto River Plan Project, the environmental impacts of the construction of on and offsite stormwater facilities, MSHCP compliance, impacts to the District's right-of-way, easements or facilities, Potential permitting requirements for the project, and other impacts associated with the alteration of drainage patterns.	Section 4.7.5.4 Section 4.4.6.2 Section 4.4.61 Section 4.7.6.3

Table 2.A: Notice of Preparation Comment Letters Received

Agency	Date	Comments	Addressed in Section(s)
Public Utilities Commission	August 8, 2008	This letter expresses concerns regarding the potential for increased vehicle and pedestrian traffic at the nearby Ellis Avenue railroad crossing.	Section 4.11.5.2
Pechanga Band of Luiseno Indians	August 8, 2008	This letter requests that the project complete a thorough cultural resources assessment and that the tribe is permitted to participate in surveys and studies of the project area. The letter also requests that the project comply with State Law regarding cultural resources.	Section 4.5.5.2
Germania Corporation	August 6, 2008	This letter expresses the San Jacinto River Coalition's interest in seeing and reviewing the plans and conditions associated with the project and also requests that the City considers the Coalition's Alternative 5[1] in relation to the project.	Not applicable. The proposed project avoids areas adjacent to the San Jacinto River. Portions of Phase 2 and Phase 3 that are adjacent to the River will be left undeveloped.
Riverside County Sheriff's Department	August 9, 2008	No recommendations	Not applicable.
Pala Band of Mission Indians	August 21, 2008	The letter states that the project as described is not within the recognized Pala Indian Reservation and is beyond the boundaries of territory that the Tribe considers its Traditional Use Area.	Not applicable.
California Department of Conservation	August 29, 2008	The letter states that the project is located on farmland of statewide importance or prime farmland, suggests these issue be addressed, and offers potential mitigation for significant impacts.	Section 4.2.4.1
Riverside Transit Agency	September 16, 2008	The letter identifies six bus turnout locations and suggests that the project include them.	Section 4.11.5.2

Note: All NOP response letters (along with the Initial Study) are included in Appendix A of the EIR.

2.3.2 Planning Commission Workshop and Public Scoping Meeting

Two joint public workshops/public scoping meetings with the City of Perris Planning Commission were held at the Perris City Hall, City Council Chambers on June 18 and August 6, 2008, both at 6:00 p.m. The project proponent described the project to those in attendance and displayed conceptual plans of the proposed project site, landscaping, and architectural details. Following a brief explanation of the environmental review process, comments from the public were solicited. Other than the Planning Commissioners, City staff, the project applicant, and the environmental consultant, no person elected to speak at the first scoping meeting and three persons elected to speak at the second scoping meeting. The three speakers were Mr. Jacobson, President of the Orange Empire Rail Museum, Mr. John Reichel, a neighboring property owner, and Mr. Ford of United/Intex, representing the River Glenn Specific Plan proponents. Table 2.B summarizes the comments received regarding at the August 6, 2008, scoping meeting.

[1] Alternative 5 generally consists of (i) a flow control structure levee system at the at the existing Ramona Expressway crossing of the San Jacinto River (ii) a levee system downstream of Ramona Expressway to Nuevo Road; (iii) a detention basin on either side of the Perris Valley Storm Drain; (iv) a flow control structure at the existing Interstate 215 and (iv) improvements to the existing earthen channel from Interstate 215 to Railroad Canyon.

Table 2.B: Draft EIR Scoping Meeting Comments

Agency	Comments
Tom Jacobson, President of the Orange Empire Railway Museum (OERM)	Mr. Jacobsen noted that the applicant has been very cooperative in its conversations with the museum. He noted there are concerns with drainage issues in the area. He explained that the drainage in the area runs northwest to southeast and feels that this should be addressed in the EIR. He requested that traffic conditions be addressed in the EIR and believes that the OERM is one of the foremost cultural sites in the community and all cultural facets of the community should be preserved. He mentioned that here are some off-site issues such as freight and rail service that should be discussed. He concluded by saying that he hopes for the museum to be a part of the process.
John Reichel, neighborhood property owner.	Mr. Reichel noted that he is the owner of the 80 acres on the west side of "A" Street. He believes there may be a conflict with residential uses adjacent to the General Industrial (GI) area. He briefly outlined the concerns contained in the letter as being the right-of-way of the railroad, drainage, and sewer service.
Mr. Doug Ford, Representing the owner of the Riverwoods Specific Plan project.	Mr. Ford noted that the Riverwoods Specific Plan project fronts Case Road. He added that they received the notice of this meeting this week and are supportive of the development. He added that they were very glad to receive the notice of tonight's meeting. He noted his hopes of bringing a project to the City of Perris.

2.4 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) will be prepared to comply with the requirements of State law (Public Resources Code, §21081.6). When mitigation measures are required to avoid or reduce the severity of significant impacts, State law requires the adoption of an MMRP. The monitoring program is intended to ensure compliance during implementation of the program. An MMRP will be adopted by the City Council concurrent with certification of the Final EIR for the proposed project.

2.5 POTENTIAL SIGNIFICANT IMPACTS OF THE PROPOSED PROJECT DISCUSSED IN THE EIR

This EIR focuses on the areas of concern identified in the Initial Study, NOP, and comments submitted on the NOP. The following twelve environmental topics are addressed in this EIR:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology, Drainage, and Water Quality
- Land Use and Planning
- Noise
- Public Services and Facilities
- Traffic and Circulation
- Utilities and Service Systems

2.6 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required under CEQA (§15128), an EIR is to contain a statement supporting the Lead Agency's determination that some of the possible effects of a project are not significant and, therefore, are not discussed in detail in the EIR. Through adherence to identified City requirements and mitigation measures, the City has determined that that potential impacts related to the following issue areas would be less than significant:

- **Geology and Soils.** The proposed project sites are not located within the boundaries of an earthquake fault zone for fault-rupture hazard as defined by the Alquist-Priolo Earthquake Fault Zoning Act. The nearest fault is the San Jacinto Fault Zone,[1] located approximately 1.7 miles from the project site. The maximum credible earthquake (MCE) is generally less than or equal to design levels as defined by the Uniform Building Code (UBC). The California Building Code (California Code of Regulations, Title 24) established engineering standards appropriate for the seismic zone in which development may occur. Adherence to the UBC and the California Building Code standards would ensure potential ground shaking impacts are reduced to a less than significant level and therefore no mitigation is required.
- **Mineral Resources.** The project sites are not located within an area identified by the California Department of Mines and Geology as having substantial mineral resources. Based on the Mineral Resource Zones (MRZ) established by California Department of Conservation, the project sites are not identified as MRZ-2. The California Department of Conservation is primarily interested in preservation of access to significant mineral resources in MRZ-2.

  Lands within the City of Perris and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas.[2] Therefore, no impacts to availability of valuable mineral resources would occur. No further analysis of this issue is necessary in the EIR and no mitigation is required.
- **Population and Housing.** The project sites do not include a residential component. The proposed project sites are located within an area that is currently home to industrial uses and planned for industrial uses in accordance with the General Plan. Streets, water and sewer utilities, and municipal services would be expanded to serve the proposed project. The street, water, and sewer infrastructure improvements will benefit other development projects in the project area, and therefore, could potentially induce additional business and job growth. For example, growth inducement could occur when an impediment to growth, such as a lack of basic infrastructure or services, is removed by construction of infrastructure or services. However, because the project area is currently under-served in terms of street, water, and sewer infrastructure and/or service provisions, the construction of such facilities as part of the project is considered to be a less than significant impact.
- **Recreation.** The proposed project does not include a residential component and would not contribute to a direct increase in population. As there is no direct increase in population resulting from the proposed project, no new significant demand on existing park facilities would occur. Therefore, impacts associated with an increased use of existing park facilities are considered to be less than significant.
- **Solid Waste.** The volume of solid waste generated by the proposed project per day represents approximately 0.0005 percent (5.07 tons/10,000 tons) of the current permitted throughput, and 0.001 percent (5.07 tons/ 2,881 tons) of the current daily surplus capacity at El Sobrante Landfill. The volume of solid generated by the proposed project per day represents 0.002 percent (5.07 tons/1,956 tons) of the current permitted throughput and 0.001 percent (5.07 tons/4,000 tons), of the current surplus capacity at Badlands Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed project would not significantly impact current operations or the expected lifetime of the landfill serving the project area. No significant solid waste disposal impact would occur and no mitigation is required. No further discussion in the EIR is required.

  The proposed project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991), and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring compliance with existing

[1] California Geological Survey, 2002 and 2005.
[2] City of Perris General Plan 2030 Draft Environmental Impact Report, 6.10 Mineral Resources, pg. VI-22.

solid waste regulations. Impacts associated with this issue would be considered less than significant and no mitigation is necessary. No further analysis in the EIR is required.

The Initial Study prepared for the proposed project is included as Appendix A of this EIR. The Initial Study provides a detailed analysis of the above-listed issues and appropriate reasoning to support the City's determination that impacts relative to these issues would not be significant.

2.7 CUMULATIVE PROJECTS

Substantial changes are anticipated to occur as the result of population and employment as well as the development of other projects in the City and region. *CEQA Guidelines* (§15130) requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time. The *CEQA Guidelines*, state:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

The cumulative baseline for this project includes past, present, and probable future projects, which are either approved or being considered for approval, or anticipated to be submitted for consideration, including projects in the design phase or under construction. The significance of a cumulative impact may be greater than the effects resulting from the individual actions if the effects of more than one action are additive. This section evaluates the proposed project together with the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project.

Criteria for evaluating the significance of adverse effects are identified for each environmental issue in Section 4.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

2.7.1 Potential Cumulative Development

Because of the nature of individual environmental factors, the cumulative area for every issue addressed in this EIR will not be identical. For example, the cumulative area for air quality impacts (the South Coast Air Basin) is much larger than the cumulative area for public service impacts (the service area of the various service providers.) The individual cumulative areas for the issues addressed in this EIR are provided within the cumulative impacts discussion in the respective impact sections.

In determining the cumulative impacts of a proposed project with other area projects, an EIR may either consider a list of past, present, and probable future projects, or it may consider a summary of projections method.[1] Depending on the topic addressed, this EIR utilizes both methods. The following cumulative project list includes projects identified in the study area identified in the *Traffic Impact Analysis* which was prepared for the proposed project (Table 2.C). Projects included within Table 2.B would be built out over time as market conditions permit. The potential exists that several of the projects listed may not be constructed within the reasonably foreseeable future. By including all of the listed projects in the cumulative analysis for the project, this EIR would likely overstate identified cumulative impacts because many of the identified projects may never be built or may not be built at the densities identified.

Cumulative projects include commercial, industrial, single-family, and multiple-family residential uses. Cumulative projects 1-20 identified by the City and addressed in the *Traffic Impact Analysis* are all located within three miles of the project site. There are 47 individual projects aggregated into 20 traffic analysis zones (TAZs). Figure 2.1 identifies the location of approved and pending projects within the focused cumulative project area.

Table 2.C: Cumulative Project List

Map No	Project	Location	Type
Traffic Impact Analysis Projects			
1	TR 33199	West of "A" Street between W. Metz Road and W. San Jacinto Avenue	27 Single Family Detached Residential Dwelling Units
	TR 30973		36 Single Family Detached Residential Dwelling Units
	TR 31407		243 Single Family Detached Residential Dwelling Units
	TR 33193		24 Single Family Detached Residential Dwelling Units
	TR 34756		27 Single Family Detached Residential Dwelling Units
	TR 31225		57 Single Family Detached Residential Dwelling Units
	TR 33200		100 Single Family Detached Residential Dwelling Units
	TR 34456		115 Single Family Detached Residential Dwelling Units
	TR 34719		54 Single Family Detached Residential Dwelling Units
	TR 33882		54 Single Family Detached Residential Dwelling Units
2	Harvest Landing SP	NWC of N. Perris Boulevard and Nuevo Road	1,856 Residential Dwelling Units
			196,582 square feet of Business Park and Commercial Retail uses
			16.7 acre Sports Park
	DPR 08-05-0007		68,499 square feet of Commercial Retail
3	TR 34287	Traffic Analysis Zone (TAZ) 3 bounded by Nuevo Road to the north, Dale Street to the South, N. Perris Boulevard to the west, and	52 Condominiums/Townhomes
	TR 31651		60 Single Family Detached Residential Dwelling Units

[1] State *CEQA Guidelines*, Section 15130(b)(1).

Table 2.C: Cumulative Project List

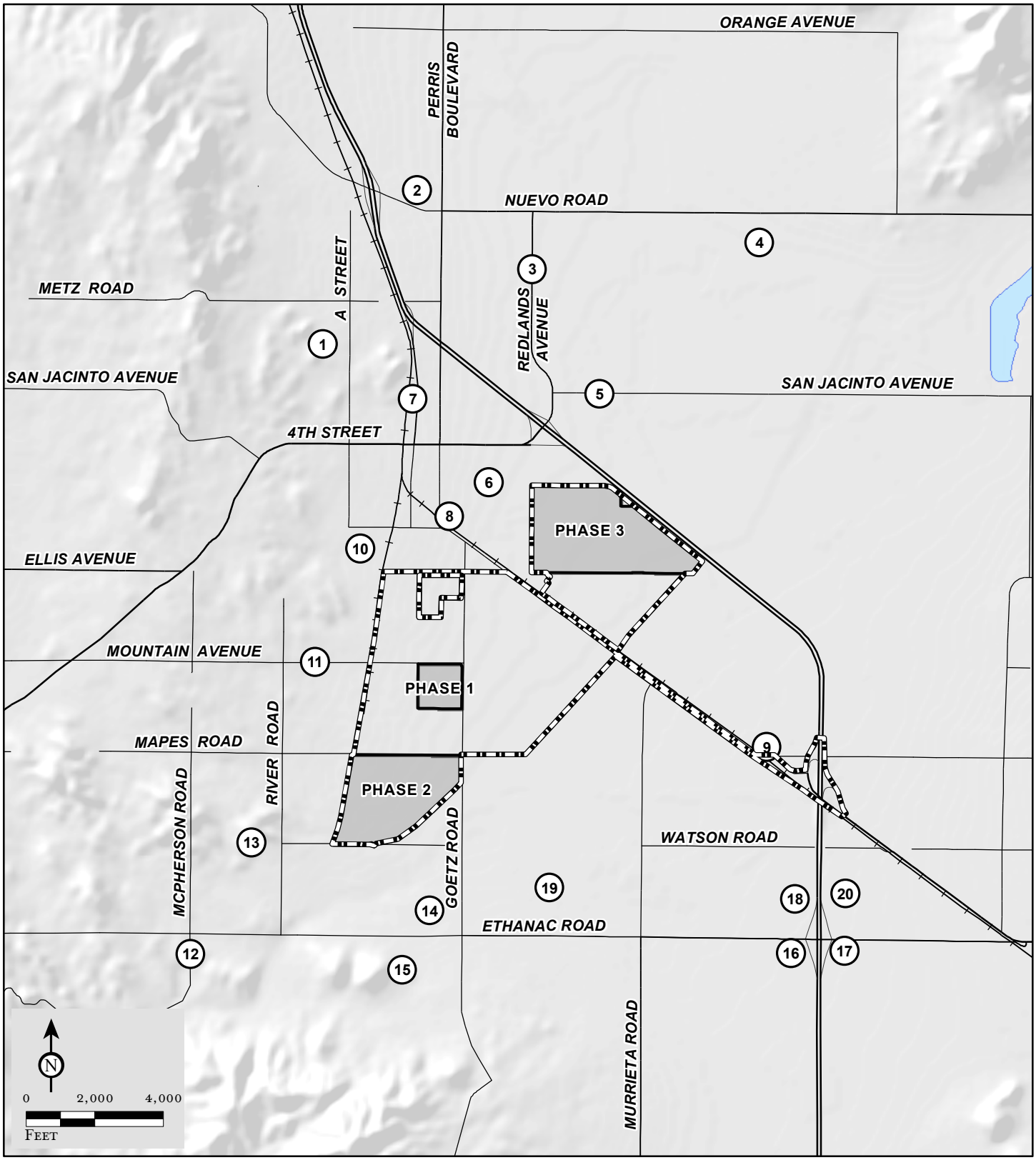
Map No	Project	Location	Type
	TR 34429	Murrieta Road to the east.	53 Single Family Detached Residential Dwelling Units
	DPR 06-0378		429 Attached Senior Adult Housing Units
	ZC 07-08-0024		294 Condominiums/Townhomes
4	Park West SP	SWC of Dunlap Drive and East Nuevo Road	521 Single Family Detached Residential Dwelling Units
			750 student Elementary School
			5 acre Neighborhood Park
	TR34267		60 Single Family Detached Residential Dwelling Units
5	The Venue	NWC and SWC of Murrieta Road and E. San Jacinto Avenue	669,986 square feet of Commercial Retail
	TR 34078		72 Single Family Detached Residential Dwelling Units
	Retail on San Jacinto		267,800 square feet of Commercial Retail
6	TR 32779	SWC, NEC, and SEC of "G" Street and 7th Street	38 Condominiums/Townhomes
	DPR 06-0323		18,685 square feet of General Light Industrial Uses
	DPR 07-09-0003		58,487 square feet of General Light Industrial Uses
7	DPR 07-0045	SWC of "D" Street and San Jacinto Avenue	84 Attached Senior Adult Housing Units
			8,518 square feet of Commercial Retail
8	TR 33549	SEC of S. Perris Boulevard and 9th Street	127 Single Family Detached Residential Dwelling Units
9	S. Perris Metrolink Station	NEC of Mapes Road/Bonnie Drive and Case Road	680 parking space Light Rail Transit Station
10	TR 32032	West of "B" Street between 11th Street and W. Ellis Avenue	118 Single Family Detached Residential Dwelling Units
	TR 32769		23 Single Family Detached Residential Dwelling Units
	TR 33274		28 Single Family Detached Residential Dwelling Units
11	TR 32525	West of "A" Street on either side of Mountain Avenue	174 Single Family Detached Residential Dwelling Units
	TR 32549		39 Single Family Detached Residential Dwelling Units
	TR 33050		19 Single Family Detached Residential Dwelling Units
12	TR 33973	South of Ethanac Road and on either side of McPherson Road	388 Single Family Detached Residential Dwelling Units
	TR 33900		198 Single Family Detached Residential Dwelling Units

Table 2.C: Cumulative Project List

Map No	Project	Location	Type
	TR 31304		125 Single Family Detached Residential Dwelling Units
13	TR 33042	NWC and SWC of River Road and Watson Road	51 Single Family Detached Residential Dwelling Units
	Riverwoods SP		663 Single Family Detached Residential Dwelling Units
			600 student Elementary School
			2,500 square foot Community Center
			12 acre Park
14	TR 31564	NWC of Goetz Road and Ethanac Road	69 Single Family Detached Residential Dwelling Units
	TR 31926		358 Single Family Detached Residential Dwelling Units
15	TR 30662	SWC of Goetz Road and Ethanac Road	45 Single Family Detached Residential Dwelling Units
			950 student Elementary School
			18 hole Golf Course
16	PDO 07-12-0008	SEC of Barnett Road and Ethanac Road	400 Condominiums/Townhomes
			60,000 square feet of Commercial Retail
17	DPR 06-0337	SWC of Encanto Drive and Ethanac Road	507,500 square feet of Commercial Retail
18	DPR 04-0621 (Perris Crossing)		252,625 square feet of Commercial Retail
			24,200 square feet of Office
19	Green Valley SP	NEC of Goetz Road and Ethanac Road	976 Single Family Detached Residential Dwelling Units
			1,472 Condominiums/Townhomes
			926 Apartment Units
			131,769 square foot Community Center
			303,831 square feet of Commercial Retail
20	Classic Pacific Business Park	West of Sherman Road between Matthews Road and Ethanac Road	387,993 square feet of Business Park (Mixed Use)

Notes: NWC = northwest corner; SWC = southwest corner; NEC = northeast corner; SEC = southeast corner
Sources: South Perris Industrial Distribution Center Traffic Impact Analysis (revised), Urban Crossroads, Inc., October 31, 2008.

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FIGURE 2.1

PROJECT AREA

PROJECT SITES

CUMULATIVE PROJECTS

South Perris Industrial
Environmental Impact Report

Cumulative Projects

SOURCE: USGS DEM; Thomas Bros, 2007

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3.0 PROJECT DESCRIPTION

The project description is provided in this section of the EIR in conformance with *CEQA Guidelines* §15124. It discusses the geographic setting, project location, project setting, City of Perris General Plan and zoning designations, project characteristics, discretionary actions, and project objectives. The project description is used as the basis for analysis in Section 4.0 of the EIR.

3.1 GEOGRAPHIC SETTING

The project applicant proposes to develop three separate sites with industrial uses, a potential rail spur, and associated street, water, recycled water, brine line and sewer infrastructure (see Section 3.5, Project Characteristics). As shown in previously referenced Figure 1.1, the Phase 1 site is located within the central-east portion of Section 6, Township 5 South, and Range 3 West of the U.S. Geological 7.5-minute survey Perris, California quadrangle in the City of Perris in Riverside County, California. The Phase 2 site is located in the northwest portion of Section 7, Township 5 South, and Range 3 West. The Phase 3 site is located in the southeast portion of Section 32 and southwest portion Section 33, Township 4 South, and Range 3 West. The proposed sites are located within the Perris Block area of the Peninsular Ranges geomorphic province of southern California. The Perris Block is bounded on the northeast by the San Jacinto Fault, on the north by the Cucamonga Fault and the San Gabriel Mountains, and on the southwest by the Elsinore Fault and the Santa Ana Mountains. The proposed project sites are located in the southern portion of the City of Perris, southwest of Interstate 215 (I-215). The City of Moreno Valley borders Perris to the north. Unincorporated areas of Riverside County border the City of Perris to the south, east, and west.

3.2 PROJECT LOCATION

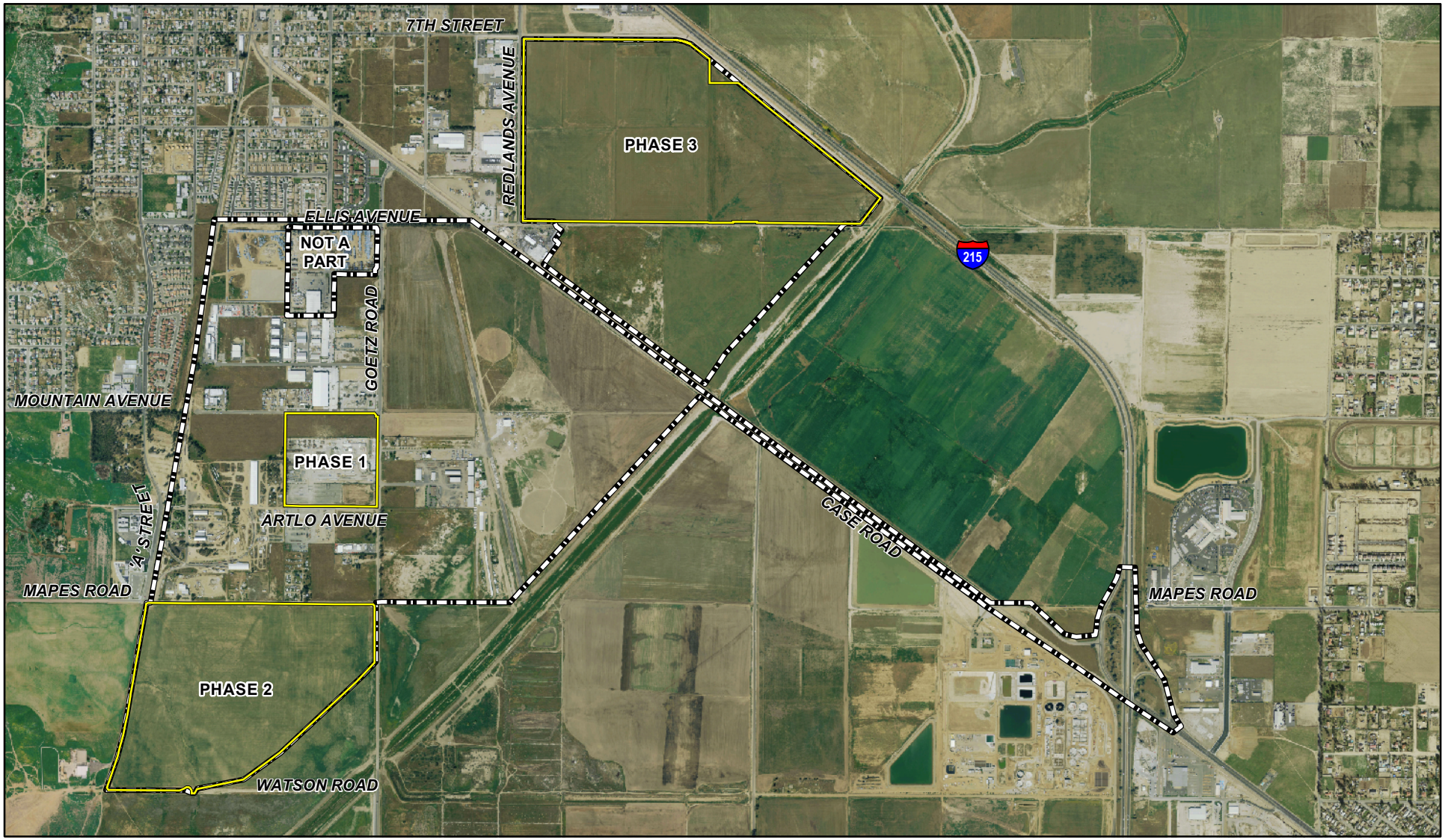
The proposed project sites are located in the south-central portion of the City of Perris, Riverside County. The three development sites, rail spur, and related infrastructure will be developed separately as part of three phases. The three sites are generally located southwest of I-215 and south of Fourth Street. Figure 1.1 shows the regional and project vicinity.

The project area is shown graphically in Figures 1.1 and 3.1. Although the project area is defined as the area incorporating the three sites and the infrastructure improvements, it should be noted that the direct physical impacts from the project are limited to the land that will house the three development sites and the land that will be improved with the specific infrastructure facilities proposed as part of the project within the project area. More specifically, as shown in Figure 3.1, the Phase 1 site is located west of Goetz Road between Mountain Avenue and Artlo Avenue. The Phase 2 site is located south of Mapes Road between “A” Street and Goetz Road (Figure 3.1). The Phase 3 site is located adjacent to the Perris Valley Storm Drain Channel and San Jacinto River at the northeast corner of Redlands Avenue and Ellis Avenue (Figure 3.1). The project area, defined for the purposes of this EIR as the three development sites plus the area incorporating the proposed infrastructure improvements, encompasses an area bounded by Ellis Avenue and 7th Street to the north, Watson Street and Mapes Road to the south, I-215 and the San Jacinto River to the east, and A Street and Redlands Avenue to the west.

3.3 PROJECT SETTING

The project area is characterized by undeveloped or underdeveloped properties as can be seen in Figure 3.1. The developed properties contain industrial and related storage operations while the undeveloped properties are primarily vacant/fallow. I-215 bounds the project area on the northeast

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FIGURE 3.1

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PROJECT SITES

PROJECT AREA

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SOURCE:AirPhotoUSA, 2008; Thomas Bros., 2007.

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South Perris Industrial
Environmental Impact Report

Aerial View of Project Area

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and runs in a northwest to southeast direction through the City of Perris. The nearest private airport is the Perris Valley Airport, located at 2091 Goetz Road and is approximately 0.25 mile east, 0.38 mile east, and 0.25 mile southwest from the Phase 1, Phase 2, and Phase 3 sites, respectively. The Phase 1, Phase 2, and Phase 3 project sites are located approximately 8 miles south, 7 miles south, and 6.5 miles southeast of March Air Field, respectively. The Orange Empire Rail Museum is located approximately 750 feet north of the Phase 2 site on the east frontage of "A" Street. To the south and east of the project area and adjacent to the Phase 2 site is the San Jacinto River, which runs in a northeast to southwest direction through the City of Perris. The Phase 1 site is currently occupied by a concrete bridge fabricating operation that will be removed as part of the project, while the Phase 2 and 3 sites are currently vacant/fallow and have not been used for agricultural production within the past three to five years. The major roads that provide access to the three phases of the project are Goetz Road, Ellis Avenue and Case Road, with the nearest I-215 interchanges at Ethanac Road, State Route 74-Case Road, and 4th Street-Redlands Avenue.

3.4 CITY OF PERRIS GENERAL PLAN AND ZONING DESIGNATIONS

A review of the City of Perris General Plan reveals the Phase 1 site is designated General Industrial and is surrounded by General Industrial land use designations to the north, south and west with Light Industrial land use designations to the east. Existing industrial operations currently border the north, northeast, and southwest portions of the site including the Perris Valley Airport across Goetz Road. Table 3.A provides a summary of existing on-site and adjacent land use designations for the Phase 1 site. Figure 3.2 shows existing on-site and adjacent General Plan Land use designations and Zoning for the Phase 1 site.

Table 3.A: Phase 1 On-Site and Adjacent Land Use Designations

Location	Current Land Uses	General Plan Land Uses	Zoning Designations
On-site	Pre-cast concrete bridge manufacturing	General Industrial	General Industrial
North	Light industry	General Industrial	General Industrial
South	Light Industry; Undeveloped	General Industrial	General Industrial
East	Light Industry; Perris Valley Airport; Undeveloped	Light Industrial	Light Industrial
West	Light Industry; Undeveloped	General Industrial	General Industrial

Sources: City of Perris General Plan Land Use Map, adopted April 26, 2005.

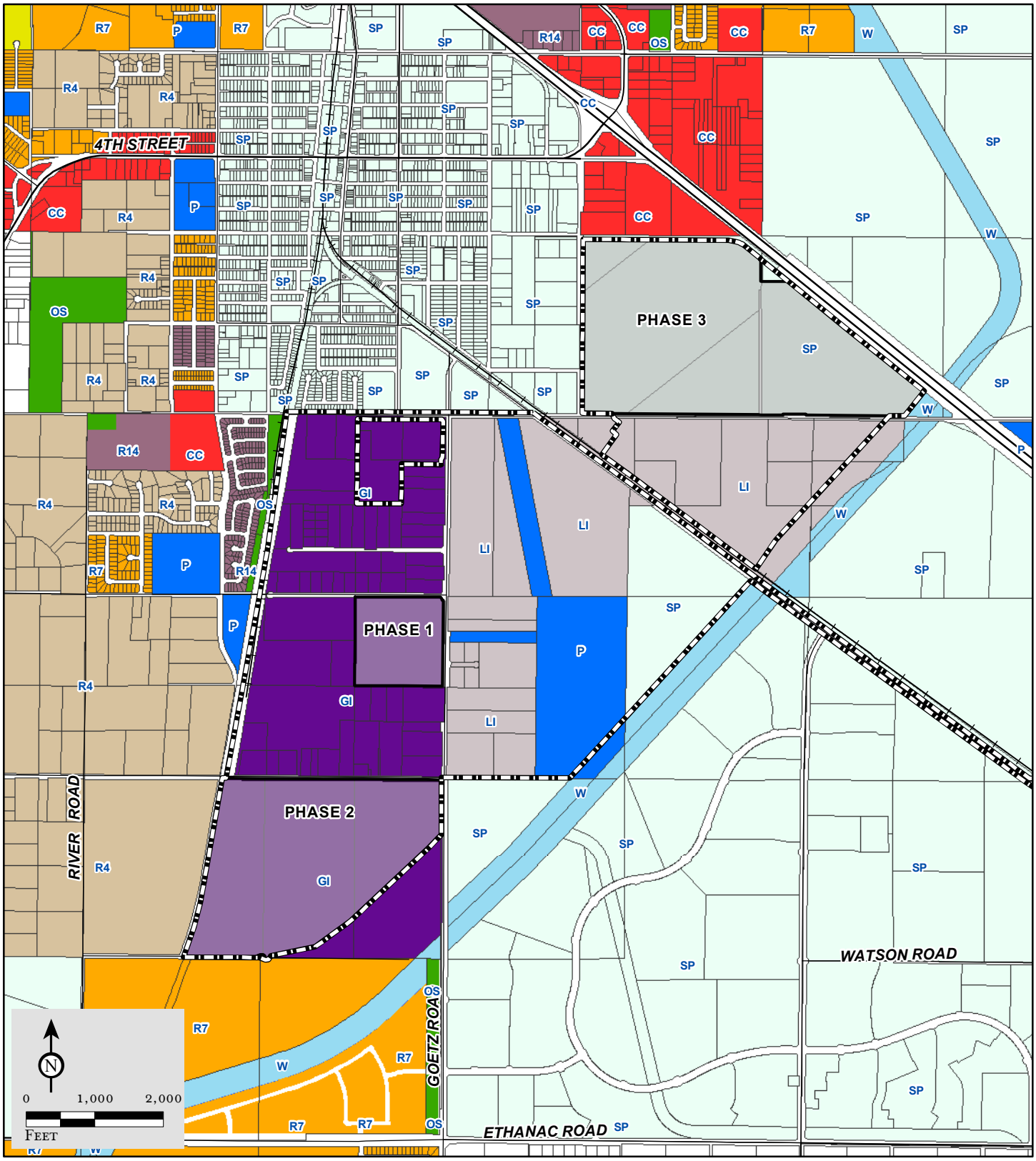
The Phase 2 site is designated General Industrial in the General Plan and is bordered by General Industrial designated land to the north, residential R-6,000 to the south, Specific Plan to the east (Green Valley Specific Plan), and residential R-10,000 to the west. Existing light industrial operations are currently located to the north and west of the site, while most of the area to the south, east, and west is undeveloped. Table 3.B provides a summary of existing on-site and adjacent land use designations for the Phase 2 site. Figure 3.2 also shows existing on-site and adjacent General Plan Land use designations and Zoning for the Phase 2 site.

Table 3.B: Phase 2 On-Site and Adjacent Land Use Designations

Location	Current Land Uses	General Plan Land Uses	Zoning Designations
On-site	(Vacant/Fallow)	General Industrial	General Industrial
North	Light industry	General Industrial	General Industrial
South	Undeveloped	Residential (R-6,000)	Residential (R-6,000)
East	Undeveloped	Specific Plan	Industrial
West	Light Industry; Undeveloped	Residential (R-10,000)	Residential (R-10,000)

Sources: City of Perris General Plan Land Use Map, adopted April 26, 2005.

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FIGURE 3.2

PROJECT AREA
PROJECT SITES

PERRIS ZONING

COMMERCIAL COMMUNITY
GENERAL INDUSTRIAL
LIGHT INDUSTRIAL
OPEN SPACE
PUBLIC
R14 RESIDENTIAL
R4 RESIDENTIAL
R7 RESIDENTIAL
RURAL RESIDENTIAL/AGRICULTURAL
SPECIFIC PLAN
WATER

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On-Site and Adjacent General Plan / Zoning

SOURCE: USGS DEM; Thomas Bros, 2007

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The Phase 3 site is designated Specific Plan and is surrounded by Community Commercial to the north, Light Industrial to the south, Specific Plan to the east, and Light Industrial and Public/Semi-Public Facilities/Utilities to the west. The Phase 3 site and the area located to the east across I-215 are included in the New Perris Specific Plan. Existing light industrial operations are currently located to the west and southwest of the Phase 3 site while most of the area to the south and east is undeveloped. Table 3.C provides a summary of existing on-site and adjacent land use designations for the Phase 3 site. Figure 3.2 also shows existing on-site and adjacent General Plan Land use designations and Zoning for the Phase 3 site.

Table 3.C: Phase 3 On-Site and Adjacent Land Use Designations

Location	Current Land Uses	General Plan Land Uses	Zoning Designations
On-site	(Vacant/Fallow)	Specific Plan	Industrial; Commercial
North	Undeveloped	Community Commercial	Community Commercial
South	Light Industry; Undeveloped	Light Industrial	Light Industrial
East	Undeveloped	Specific Plan	Golf Course; Office/Commercial; Hotel; Commercial
West	Light Industry; School	Light Industrial; Public/Semi-Public Facilities/Utilities	Light Industrial; Public/Semi-Public Facilities/Utilities

Sources: City of Perris General Plan Land Use Map, adopted April 26, 2005.

3.5 PROJECT OBJECTIVES

The purpose of the proposed project is to provide new facilities that specialize in warehouse distribution services. Upon development, the proposed project will achieve the following:

- Create employment-generating opportunities for the citizens of Perris and surrounding communities;
- Encourage industrial development as attractive and productive uses while minimizing conflicts with the surrounding existing uses;
- Encourage warehouse distribution services that take advantage of the area's close proximity to various freeways and transportation corridors;
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner;
- Encourage new development consistent with the capacity and municipal service capabilities;
- Provide a high density, high-quality large-scale industrial development to provide jobs for residents at a variety of income levels;
- Facilitate the efficient and cost-effective movement of goods in and through the City, which, in turn, allows the City to compete economically on a domestic and international scale;
- Provide oversized street and highway improvements that facilitate the movement of goods and vehicles within and through the City;
- Provide industrial warehouse facilities that meet the substantial and unmet demands of businesses located in the City and County;
- Cluster industrial warehouse uses near efficient access points to the state highway system to reduce traffic congestion on surface streets and to reduce concomitant air pollutant emissions from vehicle sources;

- Implement the City's General Plan Industrial Land Use designations that are largely applicable to the sites;
- Accommodate new development that channels land uses in a phased, orderly manner and is coordinated with the provision of necessary infrastructure and public improvements;
- Provide new development that will assist the City in obtaining fiscal balance in the years and decades ahead; and
- Address community circulation, both vehicular and pedestrian, utilizing available capacity within the existing circulation system, and provide fair share improvements to various future-year deficient intersections or road segments.

3.6 PROJECT CHARACTERISTICS

As discussed and shown previously in Figures 1.1 and 3.1, the proposed project includes three noncontiguous development sites that will be constructed separately in three phases. Infrastructure improvements constructed for each phase will be built on a schedule to accommodate the project's street, water, recycled water, and sewer needs. The infrastructure improvements will also provide additional capacity over and above that needed to accommodate project-specific street, water, recycled water, and sewer needs, thus providing an infrastructure benefit within the project, or benefit, area. Figures 1.1 and 3.1 show the project area incorporating the three sites and street, water, recycled water, and sewer improvements proposed as part of the project.

The three development sites are being considered by the City, and are identified by City of Perris project review numbers DPR 07-0130, DPR 08-04-0006 & DPR 08-01-0007 for Phase 1, 2, and 3 respectively. In total, the project applicant proposes 7,399,291 square feet of industrial warehouse space housed on approximately 454.7 acres. The Phase 1 site will include approximately 783,700 square feet of space on approximately 38 acres, the Phase 2 site will include approximately 3,448,734 square feet of space on approximately 201 acres, and the Phase 3 site will include approximately 3,166,857 square feet of space on approximately 215.7 acres. The structures are typically rectangular with roll up doors on the long sides of the building to allow access for the loading and unloading of products from diesel truck/trailers. Building interiors are typically large and open to accommodate the temporary storage of the products to be distributed. Each building will include business office space for the management offices of each warehouse. Parking at each location will be provided for trucks and trailers as well as standard passenger vehicles in accordance with City standards for light industrial uses.

The project will function as a trucking distribution hub for several types of items, with the Phase 2 site potentially developed to accommodate rail service. Further details of the project's rail access are included in the discussion of Phase 2 found later in this section. Goods imported from the ports of California as well as other locations will be delivered via truck, and/or rail in the case of the Phase 2 site, to the proposed distribution centers and distributed via truck or rail to both in and out of state locations, thus benefiting both local and interstate commerce.

The three development phases are named and described as follows:

3.6.1 Phase 1: Airport Distribution Center

The Airport Distribution Center includes development of approximately 783,700 square feet of industrial warehouse space in one building on a 38-acre site located west of Goetz Road between Mountain Avenue and Artlo Avenue. Parking will be provided for passenger vehicles as well as large trailers. Truck trailer parking, loading and unloading areas for the site are located on the north and south of the building and include 60 dock doors on each side of the building. A total of 171 trailer

parking stalls will be provided. Parking for 385 passenger vehicles will be located along the east and west frontage of the site. Landscaped areas intended for aesthetics and water quality features will be located on the southern side of the site along the Artlo Avenue frontage. Figure 3.3A shows the conceptual site plan for the Airport Distribution Center site (Phase 1).

The Airport Distribution Center site is designated General Industrial in the City of Perris General Plan and the zoning is also General Industrial. Consequently, entitlements for Phase 1 will include the City's approval of a Development Plan. In addition, City approval of a Master Plan of Infrastructure will be required for all three Phases. It is anticipated that construction of Phase 1 will start during the second quarter of 2011, with construction completed during the first quarter of 2012. The Phase 1 site will not require the export or import of fill material.

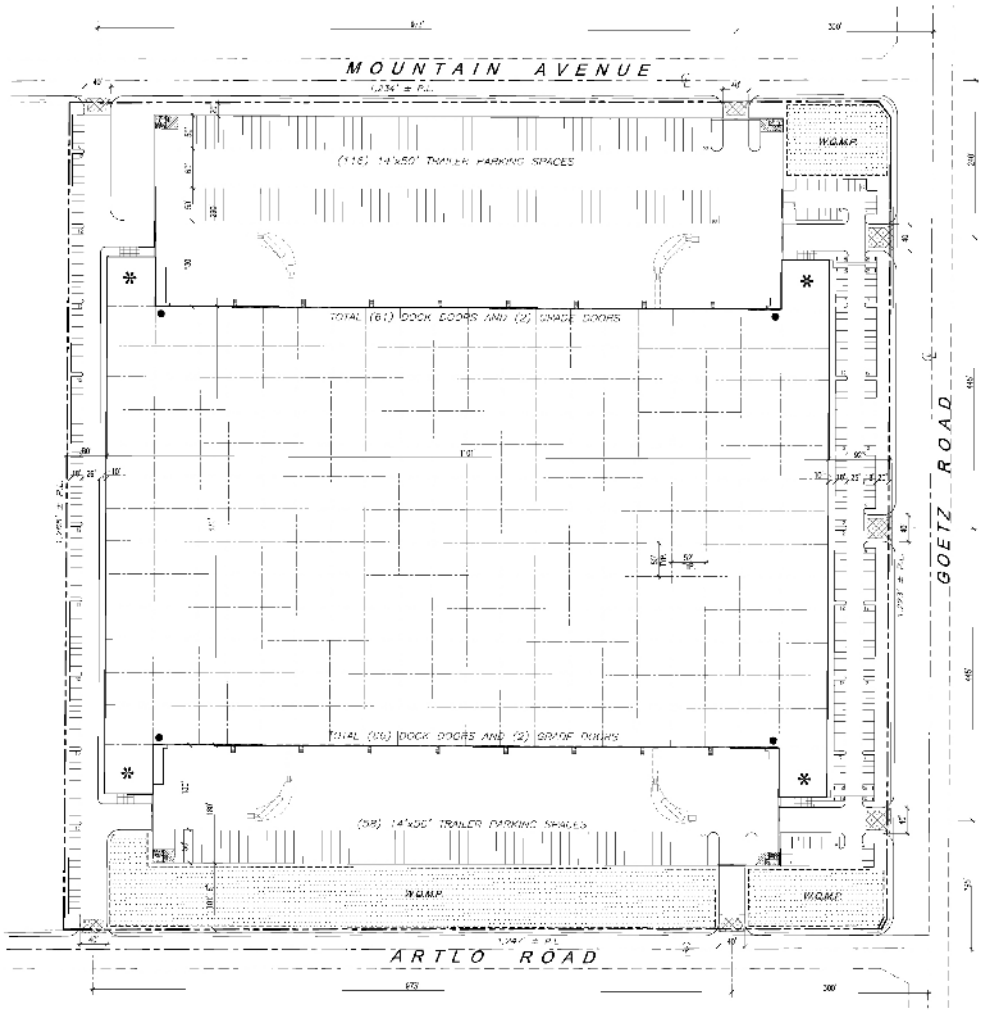
The Phase 1 site currently houses a pre-cast concrete bridge fabrication operation. Because this existing business will be removed as part of the proposed project, trip generation and air quality emissions from the existing uses are considered part of the project's baseline conditions. The analysis prepared for the project does not include the trip generation or emissions that are currently generated by these existing uses. By not including these trips and emissions, the impacts as shown in the air quality analysis and traffic impact analysis sections show a slightly greater increase in impact than what would be indicated if the existing condition was used as the baseline. Although the project's traffic and air quality impacts will be incrementally increased over the existing trip generation and air emissions associated with the existing pre-cast concrete bridge fabrication business, this "credit" has not been taken. In other words, traffic and operational air quality impacts have been assessed as if the Phase 1 Airport Center site is vacant and thus the impacts associated with Phase 1 would tend to overstate project impacts.

3.6.2 Phase 2: First Park South Perris Distribution Center

The First Park South Perris Distribution Center includes approximately 3,448,734 square feet of industrial warehouse space in four buildings on an approximately 201-acre site located south of Mapes Road between "A" Street and Goetz Road. Truck trailer parking, loading and unloading areas will be located on the east and west sides of the buildings. A total of 548 docking areas for the loading and unloading of trucks will be provided. Parking for up to 1,213 trucks and trailers will be provided on site. Parking for passenger vehicles will be located at the northern and southern portions of each of the buildings. A total of 1,904 passenger vehicle parking spaces will be provided. Figure 3.3B shows the conceptual site plan for the First Park South Perris Distribution Center (Phase 2) site.

Goods imported from the ports of California, other rail product originations, and long-haul trucks would be delivered via truck and rail to the Phase 2 site and distributed via truck or rail to both in and out of state destinations. Rail access spurs will be provided to and from this site, near the west side of Buildings 1 and 2. Ultimate design of Phase 2 may include an extension of the drill track to accommodate direct rail cargo operations to the site. A conceptual rail alignment to serve the First Park South Perris site is provided in Figure 3.3C. This conceptual alignment enters the Phase 2 site from the existing track to the north of the site and would not require the acquisition of any residential properties. The Burlington Northern Santa Fe (BNSF) Railway provides rail cargo service to the project vicinity, with rail service for the San Jacinto area based out of March Field. The proposed project's rail cargo operator would be serviced by BNSF trains already providing three train arrival/departures per week to the area on Tuesday, Thursday, and Saturday. Based on current train scheduling to the area, rail cargo service to the site would occur between 10:00 p.m. and 4 a.m. However, rail cargo service is demand responsive and BNSF would, therefore, modify arrival/departure schedules to the site depending on the project's rail cargo demand and other rail cargo demand. Trains servicing the site would consist of up to 18 cars plus three engines and would measure up to 1,200 feet in length. The present speed limit for freight trains varies between 10 mph and 15 mph on the trackage north and south of Perris; however, the track serving the Phase 2 site has a speed limit of 10 mph. The current diesel locomotives used in switcher service on this line are

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FIGURE 3.3A

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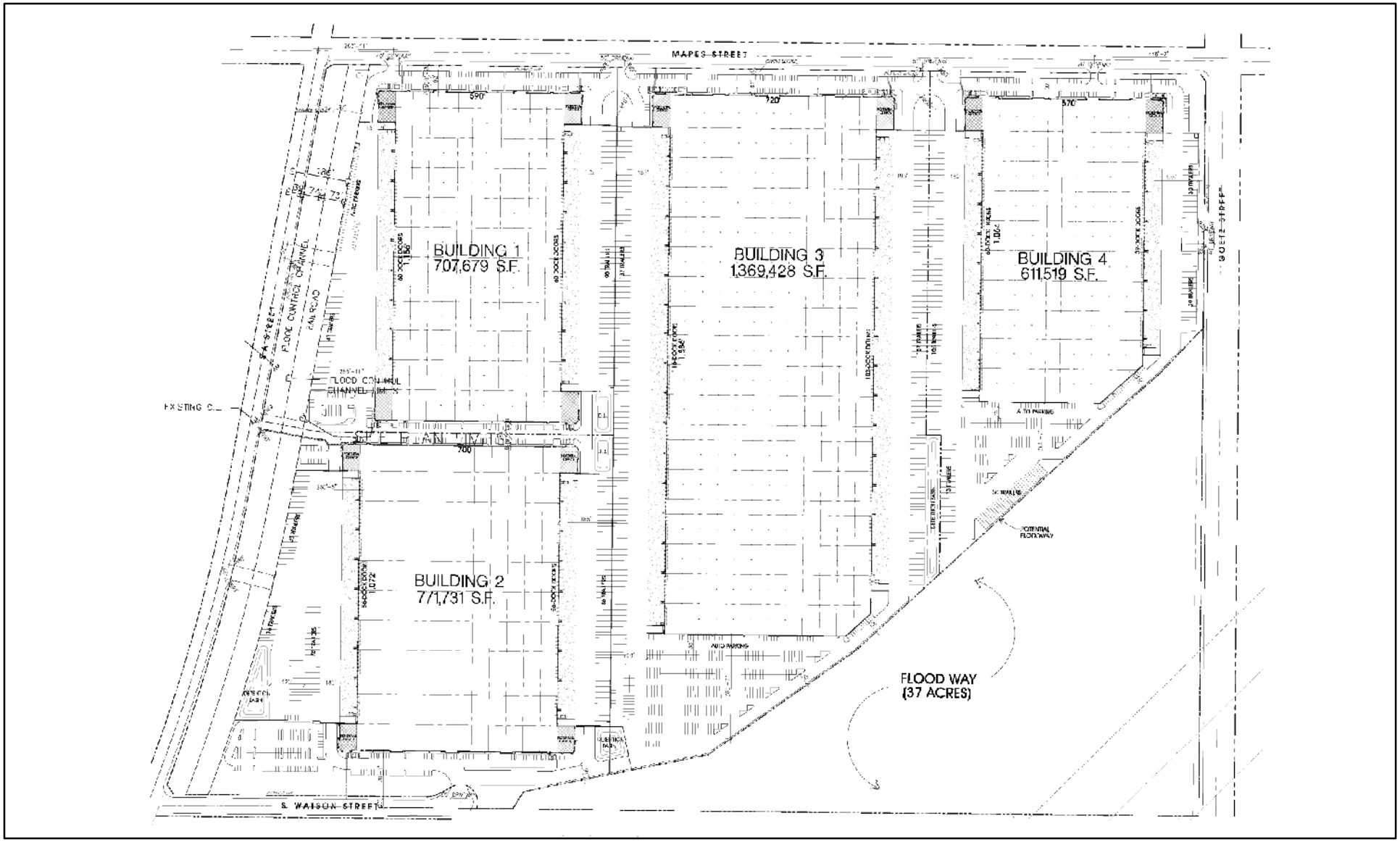
SOURCE: First Industrial Realty Trust (2007)

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South Perris Industrial
Environmental Impact Report

Phase 1 Airport Distribution Center
Conceptual Site Plan

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FIGURE 3.3B

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SOURCE: First Industrial Realty Trust (2007)

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South Perris Industrial
Environmental Impact Report

Phase 2 First Park South Perris Distribution Center
Conceptual Site Plan

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FIGURE 3.3C

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South Perris Industrial
Environmental Impact Report

SOURCE: First Industrial Realty Trust (2007)

Phase 2 Conceptual Rail Cargo Improvements

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the Electro Motive Division GP60M's and General Electric B40-8W's. The short train lengths (approximately 18 cars) and resulting trailing tonnage, along with the 10 mph track speed, will allow for minimal throttle notch settings with these types of locomotives Figure 3.3C shows the conceptual rail improvements for the First Park South Perris site. Construction plans for eventual development of the site with the rail cargo improvements will be modified with respect to the plans shown in Figure 3.3B should the rail cargo option be implemented.

The First Park South Perris Distribution Center site is designated General Industrial in the City of Perris General Plan and the zoning is also General Industrial. Consequently, entitlements for Phase 2 will include the City's approval of a Development Plan, a Tentative Parcel Map, and a street vacation to remove the Artlo Road right-of-way. As described previously, City approval of a Master Plan of Infrastructure will be required for all three phases. The extension of drill track to the site as part of the rail cargo option will require review and approval by the PUC subsequent to this EIR. As a matter of course, the Public Utilities Commission (PUC) will only approve a rail spur extension if an environmental assessment has been prepared analyzing the rail spur. The PUC typically does not conduct its own environmental analysis and thus this EIR is intended to provide environmental clearance for the potential rail spur. The PUC will be consulted as a responsible agency as part of the City's CEQA process for this project.

To raise the site out of the 100-year floodplain, the Phase 2 site will require the importation of approximately 660,000 cubic yards of fill materials. The fill will come from Romoland area, west of I-215, and south of Ethanac Road. Consequently, delivery would use the Case Road interchange on I-215. In the event delivery trucks would come from the north, it is anticipated delivery trucks would also use the I-215 interchange at Case Road in order to reduce truck traffic through downtown Perris. Short-term air quality, noise, and traffic impacts attributable to the imported fill material are addressed in this EIR.

Flows generated on site would be routed through a series of gutters, swales, and underground piping. On-site flows would ultimately be conveyed to a 2 million-gallon detention basin and sand filtration trench. Flows treated in the proposed sand filtration trench would be discharged by two sump pumps onto vacant land to the south where flows will travel until reaching Reach 3 of the San Jacinto River.

Small portions of the Phase 2 site are located within Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Criteria Cells (Cell No. 3470). The project is considered a Covered Activity under Section 7.3 of the MSHCP and would be required to adhere to the Best Management Practices found in Appendix C of the MSHCP.

It is anticipated that construction of Phase 2 will start during the second quarter of 2011, with construction completed during the second quarter of 2012.

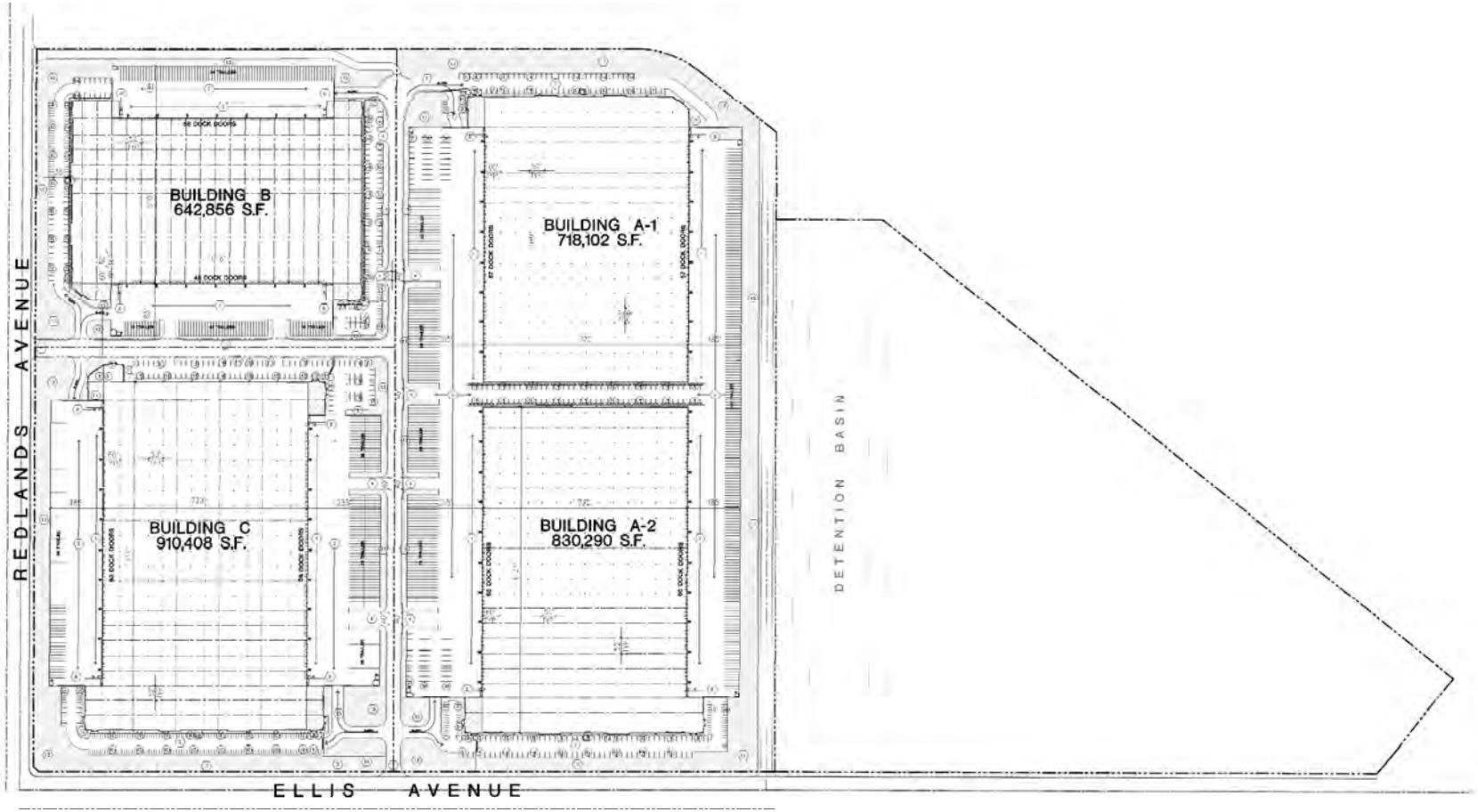
3.6.3 Phase 3: First Park South 215 Distribution Center

The First Park South 215 Distribution Center includes approximately 3,166,857 square feet of industrial warehouse space in four buildings on an approximately 215.7-acre site. The location of the Phase 3 site is adjacent to the Perris Valley Storm Drain Channel and San Jacinto River at the northeast corner of Redlands Avenue and Ellis Avenue.

A total of 492 docking areas for the loading and unloading of trucks will be provided. Parking for up to 733 trucks and trailers will be provided on site. A total of 1,424 passenger vehicle parking spaces will be provided. Figure 3.3D shows the conceptual site plan for the First Park South 215 Distribution Center (Phase 3) site.

The First Park South 215 Distribution Center site is located in the New Perris Specific Plan area and, therefore, is designated as Specific Plan in the City of Perris General Plan. The zoning is also

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FIGURE 3.3D

South Perris Industrial
Environmental Impact Report

Phase 3 First Park South 215 Distribution Center
Conceptual Site Plan

SOURCE: First Industrial Realty Trust (2007)

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Specific Plan, although the Specific Plan designates the Phase 3 site as industrial and commercial. The commercial designation covers an 8-acre area located in the northwest corner of the site. Consequently, entitlements for Phase 3 will include a General Plan Amendment and Zone Change from Specific Plan to General Industrial. Additional entitlements will include the City's approval of a Development Plan, a Tentative Parcel Map and a Street Vacation to remove the 7th Street right-of-way running through Phase 3 site. As described previously, City approval of a Master Plan of Infrastructure will be required for all three phases. The Phase 3 site will not require the export or import of fill material.

Runoff from the Phase 3 site would be routed to and treated by a proposed 1.2 million-gallon detention basin/sand filtration trench on the eastern side of the site. To ensure that water routed to the detention basin/sand filtration trench does not pool for an extended period of time, two sump pumps would be able to de-water the basin. Water discharged by sump-pump would eventually flow to Reach 3 of the San Jacinto River.

Due to the proximity of the Phase 3 site to the San Jacinto River and the Perris Valley Storm Drain as well as its location within a MSHCP Criteria Cell (Cell No. 3173), the project will be subject to the MSHCP Best Management Practices found in Appendix C of the MSHCP.

It is anticipated that construction of Phase 3, Buildings A-1 and A-2, will start during the fourth quarter of 2011, with construction completed during the fourth quarter of 2012. Construction of Buildings B and C will start during the second quarter of 2012, with construction completed during the second quarter of 2013.

3.6.4 Other Development Features

Site and building design attributes for all three Phases will incorporate many sustainability and Green Building concepts. Green Building is the practice of increasing building efficiency through site planning, water and energy management, material use, control of indoor air quality and the use of innovative design concepts. A Sustainable Community Amendment to the Conservation Element of the City's General Plan was recently approved, setting the stage for implementation of numerous changes in processes and practices that will help improve building operational efficiency, conserve water, reduce waste, and lessen the heat island effect of development within the City.

In recognition of the trend towards Green Building, the project will comply with Leadership in Energy and Environmental Design (LEED) "Silver" certification standards. LEED is a voluntary, consensus-based standard to support and certify successful green building design, construction and operations. LEED programs evaluate the complete life cycle of the project and associated buildings through design, construction and operations. Projects seeking LEED compliance are given points for compliance with specific concepts promoting green building. The points rating for a project increases as the number of policies that the project complies with increases. A point scale is applied and projects are rated on this scale. The scale is broken down into four levels, LEED Certified, Silver, Gold and Platinum, with Platinum being the highest attainable certification available for a given project. The project will incorporate Green Building concepts and is expected to comply with LEED "Silver" certification standards.

3.6.5 Roadway Infrastructure Features

As indicated previously, the project will include roadway infrastructure improvements that provide a circulation benefit to other development within the project area as well as to accommodate project circulation needs. This concept originated from direction provided by the City to reduce the quantity of project trucks using Ethanac Road and 4th Street and their interchanges with I-215. As a result of discussions between the project applicant and City staff, the proposed project incorporates roadway

improvements to eliminate project truck traffic on Ethanac Road and 4th Street. The general locations of the roadway infrastructure improvements are shown in Figure 3.4. In addition to the traffic improvements required to serve the project and vicinity, utilities will be undergrounded as a part of the traffic improvements. Traffic improvements are discussed in detail in Section 4.11.

3.6.6 Water Infrastructure Features

As indicated previously, water infrastructure improvements will be constructed as part of the project to accommodate each phase of development and provide a benefit to the surrounding properties in the project area. The contemplated water infrastructure improvements are listed and described as follows. Figure 3.5 shows the conceptual location of the water improvements.

Based on the Water Demand Study prepared for the project, a total of approximately 9,900 linear feet of 18-inch pipeline and 2,650 linear feet of 12-inch pipeline will be required to adequately serve the project and subregional area. The following summarizes the recommended new pipelines.

- Ellis Avenue from Murrieta Road to Goetz Road: install approximately 4,560 linear feet of new 18-inch pipeline.
- Goetz Road from Ellis Avenue to Mapes Road: replace existing 12-inch pipeline with approximately 5,280 linear feet of 18-inch pipeline.
- Redlands Avenue between Ellis Avenue and 7th Street: replace existing 8-inch pipeline with approximately 2,650 linear feet of 12-inch pipeline.

Phase 1 of the project would include construction of the 18-inch pipeline along Ellis Avenue between Goetz Road and Murrieta Road and the 18-inch pipeline along Goetz Road between Ellis Avenue and Mapes Road. Phase 2 of the project would not include construction of water pipeline. Phase 3 of the project would include construction of the 12-inch pipeline along Redlands Avenue between Ellis Avenue and 7th Street.

3.6.7 Recycled Water Infrastructure Features

To reduce the project's reliance on potable water sources where feasible, recycled water will be utilized for landscaping and project operations. Recycled water pipelines currently do not exist in the project area. However, the recycled waterlines that will be constructed as a part of the project will be determined through coordination with EMWD during the Plan of Service process. Phase 1 of the project would include construction of an 8-inch pipeline (approximately 2,640 linear feet) underlying Goetz Road from Mountain Avenue heading south to Mapes Road and an 8-inch pipeline (approximately 2,640 linear feet) underlying Ellis Avenue from Murrieta Road to Redlands Avenue. Construction of additional recycled water line would not be included as part of the Phase 2 and Phase 3 developments.

3.6.8 Sewer Infrastructure Features

Overall, the proposed project would include construction of approximately 26,000 linear feet of new sewer lines and two lift stations consisting of pumps, valves and electrical equipment. The sewer improvements are shown in Figure 3.6 and the sewer line sizes and lengths are summarized as follows:

- 8-inch sewer line: approximately 8,900 feet.
- 10-inch sewer line: approximately 6,400 feet.
- 12-inch sewer line: approximately 3,250 feet.



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FIGURE 3.4

PROJECT SITES

PROJECT AREA

ROADWAYS TO BE IMPROVED

0 1,000 2,000

FEET

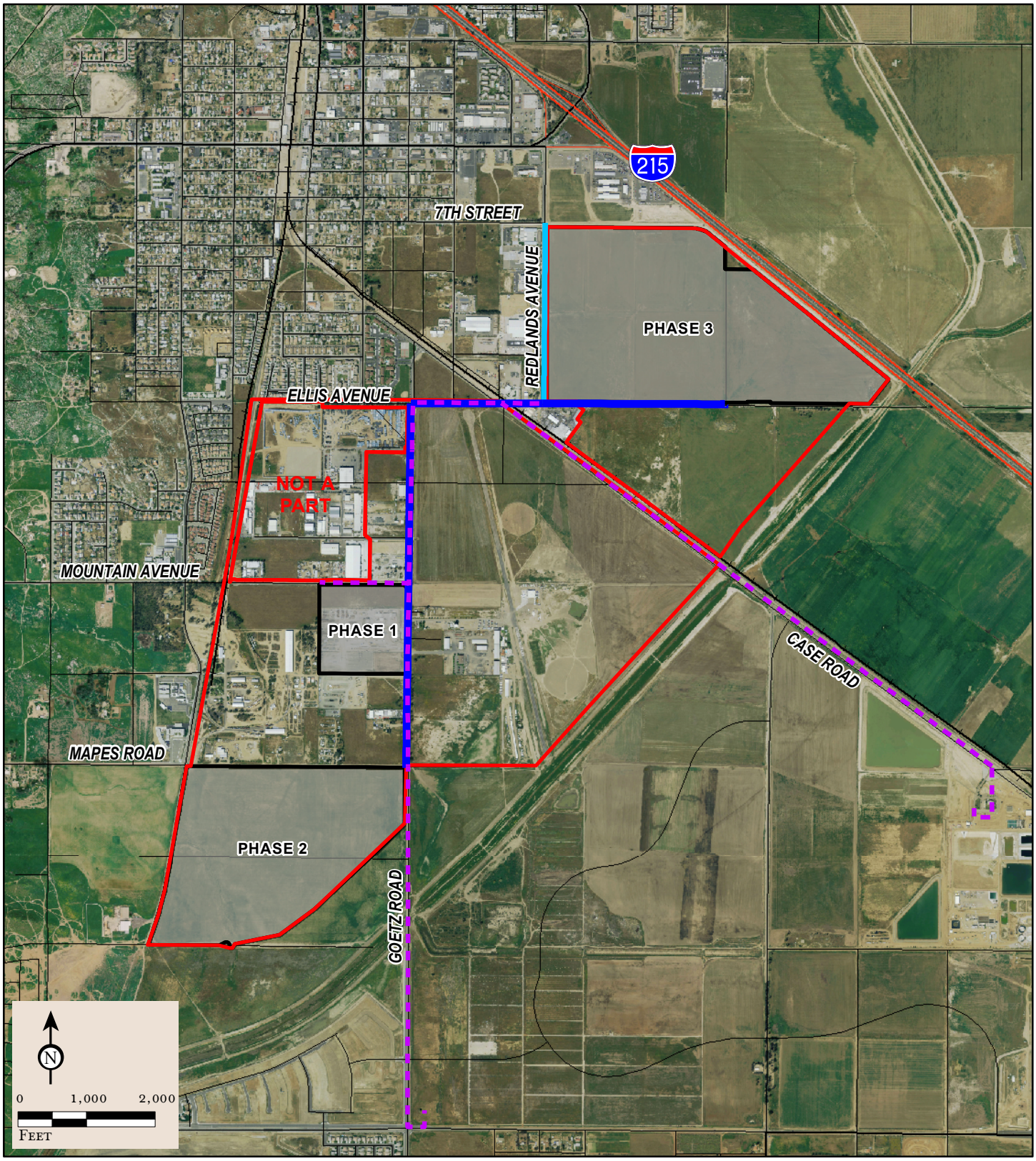
SOURCE:AirPhotoUSA, 2008; Thomas Bros., 2007.

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South Perris Industrial
Environmental Impact Report

Proposed Roadway Improvements

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FIGURE 3.5

PROJECT AREA

STUDY AREA

PROPOSED WATER LINE

12" DIAMETER

18" DIAMETER

RECYCLED WATER LINE

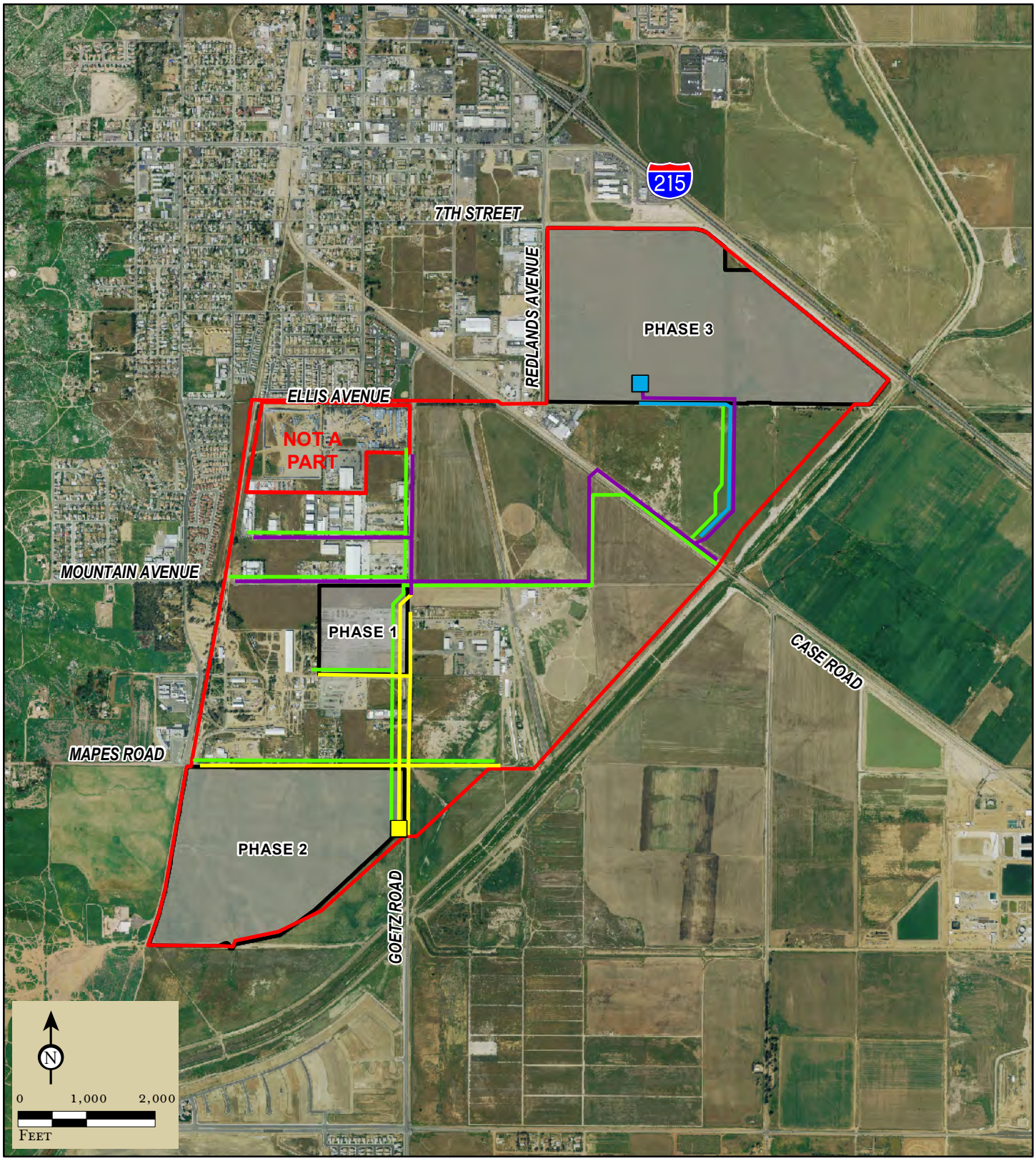
South Perris Industrial
Environmental Impact Report

Proposed Water Improvements

SOURCE: AirPhotoUSA, 2008; Thomas Bros., 2007; Albert Webb Associates, 2008.

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FIGURE 3.6

Project Area
Study Area

Proposed Sewer Lines
Phase 1
Phase 2
Phase 3
Proposed Brine Lines

Proposed Sewer Lift Stations
Lift Station #1
Lift Station #2

SOURCE: AirPhotoUSA, 2008; Thomas Bros., 2007; Albert Webb Associates, 2009.

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South Perris Industrial
Environmental Impact Report

Proposed Sewer Improvements

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- 15-inch sewer line: approximately 1,300 feet.
- 18-inch sewer line: approximately 1,650 feet.
- 21-inch sewer line: approximately 4,530 feet.

Phase 1 of the project would include construction of sanitary sewer line connections to the existing 24-inch sewer line located in Case Road. All these lines would provide a gravity flow connection.

- Mountain Avenue from A Street to 1,200 feet east: install 1,200 feet of new 8-inch sewer pipe. Mountain Avenue from 1,200 feet east of A Street to Goetz Road: Install 1,300 feet of new 10-inch sewer pipe.
- Mountain Avenue from Goetz Road to 1,800 feet west of the San Jacinto River: Install 1,650 feet of new 18-inch sewer pipe.
- Northward from Mountain Avenue, 1,800 feet west of the San Jacinto River to 900 linear feet west of Case Road: Install 2,650 linear feet of new 21-inch sewer pipe.
- From 900 linear feet west of Case Road, along Case Road to the San Jacinto River: Install 1,880 feet of new 21-inch sewer pipe.
- Goetz Road between Mountain Avenue and Malbert Road: Install 650 feet of new 12-inch sewer pipe.
- Goetz Road between Malbert Road and CR&R Waste Services driveway: Install 1,300 feet of new 10-inch sewer pipe.
- Malbert Road, entire length: Install 2,500 feet of new 10-inch sewer pipe.

Phase 2 of the project would include construction of sanitary sewer line connections to the Phase 1 sewer lines, eventually flowing to the existing 24-inch sewer line located in Case Road. The Phase 2 sewer improvements would require a new lift station to accommodate sewer flow to Case Road.

- Mapes Road from A Street to 1,900 feet east: Install 1,900 feet of new 8-inch sewer pipe.
- Mapes Road from 1,900 feet east of A Street to Goetz Road: Install 1,300 feet of new 8-inch sewer pipe.
- Goetz Road 1,000 feet south of Mapes Road: Install new Lift Station #1.
- Goetz Road from 1,000 feet south of Mapes Road to Mapes Road: Install 1,000 feet of new 15-inch sewer pipe
- Goetz Road from Mapes Road to Paseo Adelanto: Install 1,300 feet of new 10-inch sewer pipe.
- Goetz Road from Paseo Adelanto to 1,000 feet north of Paseo Adelanto: Install 1,000 feet of new 10-inch sewer pipe.
- Goetz Road from Lift Station #1 to 300 feet south of Mountain Avenue: Install 3,500 feet of new 8-inch force main.
- Goetz Road from Mountain Avenue to 300 feet south: Install 300 feet of new 15-inch sewer pipe.

Phase 3 of the project would include construction of sanitary sewer line connections to the existing 24-inch sewer line located in Case Road. The Phase 3 sewer improvements would require a new lift station to accommodate sewer flow to Case Road.

- Murrieta Road at Ellis Avenue southerly 1,600 feet: install 1,600 feet of new 12-inch sewer pipe.
- Murrieta Road 1,600 feet south of Ellis Avenue: install new Lift Station #2.

- Murrieta Road from Lift Station #2 to Case Road: install 1,000 feet of new 12-inch sewer pipe.

3.6.9 Brine Line Infrastructure Features

There are currently no brine lines serving the study area. Brine is a term that is used very loosely in the area of water treatment. When it comes to desalination, brine is the liquid residual generated during the treatment process. It contains high concentrations of sodium chloride and other dissolved salts. It is commonly referred to as concentrate or reject in nanofiltration and reverse osmosis applications, and as regenerant in ion exchange systems. Brine can also be the result of industrial processes such as food processing. This water is non-reclaimable and must be treated separately from wastewater or sanitary sewer systems. Brine can be used to produce chlorine and caustic soda (sodium hydroxide, NaOH) through electrolysis. Numerous industries such as the pulp and paper industry, textile industry, detergent industry, and bleach manufacturing industry use caustic soda as part of their processes. The proposed project would include new separate brine lines to deliver brine and suspended solids from the development sites to future EMWD brine pumping locations. The force mains will share a trench with the sanitary sewer and will not involve additional encroachment into other areas.

Phase 1 of the project would include construction of separate sewer line to deliver brine and suspended solids from the Airport Distribution Center site. The brine line will follow the alignment of the Phase 1 sanitary sewer and will consist of an 8-inch force main. This force main will share a trench with the sanitary sewer. In addition, the Phase 1 brine system would include a new 10-inch force main along Murrieta Road between Case Road and Watson Road and continue along Watson Road to a point of connection at a new EMWD pumping facility. Phase 2 brine line facilities would include an 8-inch force main along the same alignment as the Phase 2 sanitary sewer. In addition, a 100 horse power pump station and 2 million gallon basin will be constructed on the Phase 2 South Perris Distribution Center site. Phase 3 brine line facilities would include construction of a 6-inch force main along an identical alignment as Phase 3 sanitary sewer. Additionally, a 50 horse power pump station and 1.2 million gallon basin will be constructed on the Phase 3 First Park South 215 site.

3.7 REQUIRED PERMITS AND DISCRETIONARY ACTIONS

The following discretionary actions are anticipated to be taken by the City of Perris as part of the proposed project:

- Specific Plan Amendment (Case Number 08-05-002) and General Plan Amendment (Case Number 08-05-0023) to change land use from Specific Plan to General Industrial and associated amendments to the New Perris Specific Plan (for the Phase 3 site only);
- Development Agreements including a Master Plan of Infrastructure (for all 3 sites and proposed street, water, and sewer infrastructure improvements);
- Tentative Parcel Map approval (Map Number 35877 (Phase 2) and Map Number 35886 (Phase 3) site only);
- Development Plans for all 3 sites Phase 1: 07-130, Phase 2: 08-04-0006, and Phase 3: 08-01-0007;
- Street vacation to remove the Watson Road right-of-way running through the Phase 2 site; and
- Street vacation to remove 7th Street right-of-way running through the Phase 3 site (Case Number 08-05-0025).

Other non-discretionary actions anticipated to be taken by the City at the staff level as part of the proposed project include:

- Approval of a Storm Water Pollution Prevention Plan (SWPPP) to mitigate site runoff during construction and a Water Quality Management Plan (WQMP) to mitigate for post-construction runoff flows.

Approvals and permits required by other agencies include:

- A National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB) to ensure that construction site drainage velocities are equal to or less than the pre-construction conditions and downstream water quality is not worsened;
- Clean Water Act Section 401 Water Quality Certification from the Santa Ana Regional Water Quality Control Board;
- Determination of project consistency (for Phases 2 and 3 only) with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) by Riverside County;
- Approvals of the rail spur connection and rail cargo service by the Public Utilities Commission;
- Section 1601/1603 Agreement from the California Department of Fish and Game; and
- Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers.

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4.0 ENVIRONMENTAL IMPACT EVALUATION

4.1 AESTHETICS

This section describes the existing aesthetic condition of the project area and analyzes aspects of the proposed project such as light and glare generation and compatibility issues with the visual characteristics of surrounding land uses. In particular, descriptions of existing visual characteristics, both on site and in the vicinity of the project site, are presented. Potential impacts to aesthetic and visual resources resulting from the development of the proposed project are based on analyses of site photographs, reconnaissance, and project data provided in reports prepared for the project.

The analysis contained in this section is based in part on the following reference documents:

- City of Perris General Plan 2030 Draft EIR, City of Perris, October 2004;
- Municipal Code, City of Perris, codified through Ordinance 1251, passed September 30, 2008;
- Riverside County General Plan, Volume 2, County of Riverside, October 7, 2003; and
- Riverside County Ordinance 655, County of Riverside, adopted June 7, 1988.

4.1.1 Existing Setting

As illustrated in Figure 4.1.1, the project area is located in the south-central portion of the City of Perris, which is situated in the Perris Valley midway between the San Jacinto and the Santa Ana Mountains. The three project sites are generally located southwest of Interstate 215 (I-215) and south of 4th Street. The majority of the land within the project area is currently vacant. Scattered industrial uses and agricultural uses are the primary uses in the vicinity. I-215 bounds the project area on the east and runs in a northwest to southeast direction. The nearest private airport is the Perris Valley Airport, located at 2091 Goetz Road and is approximately 0.25 mile east, 0.38 mile east, and 0.25 mile southwest from the Phase 1, Phase 2, and Phase 3 sites, respectively. The Phase 1, Phase 2, and Phase 3 project sites are located approximately 8 miles south, 7 miles south, and 6.5 miles southeast of March Air Field, respectively. To the south of the project area adjacent to Phase 2 the San Jacinto River runs in a northeast to southwest direction. The Phase 1 site is currently occupied by an industrial use, while the Phase 2 and 3 sites are vacant. The major roads that provide access to the three phases of the project are Goetz Road, Ellis Avenue and Case Road, with the nearest I-215 interchanges at Ethanac Road and State Route 74-Case Road.

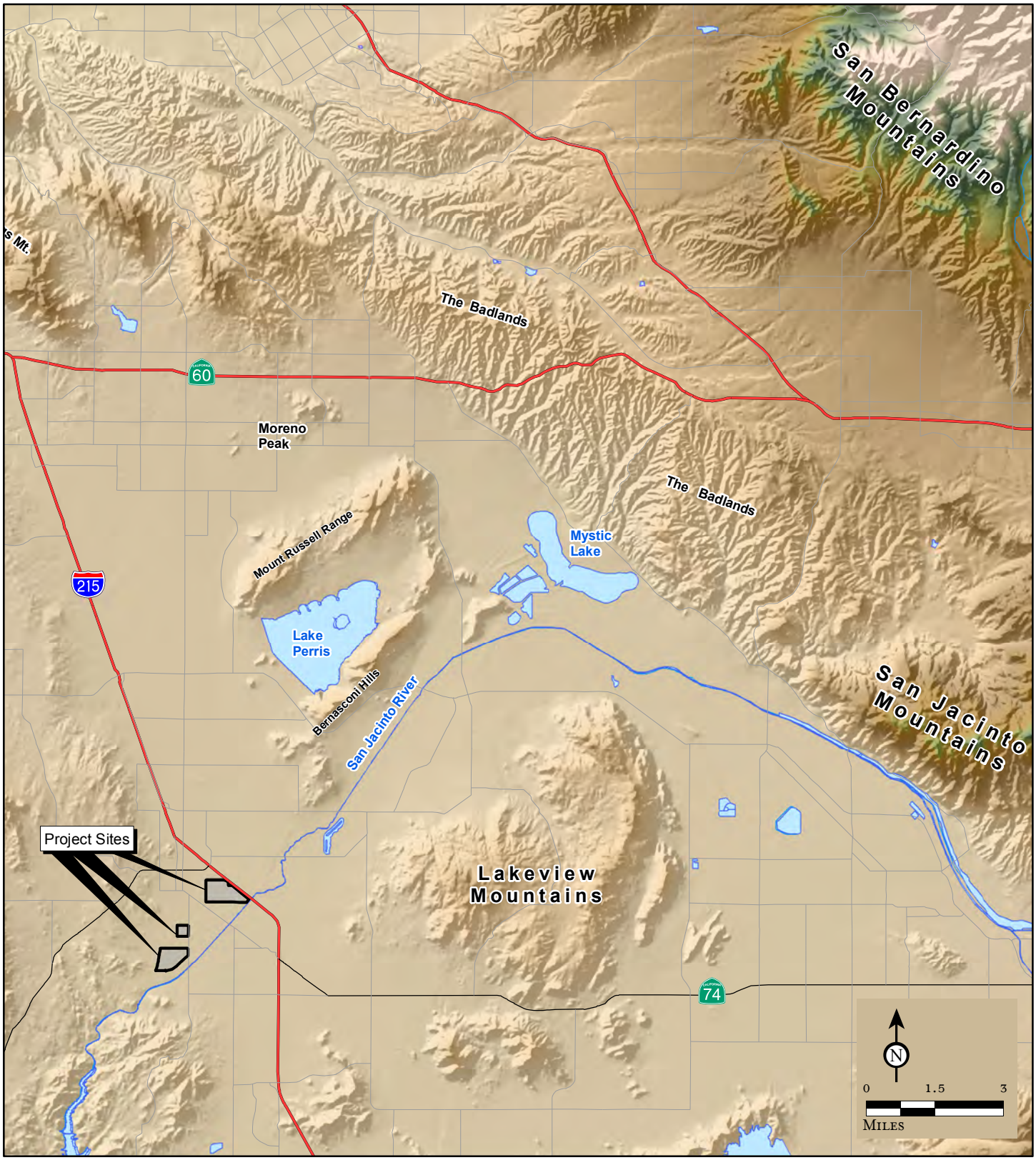
4.1.1.1 Topographic/Vegetation Features

Situated within south-central Perris, the three project sites are characterized by relatively flat topography with an approximate elevation of 1,420 feet above mean seal level (AMSL). While all three sites are relatively level, the proposed Phase 2 project site slopes gently to the east.

4.1.1.2 Existing Viewsheds

A viewshed is the visible surface area from an observer's point of view and is typically defined by what viewers can see from the project and what portions of the project viewers can see from the surrounding area. A viewshed can be divided into three distinct components: the foreground, midground, and background. A description of these terms is provided in Section 4.1.3 Methodology. Table 4.1.A provides a summary of the existing viewsheds to and from the project sites.

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FIGURE 4.1.1

South Perris Industrial
Environmental Impact Report

Natural Landforms

SOURCE: ESRI, USGS DEM.

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Table 4.1.A: Existing Viewsheds

Vantage Point	Characteristics of Views		
	Foreground	Midground	Background
North from project site Phase 1	Mountain Avenue	Industrial uses	Surrounding foothills
East from project site Phase 1	Goetz Road	Undeveloped land, Sky Dive Indoor skydiving facility, Perris Valley Airport	Surrounding foothills
South from project site Phase 1	Undeveloped land	Undeveloped land, a wall of trees	Surrounding foothills
West from project site Phase 1	Train tracks	Trees	Surrounding foothills
North toward project site Phase 1	Undeveloped land	Industrial uses	Surrounding foothills
East toward project site Phase 1	Industrial uses, Undeveloped land	Trees	Surrounding foothills
South toward project site Phase 1	Industrial uses	Industrial uses	Surrounding foothills
West toward project site Phase 1	Industrial uses, undeveloped land	Sky Dive Indoor skydiving facility	Surrounding foothills
North from project site Phase 2	Mapes Road, undeveloped land, dispersed residential uses	Industrial uses, Orange Empire Railway Museum	Distant views of the San Bernardino Mountains
East from project site Phase 2	Undeveloped land	Undeveloped land	Surrounding foothills
South from Project site Phase 2	Undeveloped land	Distant residential	Surrounding foothills
West from project site Phase 2	Train tracks	Vacant land	Surrounding foothills
North toward project site Phase 2	Undeveloped land	Residential uses	Surrounding foothills
East toward project site Phase 2	Undeveloped land	Train tracks, undeveloped land	Surrounding and distant foothills
South toward project site 2	Undeveloped land	Undeveloped land, dispersed residential uses	Industrial uses
West toward project site 2	Train tracks, undeveloped land	Undeveloped land	Surrounding foothills
North from project site Phase 3	Perris Valley Storm Drain Channel, undeveloped land	Industrial uses	Distant San Bernardino Mountains
East from project site Phase 3	Undeveloped land	Interstate 215	Surrounding foothills
South from project site Phase 3	Ellis Avenue, undeveloped land, trees	Undeveloped land	Surrounding foothills
West from project site Phase 3	Redlands Avenue, post office, Sheriff/Coroner facility, The Academy Community Day School	Undeveloped land	Surrounding foothills

Table 4.1.A: Existing Viewsheds

Vantage Point	Characteristics of Views		
	Foreground	Midground	Background
North toward project site Phase 3	Undeveloped land	Undeveloped land	Surrounding foothills
East toward project site Phase 3	Undeveloped land	Undeveloped land	Surrounding foothills
South toward project site Phase 3	Undeveloped land	Industrial uses	Surrounding foothills
West toward project site Phase 3	Undeveloped land	Interstate 215	Surrounding foothills

Source: LSA Associates, October 2008.

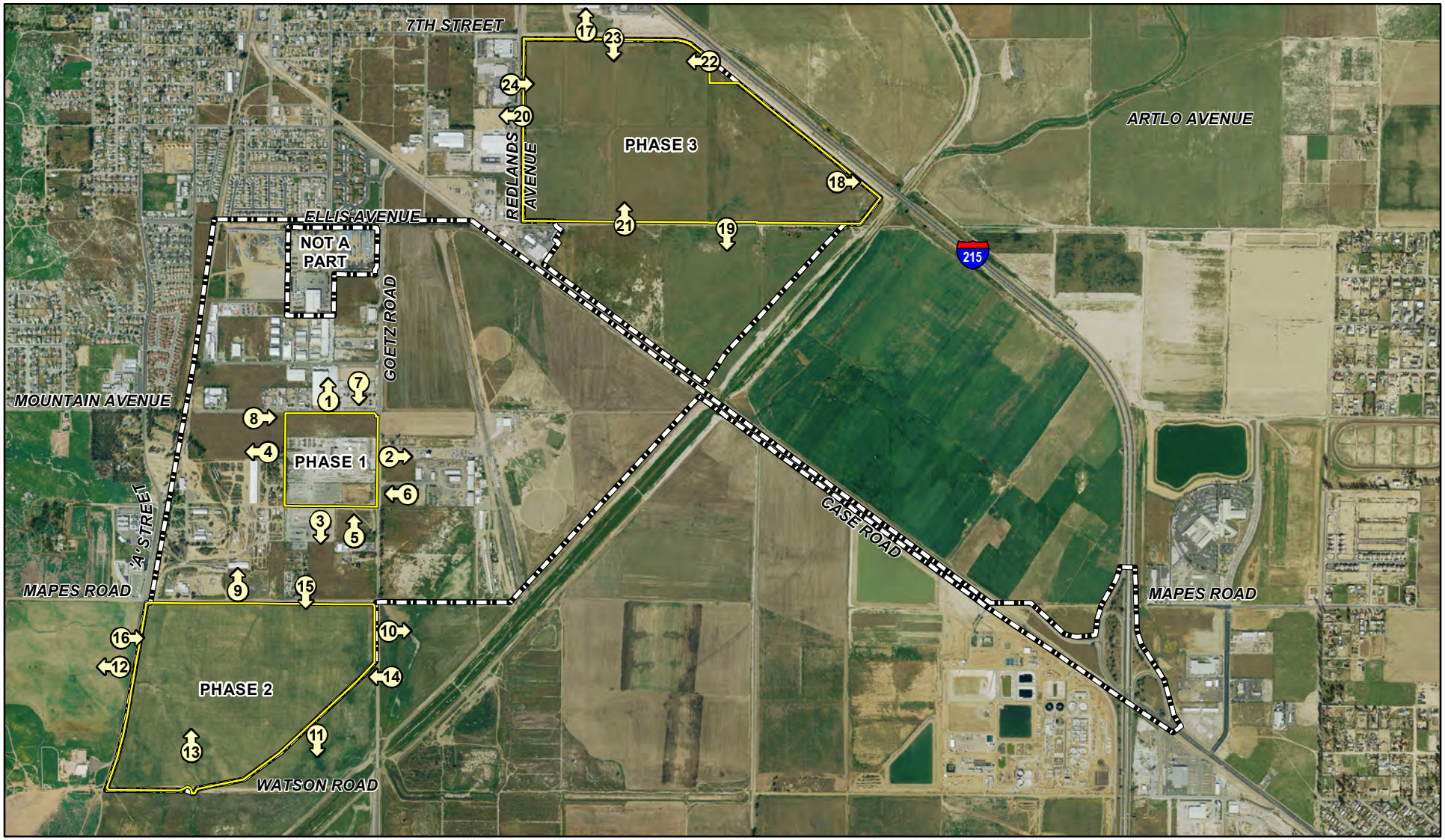
As summarized in Table 4.1.A, and as illustrated in Figures 4.1.2 through 4.1.3F, views north of the proposed project site Phase 1 consist of Mountain Avenue, industrial uses, and surrounding foothills. Views to the industrial uses are partially obstructed by an approximately six-foot-high concrete block wall. Views east of the project Phase 1 site consist of Goetz Road, undeveloped land, the existing SkyDive Indoor skydiving facility, Perris Valley Airport and surrounding foothills. Views south of the proposed Phase 1 site consist of undeveloped land. Views west of the Phase 1 project site include undeveloped land, views of trees, and views of the surrounding foothills.

Views north of the proposed project Phase 2 site consist of Mapes Road, undeveloped land, dispersed residential uses, the Orange Empire Railway Museum and distant views of the San Bernardino Mountains. Views east of the Phase 2 project site consist of Goetz Road, undeveloped land, and surrounding foothills. While views west of the proposed Phase 2 project site consist of train tracks, undeveloped land, and surrounding foothills, views south of the Phase 2 project site comprise undeveloped land, distant residential uses, and surrounding foothills.

Views north of the proposed project Phase 3 site consist of the Perris Valley Storm Drain Channel, undeveloped land, industrial land uses, and distant San Bernardino Mountains. Views east of the Phase 3 site include undeveloped land, Interstate 215, and surrounding foothills. Views west of Phase 3 comprise Redlands Avenue, the post office, the Sheriff/Coroner's facility, the Academy Community Day School, undeveloped land, and surrounding foothills. Views south consist of Ellis Avenue, undeveloped land, a recycling facility, and surrounding foothills.

4.1.1.3 Lighting and Visibility

Ambient nighttime lighting in the vicinity of the Phase 1 and 2 project sites is characteristic of areas along minor transportation arterials, and of those found around airports. Within the Phase 3 project area, ambient nighttime lighting is characteristic of areas within a major transportation corridor. Light sources within the Phase 1 area include streetlights and the headlights of vehicles traveling along Mapes Road, Mountain Avenue, and Goetz Road, and lighting produced by the existing industrial use. Within the Phase 2 area, light sources include streetlights and the headlights of vehicles traveling along Mapes Road, Watson Road, and Goetz Road. Light sources within the Phase 3 area consist of streetlights and headlights of vehicles traveling along Interstate-215. Due to the absence of on-site development within the Phase 2 and 3 sites, no lighting sources currently exist within the project limits.



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FIGURE 4.1.2

PROJECT SITES

PROJECT AREA

PHOTOGRAPH LOCATION AND DIRECTION TAKEN

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SOURCE: AirPhotoUSA, 2008; Thomas Bros., 2007.

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South Perris Industrial Environmental Impact Report

Photographic Key Map

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Photograph 1:

Background: Surrounding foothills

Midground: Industrial uses

Foreground: Mountain Avenue



Photograph 2:

Background: Surrounding foothills

Midground: Undeveloped land, Sky Dive Indoor skydiving facility, Perris Valley Airport

Foreground: Goetz Road



Photograph 3:

Background: Surrounding foothills

Midground: Undeveloped land, a wall of trees

Foreground: Undeveloped land



Photograph 4:

Background: Surrounding foothills

Midground: Trees

Foreground: Train tracks

LSA

FIGURE 4.1.3A

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 1 Site

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Photograph 5:

Background: Surrounding foothills

Midground: Industrial uses

Foreground: Undeveloped land



Photograph 6:

Background: Surrounding foothills

Midground: Trees

Foreground: Industrial uses, Undeveloped land



Photograph 7:

Background: Surrounding foothills

Midground: Industrial uses

Foreground: Industrial uses



Photograph 8:

Background: Surrounding foothills

Midground: Sky Dive Indoor skydiving facility

Foreground: Industrial uses, undeveloped land

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FIGURE 4.1.3B

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 1 Site

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Photograph 9:

Background: Distant views of the San Bernardino Mountains

Midground: Industrial uses, Orange Empire Railway Museum

Foreground: Mapes Road, undeveloped land, dispersed residential uses



Photograph 10:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Undeveloped land



Photograph 11:

Background: Surrounding foothills

Midground: Distant residential

Foreground: Undeveloped land



Photograph 12:

Background: Surrounding foothills

Midground: Vacant land

Foreground: Train tracks

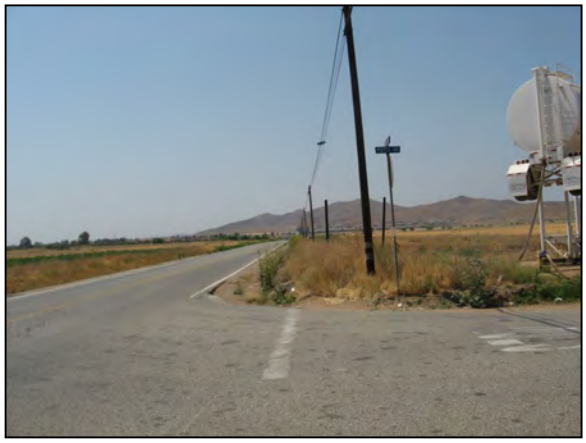
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FIGURE 4.1.3C

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 2 Site

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Photograph 13:

Background: Surrounding foothills

Midground: Residential uses

Foreground: Undeveloped land



Photograph 14:

Background: Surrounding and distant foothills

Midground: Train tracks, undeveloped land

Foreground: Undeveloped land



Photograph 15:

Background: Industrial uses

Midground: Undeveloped land, dispersed residential uses

Foreground: Undeveloped land



Photograph 16:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Train tracks, undeveloped land

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FIGURE 4.1.3D

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 2 Site

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Photograph 17:

Background: Distant San Bernardino Mountains

Midground: Industrial uses

Foreground: Perris Valley Storm Drain Channel, undeveloped land



Photograph 18:

Background: Surrounding foothills

Midground: Interstate 215

Foreground: Undeveloped land



Photograph 19:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Ellis Avenue, undeveloped land, trees



Photograph 20:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Redlands Avenue, post office, Sheriff/Coroner facility, Perris High Community Day School (The Academy)

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FIGURE 4.1.3E

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 3 Site

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Photograph 21:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Undeveloped land



Photograph 22:

Background: Surrounding foothills

Midground: Undeveloped land

Foreground: Undeveloped land

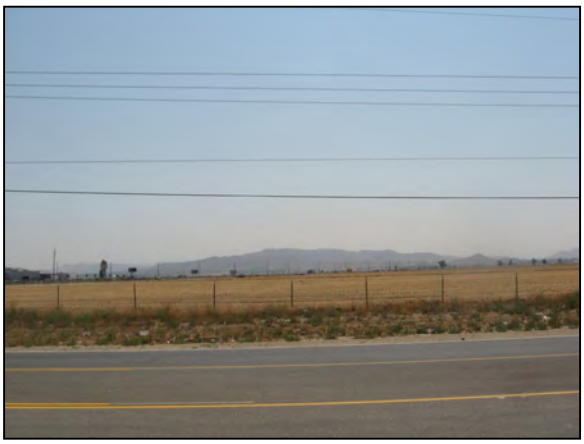


Photograph 23:

Background: Surrounding foothills

Midground: Industrial uses

Foreground: Undeveloped land



Photograph 24:

Background: Surrounding foothills

Midground: Interstate 215

Foreground: Undeveloped land

LSA

FIGURE 4.1.3F

South Perris Industrial
Environmental Impact Report
Photographic Views of Phase 3 Site

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4.1.1.4 Surrounding Land Uses

Land uses adjacent to the proposed Phase 1 project site include industrial uses to the north, a train track to the west, the SkyDive Indoor skydiving facility to the east, and undeveloped land to the south. The land uses surrounding the proposed Phase 2 project site include undeveloped land, residential uses, and industrial uses to the north, a train track and undeveloped land to the west, undeveloped land to the east, and undeveloped land to the south. Land uses surrounding proposed project Phase 3 are comprised of undeveloped land and industrial uses to the north, a post office and The Academy community day school to the west, Interstate 215 to the east, and undeveloped land and a recycling facility to the south.

4.1.2 Existing Policies and Regulations

4.1.2.1 Local Regulations

Riverside County Ordinance 655. Riverside County Ordinance 655 restricts the permitted use of certain light fixtures emitting light into the night sky that may have a detrimental effect on astronomical observation and research. This ordinance establishes two zones: Zone A is the area within a 15-mile radius of Palomar Observatory; Zone B is the area that extends from the outer limit of Zone A to 45 miles from Palomar Observatory. The project site is located within Zone B.

City of Perris Zoning Code. The following policies in the City of Perris Zoning Code apply to the proposed project.

Section 19.02.110(A) Commercial and Industrial Parking Areas.

Commercial and industrial parking areas shall have lighting, which provides adequate illumination for safety and security. Parking lot lighting fixtures shall maintain a minimum of 1-foot candlepower across the surface of the parking area. Lighting standards shall be energy efficient and in scale with the height and use of the structures on site. All lighting, including security lighting shall be directed away from adjoining properties and the public right-of-way.

Section 19.02.130(B) Commercial and Industrial Uses.

1. All buildings and structures, including parking structures, shall have 5 feet of landscape areas and irrigation systems around their perimeter. If an opaque wall or fence at least 5 feet in height is installed either along the side yard area, beyond the depth of the required front yard or the rear yard, no perimeter landscaping is required. A combination of soft and hard materials may be installed, provide the use of such materials form a cohesive, attractive, and functional design.
2. All buildings and structures, including parking structures, shall have landscaped areas and irrigation systems in the front yard areas and those side yard areas which front on the public right-of-way or are adjacent to required parking areas.
3. All landscape areas, including the parking area, shall incorporate the theme utilized for the public right-of-way. A combination of soft and hard landscape material may be installed, provided the use of such materials will form a cohesive, attractive, and functional design. Such design is to be integrated with and, if appropriate, physically connected to the landscaping area provided in number 1 above.

Section 19.44.050 Sign Standards.

Signs shall be allowed pursuant to Chapter 19.75, SIGNS, and the following standards.

A. Address Identification Signs. Site address numbers shall be twelve-inches high and located on the upper corner of the building wall facing each applicable public right-of-way,

pursuant to Section 19.75.070A. Monument signage shall also include the street address number, located such that visibility is not impaired by mature landscaping.

B. Sign Programs. Offices, industrial complexes, and similar facilities with multiple buildings and/or tenants shall submit a 'sign program' for the placement of on-site signs according to a compatible design that is common to all structures and uses. The sign program must be approved prior to issuance of any sign permit upon said site. The purposes of a sign program are to establish uniform sign design guidelines and sign area allocations for all uses and/or buildings on a site, and incorporate specific sign exceptions approved pursuant to Section 19.75.070. An application for a sign program shall be reviewed by the Director of Community Development, unless filed in conjunction with another permit, in which case said application shall be reviewed by the approval authority. The Director of Community Development may approve modifications to an approved sign program which are in compliance with the sign regulations of this chapter.

C. Industrial Sign Location and Design. Signs shall be oriented to the public street from which the structure or use takes access. Building-mounted signs should always be located above principal entrances, and monument signs should be located at street intersections or vehicular/pedestrian entrances. Signs shall be incorporated into the architectural design of the building and consolidated to reduce clutter. Signs that are designed and constructed with an industrial theme or graphically represent the land use are encouraged. Painted wall signs are prohibited.

Section 19.44.060 Landscape Standards.

Landscaping shall be provided pursuant to Chapter 19.70, LANDSCAPING, and the following standards.

A. Landscaping should be used to complement rather than to conceal building architecture. The landscape design should follow a consistent theme that links various site components together.

B. Landscaping should highlight building entries and pedestrian connections to the street and all on-site buildings and uses. Accent landscaping should also be used at street intersections, employee amenity areas, and in combination with signs.

C. Landscaping around the base of buildings is required, except for work and loading areas that are not visible from a public street. The use of vines on walls is encouraged in industrial areas because they add texture and color to long, flat walls and reduce opportunities for graffiti.

D. The Landscape Plan should incorporate special pavements (accent colors, textures, and patterns) to indicate building entrances and pedestrian pathways. Architectural features (trellises, screen walls, planters) and site furniture (benches, tree grates, light fixtures, mail boxes) should adhere to a consistent theme.

Section 19.44.070 (A) Performance Standards.

Lighting. All lighting fixtures shall be fully shielded with cut-off fixtures so that there is no glare emitted onto adjacent properties or above the lowest part of the fixture. Parking area lighting shall be provided pursuant to Section 19.02.110 A.

Section 19.44.080(C) Site and Architectural Design Guidelines.

The following design elements should be incorporated to improve the visual character of large industrial buildings:

1. Entrances: Building entrances shall be clearly defined and recessed or framed by a sheltering element such as an awning, arcade or portico in order to provide shelter from the summer sun and winter weather.

2. Variation in Massing. A single, large, dominant building mass shall be avoided to the extent feasible. Specifically, horizontal masses shall not exceed a height to width ratio of 1:3 without substantial variation in massing that includes a change in height and projecting or recessed elements.

3. Building Elevations. All architectural elevations of principal buildings over 20 feet in height shall have a clearly discernable base, body, and cap. The base shall occupy the lowest portion of the elevation, and should have a height of at least three (3) feet. The body shall occupy the middle portion of the elevation, covering about sixty percent (60%) of the average wall height. The cap shall occupy the highest portion of the elevation, excluding the roof, and shall have a dimension that does not exceed the height of the base. The cap shall consist of a cornice, parapet, awning, canopy, or eave. The base and cap shall be clearly distinguishable from the body through changes in color, material, pattern, profile, or texture.

4. Materials. The materials used on building facades play a large part in determining the appearance of a building. As a general rule, the use of high quality natural building materials such as brick, stone, tinted/textured concrete (tilt-up) are appropriate. The following is a list of permitted materials for the building base, body, and cap. Other materials not specifically mentioned may be permitted, on a case-by-case basis.

5. Building Base: Brick, native stone, manufactured stone or decorative concrete masonry units.

6. Building Body: Acceptable materials include wood, brick, native stone, manufactured stone, concrete, glass, or applied materials such as stucco or exterior insulated finish system (E.I.F.S.). Other materials such as imitation wood siding, sheet metal, corrugated metal, or other similar metal panels, are considered inappropriate and should be avoided.

7. Building Cap: The building cap shall consist of materials introduced on the base and/or body of the building. Cornices and parapets shall be distinguishable from the building body by design and profile. Awnings, canopies, and eaves shall generally incorporate alternate color and materials.

8. Fenestration and glazing. Generally, fenestration shall be used for functional and programmatic requirements and shall be designed to break up the visual size of the wall's façade. Openings should be recessed 2 to 4 inches to further articulate the facade.

   Building walls facing public streets should be highly transparent with windows and doors making up 25% of the façade. Reflective or highly tinted glass adds to the monotony of a façade and should be avoided. Buildings which include uses that do not lend themselves to fenestration (e.g. loading areas, warehouse and storage functions) should be designed so that these uses are located along walls that face away from public streets.

9. Color. The use of low reflectance, subtle, neutral, or earth tone colors as the predominant colors on the façade is encouraged. Building trim and accent areas may feature brighter colors, including primary colors. Applied paint over brick, stone, and concrete on any part of a building facade or other site elements is strongly discouraged.

10. Roofs. Building roofs should be designed to reduce the overall mass of a structure and harmonize with surrounding development. Parapet walls and roof systems shall be designed to conceal all roof-mounted mechanical equipment from view to adjacent properties and public rights-of-way. The use of varied roof lines is encouraged. Permitted roof styles include gable, mansard, and hip roofs. Flat roofs are permitted if sufficiently disguised through the use of parapet walls.

4.1.2.2 City of Perris General Plan Policies

The following policies and goals pertain to aesthetics and are applicable to the proposed project.

Land Use Element

Goal III Commerce and industry to provide jobs for residents at all economic levels.

Policy III.A Accommodate diversity in the local economy.

Circulation Element

Policy I.A.6 Require parking facility design that minimizes visual and physical impacts while maintaining pedestrian and motorist safety and supporting adjacent activities.

Policy III.A.4 Require developers to be primarily responsible for the improvement of streets and highways to developing commercial, industrial, and residential areas. These may include road construction or widening, installation of turning lanes and traffic signals, and the improvement of any drainage facility or other auxiliary facility necessary for the safe and efficient movement of traffic or the protection of road facilities.

4.1.3 Methodology

The analysis of visual impacts focuses on changes in the visual character of the project sites that would result from the development of the proposed on-site uses, including the visual compatibility of on-site and adjacent uses, changes in vistas and viewsheds where visual changes would be evident, and the introduction of sources of light and glare. Impacts to the existing environment of the project sites are to be determined by the contrast between the sites' visual settings before and after proposed development. In this analysis, emphasis has been placed on the transformation of the existing undeveloped conditions into more urbanized uses. Although few standards exist to singularly define perceptions of aesthetic value, the degree of visual change can be measured and described in terms of visibility and visual contrast, dominance, and magnitude. Concepts of visual character and quality can be organized around four elements: site utilization, buildings and structures, landscaping, and signage.

A scenic vista can be categorized as either containing a panoramic view[1] or a focal view. Panoramic views are typically associated with vantage points that provide a sweeping geographic orientation not commonly available (e.g., skylines, valleys, mountain ranges, or large bodies of water). Focal views are typically associated with views of natural landforms, public art/signs, and visually important structures, such as historic buildings. Aesthetic components of a scenic vista include three components: scenic quality, sensitivity level, and view access.

As previously stated, a viewshed can be divided into three distinct components: the foreground, midground, and background. The foreground is the part of the view that is or seems to be nearest to the viewer. The background is the part of the view that is or seems to be furthest away to the viewer. The midground view is the part of the view that is between the foreground view and the background view.

4.1.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to aesthetic resources are based on questions contained in the *CEQA Guidelines* (2008). A project would have a significant impact on aesthetic resources if it would result in any of the following:

[1] A panoramic view consists of visual access to a large geographic area, for which the field of view can be wide and extend into the distance.

- A substantial adverse effect on a scenic vista;[1]
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; and/or
- A new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

4.1.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. Through the process of preparing the Initial Study for the proposed project, impacts related to scenic vistas, and State scenic highways were found to be less than significant and therefore these items are not discussed in the EIR.

4.1.5.1 Scenic Vistas

Threshold	Would the proposed project have a substantial adverse effect on a scenic vista?

As identified in the City of Perris General Plan 2030 Draft EIR:[2]

> Because the bulk of developable land within the City of Perris is located on the flat, broad basin, virtually all future building construction consistent with land use and development standards set forth in General Plan 2030 will obstruct views to the foothills from at least some vantage points. The criterion, however, relates to a scenic vista more narrowly defined as a view through an opening, between a row of buildings or trees, or at the end of a vehicular right-of-way. To this end, the east-west and north-south oriented roadway network and the streetscapes that define them will frame and preserve scenic vistas from public rights of way to the distant horizons and foothills. Owing to the flatness of the basin, the view corridors extend for miles along current and planned roadways preserving scenic vistas from the broad basin to the surrounding foothills. Accordingly, the impact is less than significant and no mitigation measures are proposed.

As described in the City's General Plan Draft EIR, virtually all development activity envisioned in the General Plan would obstruct views of scenic vistas. However, due to the flatness of the area and the orientation of the roadway network, the preservation of scenic vistas would occur through view corridors established by the roadway network. The installation of infrastructure in the project vicinity would not have an effect on scenic vistas as water, recycled water, sewer, drainage, and brine line infrastructure would be placed underground and would not be visible. Similarly, the extension of the rail spur to the Phase 2 site would not introduce rail to the area; rather, it would extend an existing alignment to accommodate potential future rail freight distribution activity. Because the proposed project is consistent with development envisioned in the General Plan, and based on the narrow definition of what constitutes a scenic vista as described in the City's General Plan EIR, the potential impact to scenic vistas would be less than significant. No mitigation is required.

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1 The CEQA Guidelines do not indicate what a substantial adverse impact would be for a scenic vista. For purposes of discussion, the analysis presumes that a substantial adverse impact would consist of the physical modification or complete removal of the scenic vista.

2 *City of Perris General Plan 2030 Draft EIR, Section 6.0, pg VI-2,* City of Perris, October 2004.

4.1.5.2 Scenic Resources and Scenic Highways

Threshold	Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

As identified in the City of Perris General Plan 2030 Draft EIR:[1]

> Large rocks scattered among the undeveloped, rolling topography in the west-central area of the City of Perris are an obvious presence in the visual landscape in this area. However, no one rock or collection of rocks in this landscape is notable by virtue of unique formation, size, or character. However, the Planning Commission encourages the preservation of rocks by requesting applicant to submit rock preservation maps with their submittals. No notable stands of native or mature trees exist in the City and no impact is associated with development consistent with the General Plan. Impacts on significant scenic resources, therefore, are less than significant.

As described in the City's General Plan, while scenic resources are present in the City, the City does not designate a single scenic resource notable by virtue. Additionally, there are no officially designated scenic highways in the City of Perris. Therefore, because there are no scenic resources or scenic highways identified within the City, no impact would occur and no mitigation is required.

4.1.5.3 Existing Visual Character and its Surroundings

Threshold	Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?

Visual impacts associated with changes to the general character of the project sites (e.g., loss of open area), the components of the visual settings (e.g., landscaping and architectural elements), and the visual compatibility between proposed site uses and adjacent land uses would occur. The significance of visual impacts is inherently subjective as individuals respond differently to changes in the visual characteristics of an area. The project area is primarily undeveloped or underdeveloped, with scattered industrial-oriented development. The proposed development on the three project sites would change the character of the project sites from open space at Phases 2 and 3, and from an existing semi-developed character at Phase 3, to a more urbanized setting. The change in the character of the site would constitute an alteration of the existing visual character of the project site.

The development of the three project sites, in their entirety, would entail 7,399,291 square feet of industrial warehouse uses with associated parking areas, landscaping, and roadway infrastructure within approximately 454.7 acres. While implementation of the proposed project would replace the undeveloped character of the Phase 2 and Phase 3 sites with an urban setting containing warehouse uses, the Phase 1 project site would replace the semi-developed character with a more urbanized setting comprised of warehouse uses. Therefore, the change in the character of the three sites would be recognizable and would constitute a permanent alteration of the existing visual character of the project sites.

The proposed infrastructure improvements of the proposed project include the potential rail line extension for the Phase 2 site; associated roadway improvements to Ethanac Road, 4th Street, Goetz Road, Ellis Avenue, Mountain Avenue, "A" Street, Mapes Road, and Case Road; and the installation of water, recycled water, sewer, drainage, and brine line infrastructure for the three sites. The installation of infrastructure in the project vicinity would not have an effect on the visual character of the site and surroundings as water, recycled water, sewer drainage, and brine line infrastructure

[1] *City of Perris General Plan 2030 Draft EIR, Section 6.0, pg VI-2,* City of Perris, October 2004.

would be placed underground and would not be visible. Similarly, the extension of the rail spur to the Phase 2 site would not introduce rail to the area; rather, it would extend an existing alignment to accommodate potential future rail freight distribution activity. Currently, rail service exists in the project vicinity adjacent to Case Road three times per week to service business south of the City of Perris. It is not anticipated the proposed rail service to the Phase 2 site would increase the frequency of rail deliveries than what currently exists.

Figures 4.1.4A through 4.1.4C provide conceptual building elevations for the proposed project. While the final design of the proposed project may differ slightly from the renderings provided in Figures 4.1.4A through 4.1.4C, they are sufficient to assess the effect the development of the proposed project may have on aesthetic character of each project site and surrounding area. The proposed project features a variety of architectural elements including façade accents such as corner treatments and roof trim. The project also provides variation in wall planes that serve to avoid an institutional appearance of the buildings. This variation creates shadow lines at various parts of the day. As indicated in Figures 4.1.4A through 4.1.4C, the proposed project is planned to incorporate a neutral color scheme accented by tile, wood, and other materials. The combination of tile roofs, stucco finishes, stone, and alternating colors and/or materials along the building elevations will establish the mix of natural elements while maintaining visual interest over a sustained period of time.

The proposed landscaping would replace the scattered vacant weedy field with a consistent and integrated vegetation palette. Landscaping on site would be provided in accordance with Municipal Code Chapter 19.70, which requires the installation of landscaping on-site. The project would comply with these requirements by using landscaping around the base of buildings and to compliment architecture in all areas visible to the public from the street. The project will also incorporate special pavements (accent colors, textures, and patterns) to indicate building entrances and pedestrian pathways. Additionally, the proposed project includes the installation of water-efficient landscaping throughout the industrial development with landscaping proposed along the project perimeter and internal drives.

Although the visual characteristic of the project site would change, the proposed project would replace the existing semi-developed (Phase 1) and vacant parcels (Phases 2 and 3) with an attractive, well-designed development through the use of architectural elements, landscaping, and design of the project site. In addition, the proposed project would be designed and constructed per applicable City Municipal Code and General Plan standards. Therefore, because no demonstrable negative aesthetic effect to the existing visual character or quality of the project sites or their surroundings is anticipated to result from the proposed project, no significant impact related to this issue would occur.

4.1.5.4 Light and Glare

Threshold	Would the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Currently, there are no significant sources of light or glare existing within any of the three sites.

The Phase 1 site is currently developed with industrial uses. This industrial use consists of a concrete casting operation and materials storage areas that operate primarily during daylight hours. Existing sources of light and glare from the areas surrounding the proposed Phase 1 and 2 include street lights, and exterior lighting as well as the Perris Valley Airport which is directly adjacent and east of the Phase 1 site and northeast of the Phase 2 site in the northeast corner of Mapes Road and Goetz Road. Ambient nighttime lighting in the vicinity of the Phase 3 site is characteristic of those within Phases 1 and 2, and of areas along a major transportation corridor.

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FIGURE 4.1.4A

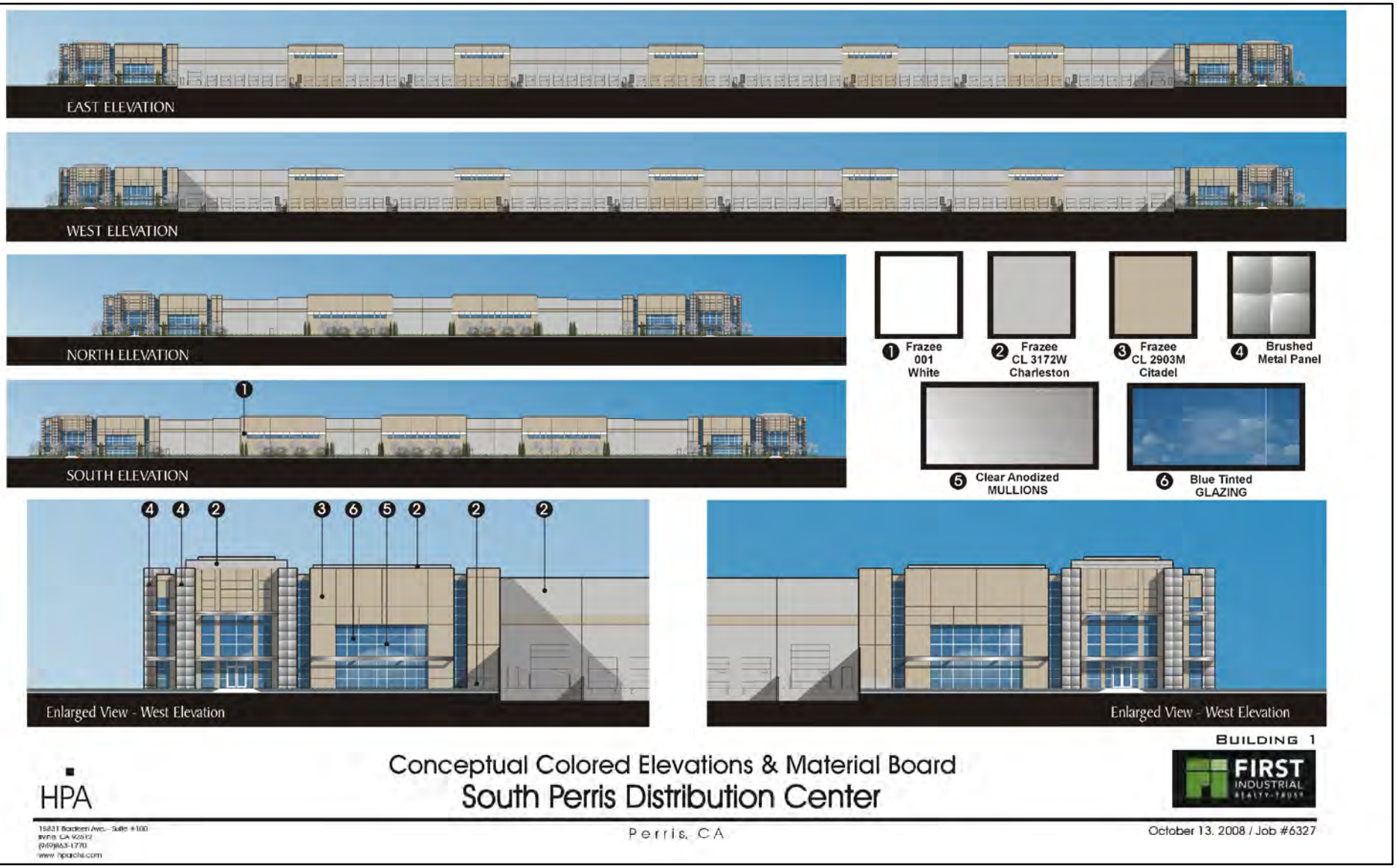
South Perris Industrial
Environmental Impact Report

Conceptual Building Elevations for Phase 1 Site

SOURCE: First Industrial Realty Trust (2007)

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FIGURE 4.1.4B

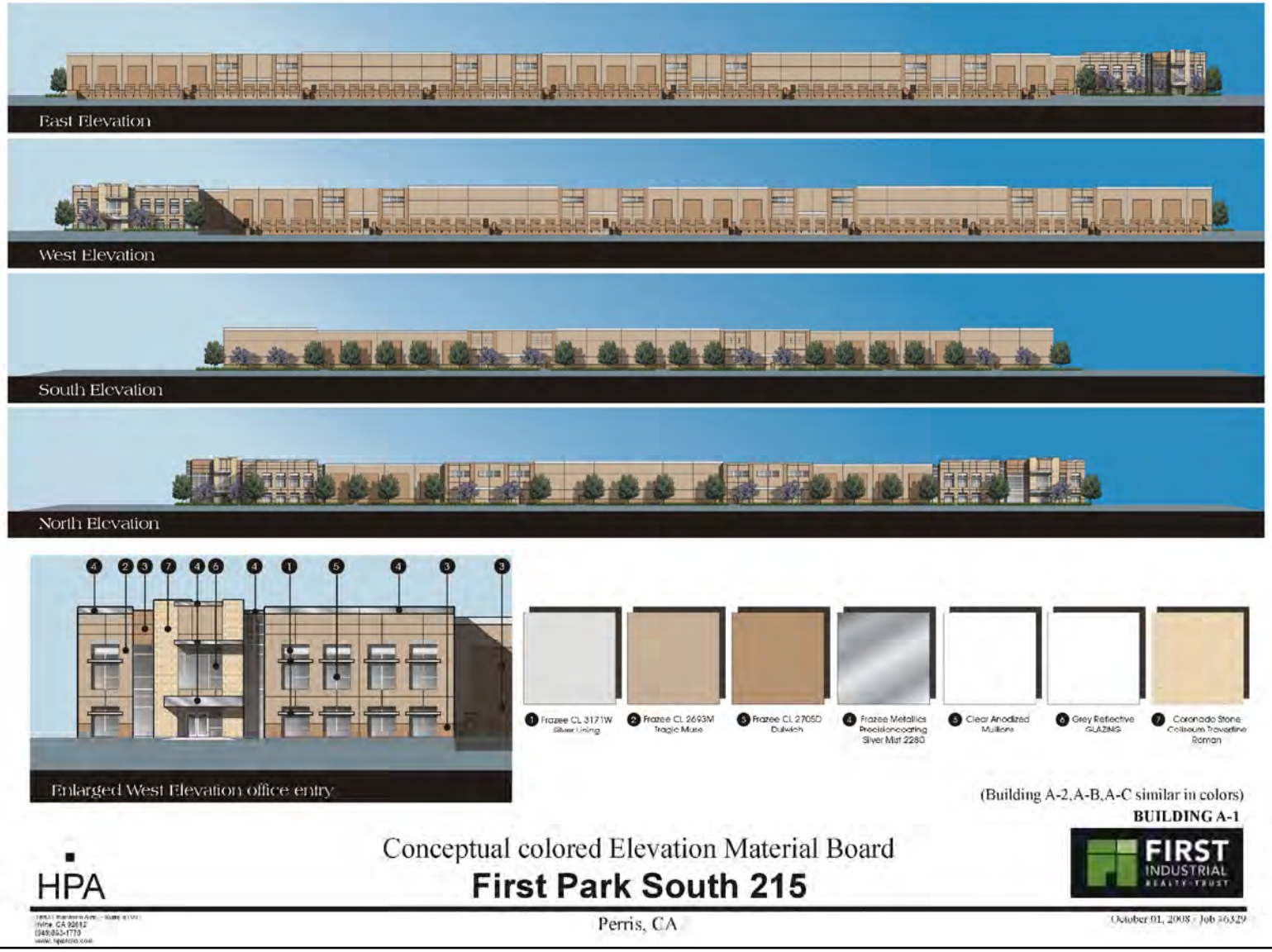
South Perris Industrial
Environmental Impact Report

Conceptual Building Elevations
for Phase 2 Site

SOURCE: First Industrial Realty Trust (2007)

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FIGURE 4.1.4C

South Perris Industrial
Environmental Impact Report

Conceptual Building Elevations
for Phase 3 Site

SOURCE: First Industrial Realty Trust (2007)

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Development of the project sites would introduce into the area a new source of light and glare in the form of street lighting, parking lot lighting, and outdoor security lighting for buildings and headlights from any additional vehicle traffic. As previously indicated, the County of Riverside through the passage of Ordinance 655, has established two nighttime lighting zones which creates a radius around the Mount Palomar Observatory. While not located within Riverside County, astronomical observations at the Mount Palomar Observatory would be affected by cumulative increases in lighting sources. The nighttime lighting zones were created to ensure the astronomical observation at the Mount Palomar Observatory would not be impacted by light pollution coming from urban development. Zone A encompasses a 15-mile radius centered on Mount Palomar Observatory while Zone B encompasses a larger area with a 45-mile radius and extends from the outer limit of Zone A to the end of the 45-mile radius area.

The intent of Riverside County Ordinance Number 655 is to restrict the permitted use of certain light-emitting fixtures, which have a detrimental effect on astronomical observation and research at the Mount Palomar Observatory. Although Mount Palomar Observatory is located approximately 42 miles southeast of the project site, the project site is located within Zone B of the Mount Palomar Nighttime Lighting Policy Area.[1] Ordinance 655 restricts the permitted use of certain light fixtures emitting undesirable light rays into the night sky, which may have a detrimental effect on astronomical observation and research at the Mt. Palomar Observatory. As stated in Section 5(A) of Ordinance 655, "low- pressure sodium lamps are the preferred illuminating source" in the Mount Palomar Nighttime Lighting Policy Area. Other lighting types of lighting systems are permitted in parking areas as long as they do not exceed 4,050 lumens. Lighting "allowed" under Ordinance 655 must be fully shielded (if feasible) and partially shielded in all other cases, and must be focused to minimize spill light into the night sky and onto adjacent properties.

Development of the proposed site with industrial uses would introduce into the area new sources of light in the form of signage, building lighting, and parking lot lighting. Utility and infrastructure improvements would not result in the introduction of light and glare sources. It is anticipated that the materials utilized in the construction of the proposed lighting fixtures would be generally similar to those utilized in nearby warehouse uses within the City. Lighting within loading areas (areas generally directed away from the public view) would consist of building-mounted lighting. The proposed Phase 1 on-site uses would be visible from Goetz Road and Mountain Avenue, Phase 2 on-site uses would be visible from Mapes Road, Watson Road and Goetz Road, and the proposed Phase 3 uses would be visible from Ellis Avenue, Redlands Avenue, and 7th Street.

Exterior surfaces of the concrete tilt-up structure would be finished with a combination of architectural coatings, trim, and/or other building materials such as concrete and brushed metal. The proposed project is not expected to significantly increase the amount of daytime glare in the project area. All development in the City, which includes light generated from commercial buildings and parking lots, is required to adhere to lighting requirements contained in the City's Zoning Code and Riverside County Ordinance 655. Chapter 19.69 of the City's Zoning Code states that any illumination, including security lighting, shall utilize full-cutoff lighting fixtures that are directed away from adjoining properties and the public right of way. The measures are uniformly applied to all development in the City. As such, adherence to these measures would be mandatory and enforceable through the review and approval (or non-approval) of the project plans. Adherence to the City's Zoning Code and Riverside County Ordinance 655 would ensure that any building or parking lighting would not significantly impact adjacent uses. Therefore, impacts associated with this issue are less than significant and no mitigation would be required.

[1] *Figure 6: Mount Palomar Nighttime Lighting Policy,* Reche Canyon/Badlands Area Plan, Riverside County General Plan, Volume 2, County of Riverside, http://www.rctlma.org/genplan/content/ap1/swap.html?zoom_highlight=the+Mount+Palomar+; website accessed June 7, 2008.

4.1.6 Significant Impacts

All potential aesthetic impacts of the proposed project have been determined to be less than significant. Therefore, no significant impacts associated with aesthetic resources would occur.

4.1.7 Cumulative Impacts

The cumulative effect on scenic vistas from the proposed project would be less than significant as scenic vistas would not be affected from viewpoints within certain project locations and adjacent roads. Although the development of the proposed project would partially obstruct views of surrounding mountain ranges from current vantage points near the project structures, vistas would not be completely obstructed from viewpoints afforded from the circulation network, openings between rows of buildings or trees, or at the end of vehicular rights-of-way. Compliance with the City's Municipal Code, General Plan standards, and proposed applicable existing adopted regulations would ensure that the proposed project in combination with other projects in the area would not result in significant impacts upon scenic vistas. As a result, the projects would create a less than significant cumulative impact on local scenic vistas.

Development of lands within the City would result in the cumulative conversion from open space to a more urbanized land use. However, this is a continuing development trend currently occurring within the southern portion of the City that has been anticipated in the City's General Plan. The proposed project, in conjunction with other cumulative projects would be developed in a manner consistent with existing development trends in the City. Cumulatively, more lighting would be introduced into the area by proposed, existing, and future development. As with past and currently proposed development, cumulative lighting-related impacts would be reduced through the adherence to applicable City lighting standards. No cumulatively significant lighting impact would result from implementation of the proposed project.

4.2 AGRICULTURAL RESOURCES

This section discusses agricultural resource impacts attributable to the proposed project. It describes existing agricultural resources as well as respective State farmland classifications for the project site. This section focuses on discussions involving applicable State, regional, and local policies regarding agricultural resources and the conversion of farmland to non-agricultural uses.

The analysis contained in this section is based in part on the following reference documents:

- A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.
- California Land Evaluation and Site Assessment Model, Instruction Manual, California Department of Conservation, Office of Land Conservation, 1997.
- Conservation Element, City of Perris General Plan, adopted July 12, 2005.
- Land Use Element, City of Perris General Plan, adopted April 26, 2005
- Perris General Plan Environmental Impact Report, certified April 26, 2005.
- Riverside County Land Use Conversions, 1998-2000, 2000-2002, 2002-2004, 2004-2006, California Department of Conservation, Division of Land Resources Protection.
- Riverside County 2007 Agricultural Production Report, 2007.
- Soil Survey Western Riverside County Area California, United States Department of Agriculture, November 1971.
- *Economic Viability of Agriculture, Perris Valley*,. CBRE Consulting, March 18, 2009 (Appendix B-2 of this EIR).

The California Land Evaluation and Site Assessment (LESA) Model worksheets prepared for the various project sites are included as Appendix B-1 to this EIR.

4.2.1 Existing Setting

Approximately 52 percent of the land within the City currently is or formerly has been utilized for agricultural purposes. Many agricultural fields have been out of production for a number of years and are dominated by disturbed ruderal (weedy) vegetation. Various forms of disturbance related to agricultural uses include frequent disking, pesticide application, and irrigation. Farmland within the City most often is used for sod farms, alfalfa, hay, and other dryland farming. High-yield or cash crops are not a principal characteristic of Perris agricultural production or economy.[1]

The Phase 1 site of the proposed project is identified as containing developed/disturbed vegetation (primarily consisting of ornamental landscaping). The Phase 2 and Phase 3 sites of the proposed project historically have been used in the past for agricultural purposes such as dryland farming of grain and seed crops such as barley, cereal rye, oats, and wheat.[2] The Phase 2 and Phase 3 sites have been leased in the past to grow alfalfa and graze sheep; however, the sites have not been actively planted or cultivated for at least three years prior to the preparation of this EIR.

Existing light industrial operations border the Phase 1 site to the north, south, and west while undeveloped land is located to the east. Currently, light industrial operations are located north of the Phase 2 site of the proposed project while areas to the south, east, and west are undeveloped land.

[1] Conservation Element, City of Perris General Plan, adopted July 12, 2005.
[2] Phase 1 Environmental Site Assessment 215 Acres of Agricultural Land, Advantage Environmental Consultants, LLC, October 3, 2007.

Similarly, light industrial operations are located to the north and west of the Phase 3 site while areas to the south and east are undeveloped.

4.2.1.1 State Designated Farmland

The California Government Code (Section 65570) requires the collection and reporting of agricultural land use acreage and conversion by June 30 of each even-numbered year. Utilizing data from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil survey and current land use information, the California Department of Conservation (DOC), the Farmland Mapping and Monitoring Program (FMMP)[1] compiles important farmland maps for each county within the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. These maps delineate land use in eight mapping categories (and one overlay category) and represent an inventory of agricultural soil resources within Riverside County. The categories of land shown on these maps are listed below.

- **Prime Farmland**: Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
- **Farmland of Statewide Importance**: Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
- **Unique Farmland**: Land of lesser-quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of Unique Farmland crops include oranges, olives, avocados, rice, grape, and cut flowers.
- **Farmland of Local Importance**: Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees, i.e., dairies, dryland farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.

  Farmland of Local Importance in Riverside County is defined as:

  - Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
  - Lands planted with dryland crops of barley, oats, and wheat.
  - Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
  - Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
  - Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
  - Lands planted to jojoba which are under cultivation and are of producing age.

[1] A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.

- **Grazing Land**: Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.
- **Urban and Built-up Land**: Land used for residential, industrial, commercial, construction, institutional, public administrative purposes such as railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities also are included in this category.
- **Other Land**: Land not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.
- **Water**: Water areas with an extent of at least 40 acres.
- **Land Committed to Nonagricultural Use:** This optional designation is an overlay to the standard farmland categories and represents existing farmland and grazing land and vacant areas which have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural developments that are not reversible by a simple majority vote by a city council or board of supervisors.

The distribution of Farmland designations is detailed in Figure 4.2.1 and Table 4.2.A. The majority of the Phase 1 site is designated as Urban and Built-up or Other Land, while the Phase 2 and 3 sites are overwhelming designated Farmland of Local Importance. One small area located south of the Phase 3 site (north of Case Road and east of Redlands Boulevard) has been assigned the "Land Committed to Nonagricultural Use" overlay. The predominant farmland designation adjacent to the Phase 2 and 3 sites is Farmland of Local Importance. The Phase 1 site abuts Farmland of Local Importance, Urban and Built-up Land and Other Land.

Table 4.2.A: Farmland Mapping and Monitoring Program Designations

Site	Acres	On-site Designation(s)	Adjacent Designation(s)
Phase 1	38.20	Farmland of Local Importance (13.41 acres) Urban and Built-Up Land (18.38 acres) Other Land (6.41 acres)	Farmland of Local Importance (N, S, E, W) Other Land (S, W) Urban and Built-up Land (E)
Phase 2	164.42	Farmland of Local Importance (164.42 acres)	Farmland of Local Importance (S, E, W) Other Land (N)
Phase 3	219.36	Farmland of Local Importance (218.81 acres) Urban and Built-Up Land (0.55 acre)	Farmland of Local Importance (N, S, E) Urban and Built-Up Land (S, W)
Total	**421.98**	Farmland of Local Importance (396.64 acres) Urban and Built-up Land (18.93 acres) Other Land (6.41 acre)	

Source: Farmland Mapping and Monitoring Program, Riverside County 2004–2006.

4.2.1.2 General Plan and Zoning Designations

The City's 1991 General Plan Land Use Element redesignated all agricultural lands in the City for uses other than agriculture, thereby eliminating the City's General Plan "agricultural" land use designation. The EIR accompanying the City's 1991 General Plan identified that the conversion of agricultural land to nonagricultural uses represented a significant cumulative impact. As the transition from agricultural to more urban and suburban uses continues, the extent to which agriculture and supporting economic activities contribute to the economic base of the City is reduced. In its adoption

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FIGURE 4.2.1

- PROJECT SITES
- PROJECT AREA
- LAND DEDICATED FOR URBAN USES
- FARMLAND OF LOCAL IMPORTANCE
- URBAN AND BUILT-UP LAND
- OTHER LAND
- WILLIAMSON ACT 2006

South Perris Industrial Environmental Impact Report

State Farmland

SOURCE: USGS 7.5' Quads: Perris, Romoland (1978), CA; Thomas Bros. (2007); Dept. of Conservation FMMP (2006)

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of the 1991 General Plan, the City recognized that these losses were offset by the economic activities and social benefits that typically accompany urban development. To support the conclusion that a significant cumulative impact would result from implementation of the 1991 General Plan, the City adopted findings and facts and a Statement of Overriding Considerations indicating that social and economic factors outweighed the significant cumulative impacts associated with conversion of agricultural land to non-agricultural use.

In the EIR accompanying the City's 2005 General Plan Update did not identify any significant agricultural resource impact. As stated in the Initial Study that preceded preparation of the City's 2005 General Plan EIR:

> "Areas surrounding existing agricultural uses have been or will be developed for nonagricultural, urbanized uses. All properties in agricultural production are designated for similar, non-agricultural urbanized uses. The project General Plan will replace the 1991 General Plan whose Land Use Element included no "agricultural" designation. Therefore, adoption and implementation of the project General Plan will have no impact."

As the City of Perris undergoes its transition into an urban area, conversion of agricultural lands has been identified as a goal of both the current (2005) and past (1991) General Plans. Neither Plan established agricultural land use designations. The Phase 1 and Phase 2 sites of the proposed project are designated "General Industrial" in the City of Perris General Plan and zoned "General Industrial." The Phase 3 site of the proposed project is designated "Specific Plan-Industrial" in the City's General Plan and zoned "General Industrial."

4.2.1.3 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also referred to as the Williamson Act, is a non-mandated State program administered by counties and cities for the preservation of agricultural land. This program enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive much lower property tax assessments than normal because the assessments are based upon farming and open space uses rather than full market value.

Participation in the program is voluntary on the part of both landowners and local governments, and it is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts. Individual property owners enter into a contract that restricts or prohibits development of their property to non-agricultural uses during the term of the contract in return for lower property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government. In the City of Perris, 712 acres currently are under Williamson Act contract.[1] At present, none of the proposed project sites or adjacent properties is subject to a Williamson Act Conservation contract.[2]

4.2.2 Existing Policies and Regulations

4.2.2.1 City of Perris General Plan Policies

The project sites are within Planning Area 8-Perris Valley Airport/South Industrial. The Perris Valley Airport anchors this Planning Area and is surrounded by industrial land use designations. Two specific plans set forth land use designations in this Planning Area: the Green Valley Specific Plan and the New Perris Specific Plan. According to the General Plan, the land use designations within

[1] Conservation Element, City of Perris General Plan, adopted July 12, 2005.
[2] Department of Conservation, FMMP, 2006.

this Planning area are as follows: Approximately 83 percent is industrial, 5 percent is commercial, and the remaining 13 percent is open space and other uses.

Because a large portion of this Planning Area is undeveloped, and due to its proximity to the Perris Valley Airport, the City envisages land uses that would generate jobs and revenue while expanding the availability of goods and services.

The following goals and policies pertain to and are applicable to the proposed project.

Land Use Element

Goal III	Commerce and Industry to provide jobs for residents at all economic levels.
Policy III.A	Accommodate diversity in the local economy.
Measure III.A.1	Rezone properties to be consistent with the Land Use Plan Map.
Measure III.A.2	Revise the Zoning Ordinance to include appropriate properties within Special Study Areas and identify milestones for changing their land use designations to provide a balance among Community Commercial, Business Park, and Light Industrial properties.

Land Use Element

Goal IV	Consistency among all the planning documents.
Policy IV.A	The General Plan and the Zoning Code shall be revised and updated to maintain consistency with each other, and with regional plans.
Measure IV.A.I	Change the Zoning Code and Zoning Map to ensure consistency with the Land Use Plan.

Conservation Element

Goal I	Agricultural Resources: Orderly conversion of agricultural lands to other approved land uses.
Policy I.A	Establish growth management strategies to ensure the proper timing and economic provisions for utilities, major streets and other facilities so that orderly development will occur.
Measure 1.A.1	Revise the capital facilities fee program so that all infrastructure construction and improvements attributable to new development are fully funded.
Measure 1.A.2	Require that development applications for projects over 100 acres or more include master plans with backbone infrastructure paid for and installed by the developer.

4.2.3 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to agricultural resources. Based on these significance thresholds, potential impacts to agricultural resources could be considered significant if the proposed project:

- Resulted in the conversion of Prime, Unique, or Statewide Important farmland as shown on the maps prepared by the FMMP;
- Conflicted with existing zoning for agricultural use, or a Williamson Act contract; and/or
- Involved changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

4.2.3.1 Methodology

The methodological analysis underlying this section of the EIR consists of the following:

First, analysis of the FMMP to determine whether the proposed project sites contain or consist of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as determined by the FMMP maps.

Second, the analysis evaluates the current General Plan land use designations and zoning applicable to the site to determine the existence of any conflicts between the proposed project and any potential existing agricultural General Plan and zoning designations applicable to the site.

Finally, the California Land Evaluation and Site Assessment Model (LESA), developed by Department of Conservation (DOC), is used to quantify any potential impacts the proposed project may have on agricultural resources. Utilization of the LESA model is currently considered to be the most reliable method by which to determine a project's potential impacts on agricultural resources. In the late 1980s and the early 1990s, the DOC and the State Legislature began exploring ways by which local agencies could analyze the specific impacts of local projects on the conversion of farmland in a manner that was consistent throughout the State. At that point in time, reference to the FMMP maps was the only widely utilized methodological approach to analyzing conversion impacts and oftentimes the FMMP maps were outdated and/or did not contain specific data on local conditions that better explain whether local land contains viable farmland. To this end, federal and state agencies were cognizant of the fact that the significance of agricultural conversions was a function of understanding the specific characteristics affecting a particular site. In order to create a more detail-orientated methodological approach to assessing agricultural impacts, following the preparation of several state and federal studies, the DOC developed the LESA model as an optional method by which local agencies could assess the impacts of land conversion on agricultural resources. (See, e.g., Stats. 1993, Ch. 812; Pub. Res. Code § 21095; California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987.) Because of its comprehensive use of localized input factors, use of the LESA model is often characterized as the preferred methodological tool by which to assess the significance of a proposed project's impacts on agricultural resources.

4.2.4 Less Than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required), or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.2.4.1 Conversion of Prime, Unique, or Statewide Important Farmland

Threshold	Would the proposed project result in the conversion of Prime, Unique, or Statewide Important Farmland as shown on the maps prepared by the FMMP?

As discussed above, the DOC Office of Land Conservation publishes a Farmland Conversion Report every two years as part of its FMMP. These reports document land use conversion by acreage for each California county. The most recent data are for 2004–2006, during which period,[1] Riverside County experienced a net loss of 7,954 acres of Prime Farmland. The amount of Prime Farmland inventoried in Riverside County during the last countywide survey of farmland totaled 128,505 acres. However, because none of the three project sites or the area in which the rail line extension, roadway

[1] Table A-23 Riverside County 2004-2006 Land use Conversion, Farmland Mapping and Monitoring Program, California Department of Conservation Division of Land Resource Protection,.http://redirect.conservation.ca.gov/DLRP/fmmp/county_info_results.asp; website accessed October 28, 2008.

improvements, and installation of utility infrastructure would occur is currently designated Prime, Unique, or Statewide Important Farmland, no conversion of Prime, Unique, or Statewide Important Farmland would occur. In the absence of any conversion of such farmland, no impact related to this issue would occur. Therefore, no mitigation is required.

In a comment letter submitted in response to the NOP dated August 29, 2008, the DOC asserted that Phases 1 and 2 of the proposed project site are located on Farmland of Statewide Importance and that Phase 3 is located on Prime Farmland. Consultation[1] with the DOC staff indicated that this assertion is incorrect. None of the three project sites or the area in which the rail line extension, roadway improvements, and installation of utility infrastructure would occur is currently designated Prime, Unique, or Statewide Important Farmland.

This EIR utilizes the LESA model as one of the analytical tools by which to assess the proposed project's impacts on agricultural conversion. Appendix G of the CEQA Guidelines states as follows: "In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland." Further, as stated above, the LESA model was specifically created by the DOC in order to provide "specific guidance concerning how agencies should address farmland conversion impacts." (California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987, p. 3.) Because of its use of localized inputs as part of the model, the LESA model is generally considered the preferred methodological tool by which to assess the significance of a proposed project's impacts related to agricultural resources.

4.2.4.2 Termination of Williamson Act Contracts

Threshold	Would the proposed project conflict with a Williamson Act contract?

The Phase 1, Phase 2, and Phase 3 sites of the proposed project are not covered under a Williamson Act Contract;[2] therefore, the project would not conflict with any Williamson Act contract. Phase 2 of the proposed project also includes the potential for rail line extension to service the project site. The right-of-way for the potential rail line extension is not covered under a Williamson Act Contract. The area in which the associated roadway improvements and installation of utility infrastructure would occur is not covered under a Williamson Act contract. Because the project would not conflict with any Williamson Act contract, no impacts related to this issue would occur with implementation of the proposed project. No mitigation is required.

4.2.4.3 Conflict with an Existing Agricultural Zone

Threshold	Would the proposed project conflict with existing zoning for agricultural use?

As identified in the City's General Plan, currently, there are no agricultural zones identified by the City on any of the project sites or any of the surrounding properties.[3] As previously indicated, the Phase 1 site and Phase 2 site of the proposed project are designated "General Industrial" in the City of Perris General Plan, and zoned "General Industrial." The Phase 3 site of the proposed project is designated "Specific Plan-Industrial" in the City's General Plan, and zoned "General Industrial." The proposed project would also result in the possible rail line extension for Phase 2, roadway improvements along Goetz Road, Ellis Avenue, Mountain Avenue, "A" Street, Mapes Road, and Case Road; and the installation of water, recycled water, sewer, drainage, and brine line infrastructure for the three sites.

1 Telephone conversation with Elliott Lum, Environmental Planner, Department of Conservation, February 26, 2009.
2 Williamson Act GIS Coverage, Riverside County, 2006.
3 *Land Use Map, Land Use Designations,* City of Perris General Plan, April 26, 2005.

Because the Phase 1, Phase 2, and Phase 3 sites are not zoned for agricultural uses, and because surrounding areas, which include the area where infrastructure improvements would occur, are not zoned for agricultural uses, implementation of the proposed project would not conflict with existing zoning for agricultural uses. Therefore, no impact associated with this issue would occur. In the absence of a significant impact, no mitigation is required.

4.2.4.4 The Conversion of Agricultural Lands to Non-Agricultural Uses

Threshold	Would the proposed project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The conversion of agricultural land to non-agricultural uses is a result of various economic and demographic factors. Increased costs for water and a continuing demand for housing and commercial development in the City and region have provided the primary impetus for this agricultural land conversion. As previously stated, the Phase 1 site is either developed or vegetated primarily with ornamental landscaping. The Phase 2 and Phase 3 sites have been historically used for agricultural purposes such as dryland farming (grain and seed crops such as barley, cereal rye, oats, and wheat);[1] however, the Phase 2 and Phase 3 sites have not been actively planted or cultivated for at least several years.

As has been extensively discussed above, to quantify a development project's potential impacts on agricultural resources, the DOC has developed the LESA Model, a method of rating the relative quality of land resources and potential impacts to agricultural resources. The LESA Model is intended to provide lead agencies with a methodology to identify potentially significant impacts that may result from agricultural land conversions.

The LESA Model uses six different factors (two based on soil resource quality and four based on on-site and adjacent land characteristics) to develop a weighted score that identifies the significance of potential impacts to agricultural resources. The Land Evaluation (LE) scoring utilizes two soil factors. The Land Capability Classification (LCC) indicates the suitability of soils for most kinds of crops, and the risk of damage when they are used in agriculture, while the Storie Index provides a numeric rating (0–100) of the relative degree of suitability or value of a given soil for intensive agriculture. The Site Assessment (SA) scoring considers the size of the site to be converted, water supply restrictions in drought and non-drought years, and the presence (or absence) of adjacent agricultural, habitat, or parkland uses.

By assessing and weighing a variety of soil, water, and land use characteristics, it is possible that the conversion of a large parcel containing poor soils and with limited access to water would not result in a significant impact, while the conversion of a much smaller well-watered parcel with quality soils could be considered significant. To ensure potential impacts to adjacent agricultural activities are appropriately considered, the LESA model requires an examination of land use on all parcels within a Zone of Influence (ZOI) that extends a minimum 0.25 mile from the actual boundary of the site. For any site evaluated using the LESA model, the factors are rated, weighed, and combined, resulting in a single numeric score that becomes the basis for determining a project's potential significance.[2]

To assess potential agricultural resource impacts that may result from development of the proposed sites, the LESA model was run for each of the sites. The results of the LESA analysis are detailed in Tables 4.2.B through 4.2.D, while Table 4.2.E identifies the significance determinations based on the

[1] Phase 1 Environmental Site Assessment 215 Acres of Agricultural Land, Advantage Environmental Consultants, LLC, October 3, 2007.

[2] California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

LESA scoring system. The worksheets detailing the variables considered during the evaluation of each site are included as Appendix B.

Table 4.2.B: Phase 1 Land Evaluation and Site Assessment Scoring

Factor Name	Factor Rating (0–100 Points)	×	Factor Weighting (Total = 1.00)	=	Weighted Factor Rating
Land Evaluation					
1. Land Capability Classification	70.76	×	0.25	=	17.69
2. Storie Index Rating	63.90	×	0.25	=	15.97
Land Evaluation (LE) Subscore					**33.66**
Site Assessment					
1. Project Size	30	×	0.15	=	4.50
2. Water Resource Availability	0[1]	×	0.15	=	0
3. Surrounding Agricultural Land	10	×	0.15	=	1.50
4. Protected Resource Lands	0	×	0.15	=	0
Site Assessment (SA) Subscore					**6.0**
Phase 1 TOTAL LESA SCORE (LE + SA)					**39.66**

Note: The Water Resource Availability Factor is intended to measure the availability of agricultural water. As the Phase 1 site is currently developed or otherwise utilized for non-agricultural uses, the consideration of agricultural water supply availability for this site is not warranted, and a score of 0 is appropriate.

Source: LSA Associates, Inc. January 2009.

The Phase 1 site is either developed or vegetated primarily with ornamental landscaping. The limited size of the Phase 1 site, the absence of on-site agricultural uses, and the limited amount of agricultural operations within the ZOI for the site results in a low SA subscore. The LESA score for the Phase 1 site does not exceed the thresholds that would indicate a significant agricultural resource impact.

Table 4.2.C: Phase 2 Land Evaluation and Site Assessment Scoring

Factor Name	Factor Rating (0–100 Points)	×	Factor Weighting (Total = 1.00)	=	Weighted Factor Rating
Land Evaluation					
1. Land Capability Classification	78.86	×	0.25	=	19.72
2. Storie Index Rating	58.63	×	0.25	=	14.66
Land Evaluation (LE) Subscore					**34.38**
Site Assessment					
1. Project Size	90	×	0.15	=	13.50
2. Water Resource Availability	25	×	0.15	=	3.75
3. Surrounding Agricultural Land	0	×	0.15	=	0
4. Protected Resource Lands	0	×	0.15	=	0
Site Assessment (SA) Subscore					**17.25**
Phase 2 TOTAL LESA SCORE (LE + SA)					**51.63**

Source: LSA Associates, Inc. January 2009.

While the Phase 2 site has been leased for farming, no active planting or cultivation has occurred on the site for at least three years. Due to the limited amount of surrounding agricultural land, and

because of the absence of water infrastructure in the project vicinity, irrigated production is not feasible; the SA subscore does not exceed 20 points. Based on this subscore, the conversion of the Phase 2 site would not result in a significant agricultural resource impact.

Table 4.2.D: Phase 3 Land Evaluation and Site Assessment Scoring

Factor Name	Factor Rating (0–100 Points)	×	Factor Weighting (Total = 1.00)	=	Weighted Factor Rating
Land Evaluation					
1. Land Capability Classification	52.00	×	0.25	=	13.00
2. Storie Index Rating	18.18	×	0.25	=	4.54
Land Evaluation (LE) Subscore					**17.54**
Site Assessment					
1. Project Size	80	×	0.15	=	12.00
2. Water Resource Availability	45	×	0.15	=	6.75
3. Surrounding Agricultural Land	85	×	0.15	=	12.75
4. Protected Resource Lands	0	×	0.15	=	0
Site Assessment (SA) Subscore					**31.50**
Phase 3 TOTAL LESA SCORE (LE + SA)					**49.04**

Source: LSA Associates, Inc. January 2009.

While the Phase 3 site was leased for farming many years ago, no active planting or cultivation of the site has occurred for at least three years. Although the Phase 3 site is the largest of the three sites, the soils on this site are of a lower quality. Therefore, the LE subscore for this site is less than 20. Based on this score, the conversion of the Phase 3 site does not result in a significant agricultural resource impact.

Table 4.2.E: LESA Model Significance Determination

Total LESA Score	Scoring Decision
0–39 Points	Not considered significant
40–59 Points	Considered significant *only* if LE and SA subscores are each *greater* than or equal to 20 points
60–79 Points	Considered significant *unless* either LE or SA subscore is *less* than 20 points
80–100 Points	Considered significant

Source: California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

The scoring of the LESA modeling for the three sites is provided in Table 4.2.F.

Table 4.2.F: Summary of LESA Assessments

Phase	LESA Score	Significance Determination
Phase 1	39.66	Not significant: Total LESA score is less than 40 (39.66), SA subscore is less than 20 (6.0)
Phase 2	51.63	Not significant: SA subscore is less than 20 (17.25).
Phase 3	49.04	Not significant: LE subscore is less than 20 (17.54).

Source: LSA Associates, Inc. January 2009.

One of the goals stated in the City's General Plan is the "orderly conversion of agricultural lands." The proposed project is a logical extension of the existing development in the area and has been planned by the City for a number of years. In addition, none of the lands adjacent to the project sites are designated for agricultural use in the City's General Plan or the City's Zoning Code. Rather, the City has been planning for the orderly conversion of all agricultural lands within City boundaries since at least 1991, when the City deleted, due to economic realties, agricultural uses as a permitted use within City boundaries. Further, as established by the LESA scores set forth above, none of the project sites contains land that is suitable for agricultural uses.

Because of these aforementioned factors, the proposed project does not interfere with the ability of other adjacent properties to be used for agricultural production should the property owner(s) wish to do so. No gaps of vacant or agricultural land are created between the proposed project and the existing adjacent development; therefore, the project is considered to be an orderly conversion of agricultural land and consistent with the goals of the City's General Plan.

Lastly, as established by the completion of the LESA model for each of the project sites, no significant agricultural resource impact would result from the conversion of the sites to non-agricultural uses. In the absence of a significant impact, no mitigation is required.

4.2.4.5 Conversion of Existing or Future Agricultural Operations on Adjacent Properties

Threshold	Would the proposed project involve changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use?

The conversion of a project site from its agricultural condition to industrial uses would represent a direct impact. (As stated above, the proposed project site is not currently used for agricultural uses, and due to its poor LESA scores, the project sites are not suitable for agricultural use.) However, indirect CEQA impacts would occur in the event a proposed project hastened or contributed to the conversion of adjacent agricultural properties to nonagricultural uses. The scope of these types of indirect impacts is assessed in this section of the DEIR.

The proposed industrial project is located close to planned and approved developments, including the New Perris Specific Plan, which consists of the development of multiple land uses on 596 acres and is planned for the west side of I-215.

Whether adjacent agricultural land is developed depends on several factors including market demand, availability of property, profitability of the agricultural use, and the landowner's interest in continuing farming. In addition, the City's 1991 General Plan Land Use Element eliminated the "agricultural" land use designation. Accordingly, the EIR prepared in conjunction with the 1991 General Plan identified the conversion of agricultural land as a significant cumulative impact. Findings and facts indicating that certain social and economic factors outweighed the cumulative impacts associated with conversion of agricultural land to non-agricultural use and a Statement of Overriding Considerations were adopted by the City in approving the General Plan and certifying the EIR. As the impacts associated with the conversion of agricultural land had been previously identified as significant (and appropriately overridden) in the City's 1991 General Plan EIR, no significant agricultural resource impact resulting from implementation of the City's 2005 General Plan would occur.

As stated previously, one of the factors considered in the preparation of the LESA model are the land uses located within each site's ZOI. The amount of agricultural land within the ZOI for the Phase 1 and 2 sites totaled 22.7 and 16.9 percent, respectively; while approximately 65 percent of the land within the ZOI for Phase 3 is used for agriculture. The condition and use of land adjacent to each site

was assessed in the LESA model prepared for each site. As earlier established, the results of the three LESA models concluded that the conversion of the sites to non-agricultural uses would not result in a significant agricultural resource impact. Given the pattern of development in the City, the City's vision for the project area as evidenced by the General Plan and zoning, the approved and proposed development in the project area, and the consideration of adjacent uses in the preparation of the LESA analysis, it is reasonable to conclude development of the sites as proposed by the project would not significantly hasten or otherwise increase the pressure for owners to convert adjacent agricultural land to non-agricultural uses. Rather, the systemic pressures that are causing agricultural uses to relocate to other parts of the State from the Perris Valley are driven by long-term economic pressures. The City's 1991 and 2005 General Plans reflect this economic reality. Many of these economic factors are addressed in the report titled "Economic Viability of Agriculture, Perris Valley." CBRE Consulting, March 2009, which is hereby incorporated and which is discussed in further detail below. As set forth in the CBRE report, "[a]gricultural production will decline in the Perris Valley due to economic factors that are entirely independent of the local land use designation applicable to the site." Thus, the project itself will not hasten the conversion of any lands from agricultural uses to covert to other uses. In the absence of a significant impact, no mitigation is required.

4.2.4.6 Conversion of Locally Important Farmland

Threshold	Would the proposed project involve changes in the existing environment which, due to their location or nature, could result in the conversion of Locally Important Farmland to non-agricultural use?

Riverside County has established a program through which it classifies various land within the County as Locally Important Farmland. While the County has established criteria by which Locally Important Farmland is categorized, some if not much of the land that has been designated as Locally Important Farmland has been so designated due to the historical use of the land.

The factors used by he County to define Locally Important Farmland are as follows:

- Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
- Lands planted with dryland crops of barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
- Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
- Lands planted to jojoba which are under cultivation and are of producing age.

None of the above factors supports designating the property to be utilized by the proposed project as Locally Important Farmland. Based on conversations with County Staff, it is likely that the property to be utilized by the proposed project was designated as Locally Important Farmland based on agricultural uses that existed on site several decades ago. As an example, the County's maps have not been updated to reflect the City's 1991 General Plan removing all agricultural uses from the City.

In addition, the County's designation of property to be utilized by the proposed project as Locally Important Farmland does not take into consideration the fact that the property does not qualify as a significant agricultural resource by virtue of the low LESA scores discussed above. The low LESA scores demonstrate that the County's designation of the property to be utilized by the proposed project as Locally Important Farmland is not consistent with the true resources value of the property. For example, one factor weighed to determine the LESA score is the Storie Index, which numerically expresses (on a scale from 0 to 100) the relative degree of suitability of a soil for general intensive agriculture. When establishing a Storie Index, the following factors are considered: the characteristics of the soil profile and depth, the texture of surface soil, and the dominant slope of the soil body. A fourth factor may consider drainage, flooding, salinity, general nutrient level, and other physical or chemical attributes of the soil. Each factor is evaluated on the basis of 100 percent.

Table 4.2.G: Storie Index Grade by Site

Site	Grade 1 (80–100)	Grade 2 (60–79)	Grade 3 (40–59)	Grade 4 (20–39)	Grade 5 (10–19)	Grade 6 (0–9)
Phase 1	4.77	5.50	27.92	—	—	—
Phase 2	22.36	6.25	127.70	6.26	—	1.86
Phase 3	—	10.13	89.18	12.04	—	108.02
Total (acres)	**27.13**	**21.88**	**244.80**	**18.30**	—	**109.88**
	6.4%	**5.2%**	**58.0%**	**4.3%**	—	**26.0%**

Notes:
Grade 1: Soils have few or no limitations that restrict their use for crops.
Grade 2: Soils are suitable for most crops, but have minor limitations that narrow the choice of crops and have special needs.
Grade 3: Soils are suited to a few crops or to special crops that require special management.
Grade 4: Soils are severely limited for crops. If used for agriculture, crops require careful management.
Grade 5: Soils are generally not suited for crops but can be used fro pasture and range.
Grade 6: Soils are generally not suited to farming.

Source: Soil Survey Western Riverside County Area California, United States Department of Agriculture, November 1971.

Over half of the soils within the project limits have characteristics that would limit their agricultural potential (Grade 3), while nearly one-third possess soil characteristics that are not suited for farming (Grade 6) or would severely limit crop production (Grade 4). Furthermore, the long-term preservation of agricultural uses is not identified as an objective in the City's General Plan.

In addition, as set forth in the CBRE report, agriculture is not economically viable in the Perris Valley for a number of reasons that are largely independent of the land use decisions of the local agency. The factors that affect the long-term viability of agriculture in the City and project area include:

- *Land Value:* The value of raw land is determined by a variety of factors including location, intended uses, the presence/absence of infrastructure, existing land use, existing land use entitlements, and physical and environmental constraints. As the value of raw land increases, it becomes increasingly difficult for property owners to collect sufficient payments from either the sale of crops or rents/lease payments collected from tenant farmers to offset the cost of maintaining the property.
- *Water Costs:* The cost for water is a major component in determining the viability of agricultural operations. Water cost paid by farmers in the South Coast Hydrologic Area ranged from $400 to $550 per acre-foot in 2000.[1] This is one of the highest water costs for agricultural operations in the state.
- *Labor Costs:* The supply of farm labor available to local farmers continues to decrease as the amount, extent, and type of farming activities in the City and County changes. This condition is compounded by the proliferation of logistic employment, service sector jobs, and other

[1] California Water Plan Update 2005, California Department of Water Resources.

employment opportunities in the City and County, which provide employment alternatives to farm labor. The lower cost of farm labor in other parts of the state (as well lower minimum wage requirements in markets outside California) contributes to the competitive disadvantage faced by local growers.

- *Property Taxes:* None of the property within or immediately adjacent to the study area is enrolled in a Williamson Act contract; therefore, property taxes in these areas would likely be assessed at a higher rate than enrolled land. In areas where raw land is highly valued, a higher property assessment would make it increasingly difficult to continue economically viable agricultural production.
- *Urbanization:* The proximity of new development to existing agricultural areas will increasingly generate land use conflicts between the different uses. Conflicts may include nuisance complaints (e.g., odors, dust, and flies), increased noise, pesticide/fertilizer application, trespass, and forced changes in the type and/or timing of existing agricultural operations.
- *Competition:* Agricultural operations are likely to shift from areas of that have higher production costs (e.g., land, water, and labor) to areas with lower production costs. An example of this is the relocation of many dairying operations from the Chino area of San Bernardino County to southern Kern County. Additionally, agricultural commodities from foreign markets, which have even lower production costs and are unburdened by some of the state's regulatory requirements, provide additional competition to the local farmers.
- *Environmental Regulation:* The regulation of agricultural activities is an increasingly significant cost that must be considered when assessing the feasibility of agricultural production in the County. Regulations governing the control of sediment and runoff from agricultural fields, generation of fugitive dust, and application of pesticides and other agricultural products, may require changes in existing agricultural operations that would increase production costs. Agricultural production outside the State may not be so heavily burdened with such regulations, which would provide a competitive advantage in agricultural markets.

While the project sites have been designated Locally Important Farmland, due to the on-site soil characteristics as demonstrated by the low LESA scores, the local land use and planning designations of the sites, and the economic and regulatory hurdles facing local farmers, the continued viability or intensification of agricultural uses within the project limits is not feasible. High-yield or cash crops are not a principal characteristic of Perris' agricultural production or economy. While the Phase 2 and 3 sites have been leased to farmers in the past, no active planting or cultivation has occurred on these sites for at least three years. Use of the project sites for agricultural production does not substantially contribute to the local or regional agricultural economy and is not expected to in the future as demonstrated by the land use designations applicable to the site, the low soil quality and low LESA scores, and due to systemic economic pressures that are at work. Because of the limited productivity of on-site soils, coupled with the lack of substantial on-site agricultural activity and the restrictive factors cited above it, no significant impact associated with the conversion of Locally Important Farmland would result from development of the proposed uses. No mitigation is required.

4.2.5 Significant Impacts

All potential impacts of the proposed project on agricultural resources have been determined to be less than significant. No site-specific significant agricultural resource impact would result from the conversion of the sites to non-agricultural uses.

4.2.6 Cumulative Impacts

The cumulative area for agricultural resource impacts is Riverside County. As detailed in Table 4.2.H, the agricultural acreage inventoried in Riverside County by the FMMP has declined in each of the five

past reporting cycles. Similarly, the total planted acreage in Riverside County has decreased every year over the past five years (Table 4.2.I).

Table 4.2.H: Agricultural Acreage Inventoried (acres)

	Reporting Period				
	2006	**2004**	**2002**	**2000**	**1998**
Riverside County	444,455	466,467	479,278	609,535	636,337

Note: Though designated agricultural land, acreage may not necessarily be planted or otherwise used for agricultural uses.
Source: California Farmland Conversion Summary(ies), California Department of Conservation, 2008.

Table 4.2.I: Planted Acreage (acres)

	Reporting Period				
	2007	**2006**	**2005**	**2004**	**2003**
Riverside County	203,469	205,437	223,848	228,182	260,431

Source: Riverside County Agricultural Production Report, 2007.

While agricultural land is a finite resource, the City, through its designation of the sites for non-agricultural uses in its 1991 and 1995 General Plans has previously considered that continuing development pressures in the City and region would result in the conversion of agricultural land to non-agricultural uses. The value of agricultural crops produced in the County during 2007 totaled $1.257 billion. The limited nature of the existing agricultural activity does not significantly contribute to the overall economic viability of the City or County. The utilization of the property sites for low quality agricultural activity would impede the City from achieving the goals and objectives set forth in its General Plan. Among the objectives cited in the City's General Plan are:

- Provide for balance in the types and acreages of land uses necessary for people to live, work, play and shop;
- Accommodate new development consistent with infrastructure capacity and municipal services capabilities;
- Attract commerce and industry to provide jobs for residents at all economic levels; and
- Facilitate upgrading of existing infrastructure including master storm drain improvements.

The City has recognized (as evidenced in its General Plan Land Use Element and the absence of agricultural preservation mitigation program) that the eventual conversion of agricultural uses within the City would occur and is in fact planned for.

As stated in the discussion of Impact 4.2.4.6 above, the viable continuation of any agricultural operations on site is not likely.

Further, the previous sections of this EIR have demonstrated that the utilization of the project sites for the proposed uses does not create a significant agricultural impact. For these same reasons, the utilization of the project sites for the proposed uses does not create any significant cumulative agricultural impacts since the individual impacts of the project are less than significant and the project would not hasten or otherwise increase the pressure for owners beyond the City of Perris to convert to non-agricultural uses. Therefore no mitigation is required.

4.3 AIR QUALITY

This section analyzes the proposed project's potential air quality and global climate change impacts and provides a discussion of the proposed project, the physical setting of the project area, and the air quality and global climate change regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction and soil import as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data and project trip generation included in the project's *Traffic Impact Analysis* and peak turn volumes generated for the proposed project combined with emission factors from the California Air Resources Board (CARB) EMFAC2007 program. The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies in the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* (SCAQMD 1993). Air quality data posted by the ARB and the U.S. Environmental Protection Agency (EPA) web sites are included to document the local air quality environment and are incorporated herein by reference.

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Air Quality Impact Analysis* (URS Corporation, August 2009) contained in Appendix C-1 of this EIR;
- *Greenhouse Gas Analysis* (URS Corporation, February 9, 2009) contained in Appendix C-2 of this EIR;
- *Health Risk Assessment* (URS Corporation, August 2009) contained in Appendix C-3 of this EIR;,
- *Traffic Impact Analysis, South Perris Industrial Distribution Center,* (Urban Crossroads, April 2009) contained in Appendix J-1 of this EIR;
- First Industrial South Perris Site - Soil Import Traffic Assessment, (Urban Crossroads, March 19, 2009). Contained in Appendix J-3 of this EIR; and
- First Park South Perris Site – Soil Import Air Quality Assessment, (Urban Crossroads, March 19, 2009). Contained in Appendix C-4 of this EIR.

In addition to these project specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *California's Water Energy Relationship*, California Energy Commission, November 2005;
- *CEQA Air Quality Handbook,* South Coast Air Quality Management District, 1993;
- City of Perris General Plan 2030 Draft EIR, October 2004;
- *Conservation Element*, City of Perris General Plan, adopted July 12, 2005;
- *Climate Action Team Proposed Early Actions to Mitigate Climate Change in California (Draft)*, California Environmental Protection Agency Climate Action Team, April 20, 2007;
- *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, California Environmental Protection Agency, March 2006;
- *EPA420-P-04-016: Update of Methane and Nitrous Oxide Emission Factors for On-Highway Vehicles*. U.S. Environmental Protection Agency, prepared by ICF Consulting. November 2004;
- *Final 2007 Air Quality Management Plan,* South Coast Air Quality Management District, June 1, 2007;
- *Nonresidential Compliance Manual for California's 2005 Energy Efficiency Standards*, California Energy Commission, April 2005;

- *Proposed Early Actions to Mitigate Climate Change in California,* California Air Resources Board, April 20, 2007;
- *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*, California Air Resources Board, October, 2007;
- *CEQA and Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, California Air Pollution Control Officers Association, January 2008;
- *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*, Governor's Office of Planning and Research, Technical Advisory, June 19, 2008;
- *Governor's Office of Planning and Research (OPR) Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions And Public Workshop Announcement,* January 8, 2009, Governor's Office of Planning and Research;
- *Governor's Office of Planning and Research Proposed SB97 CEQA Guidelines Amendments to the Natural Resources Agency,* April 13, 2009, Governor's Office of Planning and Research;
- Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act, CARB Preliminary Draft Staff Proposal, California Air Resources Board, October 24, 2008;
- More Than 650 International Scientists Dissent Over Man-Made Global Warming Claims, United States Senate Minority Report, December 11, 2008; and
- Various Superior Court Decisions, as cited herein.

4.3.1 Existing Setting

The project site is located in the southeastern portion of the City of Perris, in western Riverside County, California. Perris is located in the South Coast Air Basin (Basin), a geographic area that encompasses the coastal plain and connecting broad inland valleys and low hills. The Pacific Ocean forms the southwestern border of the Basin, with mountain ranges forming the remainder of the border. The Basin includes all of Orange County and the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. The Basin is under the jurisdiction of the SCAQMD.

4.3.1.1 Climate and Meteorology

Air quality in the project area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, and amount of sunshine. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States combine to give the Basin one of the worst air pollution problems in the nation. Please see the *Air Quality Impact Analysis* contained in Appendix C-1 for a further discussion of climate and meteorology.

During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen (NO_X), because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog such as ozone (O_3).

4.3.1.2 Regional Air Quality

Both the State of California and the Federal government have established health-based ambient air quality standards (AAQS) for six criteria air pollutants. These pollutants include O_3, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the population.

The narrative below describes the pollutant characteristics, mechanisms of pollutant origination, and health effects for the criteria pollutants (i.e. pollutants specifically regulated under the Federal Clean Air Act and/or the California Clean Air Act) and other pollutants of concern health effects of criteria pollutants. The health effects described below will not occur unless the standards are exceeded by a large margin or for a prolonged period of time.

- *Carbon Monoxide*
    - Description and Properties: CO is colorless, odorless toxic gas produce by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO is a primary pollutant, meaning it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions support the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrated the CO (EPA 2006c). Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.
    - Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attached hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body's organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.
    - Sources: The major sources of CO are on-road vehicles, aircraft, and off-road equipment, or any source that burns fuel including residential heaters and stoves. Since most of the CO sources are the indirect result of urban development, most emissions and unhealthy CO levels occur in major urban areas.
- *Ozone*
    - Description and Physical Properties: O_3 is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between reactive organic gases (ROG), NO_X, and sunlight. ROG and NO_X are emitted from automobiles, solvents and fuel combustion, the sources of which are widespread throughout the SCAQMD. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions conducive to the formation of ozone include extended periods of daylight (solar radiation) and hot temperatures. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest qualities. During the summer, thermal inversions trap ozone from dispersing vertically, high concentrations of this pollutant are prevalent.
    - Health Effects: Health Effects of ozone can include the following: respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation, and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes,

and outdoor workers. Ozone also damages natural ecosystems such as forests, foothill communities, and damages agricultural crops and some man-made materials such as rubber, paint, and plastics.

- o Sources: Ozone is a secondary pollutant, thus is not emitted directly in the lower level of the atmosphere. The sources of ozone precursors (ROG and NO_X) are discussed above in the description of ozone.

- *Oxides of Nitrogen*
  - o Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). Atmospheric deposition of NO_X occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. NO_X is also an ozone precursor. When NO_X and ROG are released in the atmosphere, they can also be a precursor to PM_{10} and $PM_{2.5}$.
  - o Health Effects: The EPA has concluded that the only form of NO_X that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2) (EPA 1997). Nitrogen dioxide is a brown gas with a strong odor. NO_X can react with moisture, ammonia, and other compounds to form nitric acid and related particles. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease (EPA 2005b). Because NO_X is an ozone precursor, the health effects associated with ozone are also indirect health effects associated with unhealthful levels of NO_X emissions.
  - o Sources: A major source of NO_X includes stationary source fuel combustion (i.e. manufacturing and industrial, food and agricultural processing, and service commercial). Additionally, NO_X emission sources include motor vehicles internal combustion engines and electric utility and industrial boilers powered by fossil fuel combustion. Natural sources of NO_X include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_X for the United States. On-road vehicles also contribute to NO_X emissions.

- *Sulfur Dioxide*
  - o Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater that 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide (SO_3). The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. Historically, sulfur dioxide was a pollutant of concern. However, with the successful application of regulations at the State and local level, the levels of sulfur dioxide have been reduced dramatically in the past several decades. The CARB, the State regulatory agency charged with regulating air pollution in the State, demonstrates that sulfur dioxide levels in the State are well below the maximum standards (CARB 2006b, Page 107, 408, and 409). Although sulfur dioxide concentration have been reduced to levels well below State and Federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}. Sulfates are a particular formed through the photochemical oxidation of sulfur dioxide.
  - o Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur

dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath (EPA 2000).

- Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide.

- *Lead*
  - Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Even though lead gasoline has been phased out in most countries, some still use leaded gasoline. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.
  - Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.
  - Sources: Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, soil waste disposal, and crustal physical weathering.

- *Particulate Matter (PM_{10} and $PM_{2.5}$)*
  - Description and Physical Properties: Particular matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmosphere particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided up into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated the smaller-sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as a micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in a diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds (e.g., fugitive dust).
  - Health Effects: Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health effect includes reduced visibility and soiling of property.
  - Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include: fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands;

waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. Secondary particulate matter is formed in the atmosphere through chemical reactions that can involve ROG, SO_X, NO_X, and ammonia.

- *Diesel Particulate Matter*
  - Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide (EPA 2002). Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. DPM includes the particles-phase constituents in diesel exhaust. Organic compounds account for 80 percent of the total particulate matter mass, which is comprised of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. 15 PAHs are confirmed for carcinogenicity, a number of which are found in diesel exhaust (NTP 2005b). The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002).
  - Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002).
  - Cancer Health Effects: Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure (NTP 2005b).
  - Sources: Diesel exhaust.
- *Visibility Reducing Particles*
  - Description and Physical Properties: Visibility reducing particles (VRPs) are suspended particulate matter that reduces visibility. Visibility is the distance through the air that can be seen without the use of instrumental assistance. The distance that can be seen is limited by the amount of gases and aerosol particles in the way. The EPA implemented a Regional Haze Rule in 1999 to attempt to protect visibility in 156 national parks and wilderness areas in the Unites States. The regulation requires states to establish goals for improving their areas and to work together with other states as the pollution is often transported over long distances (EPA 1999).
  - Health Effects: The human health effects of VRPs are those of pollution (particulate matter, oxides of nitrogen, and sulfur dioxide) discussed above.
  - Sources: The sources are other pollutants (particulate matter, oxides of nitrogen, and sulfur dioxide) as discussed above.
- *Vinyl Chloride*
  - Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethylene and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial

breakdown of chlorinated solvents. In 1978, CARB established a State ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.

- Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches (CARB 2005). Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.
- Sources: Manufacturing of PVC plastic and vinyl products.

- *Hydrogen Sulfide*
  - Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.
  - Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.
  - Sources: Hydrogen sulfide and other reduced sulfur compounds form by the anaerobic decomposition of manure some types of bacteria found in animal and human by-products produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.
- *Reactive Organic Gases*
  - Description and Physical Properties: Reactive organic gases (ROG), or volatile organic compounds (VOCs), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.
  - It should be noted that there are no State or Federal ambient air quality standard for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemicals reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
  - Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of ROG are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system (EPA 2005). There are many ROGs that have been classified as toxic air contaminates. A particular ROG of concern is benzene, which is described in more detail below. EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and includes VOCs, pesticides, herbicides, and radionuclides (EPA 2006d).
  - Sources: The major sources of ROG are on-road motor vehicles and solvent evaporation.

- *Benzene*
  - Description and Physical Properties: Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The U.S. EPA has classified benzene as a "Group A" carcinogen.
  - Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high dose by inhalation has caused blood disorders, including aplastic anemia and lower levels or red blood cells (EPA 1992). Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia) (NTP 2005). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia (NTP 2005).
  - Sources: Benzene is emitted into the air from gasoline services station (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also manufactured of detergents, explosives, dyestuffs, and pharmaceuticals.

Table 4.3.A provides details about the above-listed pollutants.

The CARB coordinates and oversees both State and Federal air pollution control programs in California. The CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. The CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. The CARB and EPA use the data collected at monitoring stations to classify air basins as attainment, nonattainment, nonattainment transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions, as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table 4.3.B identifies the attainment status[1] for the criteria pollutants in the Basin. The State AAQS are more stringent than the Federal AAQS.

4.3.1.3 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring stations (Figure 4.3.1) closest to the site are the Perris, Riverside-Rubidoux, and Metropolitan Riverside (Magnolia) stations. The air quality trends from these monitoring stations are representative of the ambient air quality in the project area. Data for O_3 and PM_{10} were obtained from the Perris station located approximately 1 mile northwest of the project site. Data for CO and $PM_{2.5}$ were obtained from the Riverside-Rubidoux station located approximately 19.0 miles northwest of the project site. Data for NO_2 were obtained from the Metropolitan Riverside (Magnolia) station located approximately 15.6 miles northwest of the project site. Data for SO_2 were not included because attainment is regularly met in the Basin for this criteria pollutant. The Riverside-Rubidoux and Metropolitan Riverside (Magnolia) monitoring stations were utilized in lieu of the Perris monitoring station only where data were not available.

Table 4.3.C identifies that NO_2 and CO levels are below the relevant State and Federal standards in the project vicinity, while O_3, PM_{10}, and $PM_{2.5}$ often exceed State and/or Federal standards.

[1] Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment; Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period. Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.

Table 4.3.A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]			Notes
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]	
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	1 California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1 and 24 hour); nitrogen dioxide; suspended particulate matter, PM_{10}; and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
	8-Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)[8]			2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current Federal policies.
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m^3		—			
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3			
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)	3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25˚C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25˚C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.03 ppm (56 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence	4 Any equivalent procedure that can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
	1-Hour	0.18 ppm (470 µg/m^3)		—			5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)	6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	—		7 Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.
	3-Hour	—		—	0.5 ppm (1,300 µg/m^3)		8 New Federal eight-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current Federal policies.
	1-Hour	0.25 ppm (655 µg/m^3)		—	—		9 The California Air Resources Board has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
Lead[9] (Pb)	30-Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard		
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards			
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography				
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence				
Vinyl Chloride[9]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography				

Source: California Air Resources Board (June 26, 2008).

Table 4.3.B: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Extreme Nonattainment	Revoked June 2005
O_3 8-hour	Not Established	Severe-17 Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

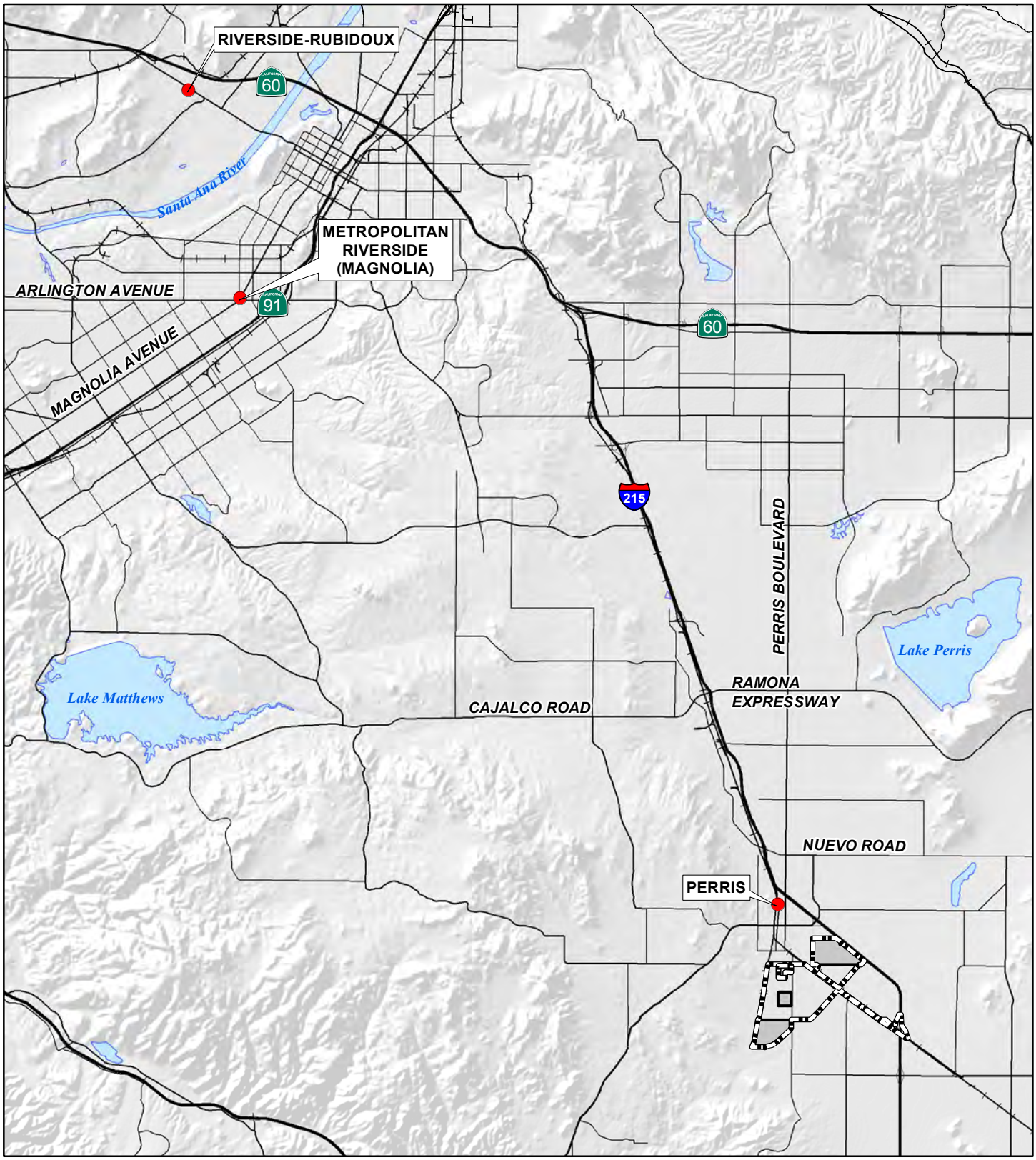
Source: CARB Web site: www.arb.ca.gov/desig/desig.htm, 2007.

Table 4.3.C: Ambient Air Quality at the Perris, Riverside-Rubidoux, and the Metropolitan Riverside (Magnolia) Air Monitoring Stations

State and Federal Standards	One-Hour Carbon Monoxide[B]		One-Hour Ozone[A]		Coarse Suspended Particulate (PM_{10})[A]		Nitrogen Dioxide[C]	
	Max. 1-Hour Conc. (ppm[D])	Number of Days Exceeded	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m^3$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded
State Standards	> 20 ppm/1 hr		> 0.09 ppm/1 hr		> 50 $\mu g/m^3$, 24 hrs		> 0.25 ppm/1 hr	
2008	*	*	0.142	65	85	8	0.09	0
2007	4	0	0.139	66	120	32	0.07	0
2006	4	0	0.170	76	125	19	0.08	0
2005	3	0	0.126	11	80	19	0.08	0
Maximum	**4**		**0.170**		**125**		**0.09**	
Federal Standards	> 35 ppm/1 hr		> 0.12 ppm/1 hr		> 150 $\mu g/m^3$, 24 hrs		0.053 ppm, annual avg	
2008	*	*	0.142	4	85	0	0.09	0
2007	4	0	0.139	4	120	0	0.07	0
2006	4	0	0.170	12	125	0	0.08	0
2005	3	0	0.126	1	80	0	0.08	0
Maximum	**4**		**0.170**		**125**		**0.09**	

State and Federal Standards	Eight-Hour Carbon Monoxide[B]		Eight-Hour Ozone[A]		Fine Suspended Particulate ($PM_{2.5}$)[B]		Sulfur Dioxide	
	Max. 8-Hour Conc. (ppm)	Number of Days Exceeded	Max. 8-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded
State Standards	9.0 ppm/8 hrs		0.07 ppm/8hrs		No State Standard		> 0.04 ppm/24 hrs	
2008	1.9	0	0.115	94	53.3	N/A	N/A	N/A
2007	2.9	0	0.116	88	75.7	N/A	N/A	N/A
2006	2.3	0	0.122	84	68.5	N/A	N/A	N/A
2005	2.6	0	0.103	18	98.7	N/A	N/A	N/A
Maximum	**3.0**		**0.122**		**98.7**		N/A	
Federal Standards	9.0 ppm/8 hrs		> 0.08 ppm/8 hrs		> 65 $\mu g/m^3$, 24 hrs		0.03 ppm, annual avg	
2008	1.9	0	0.115	77	53.3	*	N/A	N/A
2007	2.9	0	0.116	73	75.7	33	N/A	N/A
2006	2.3	0	0.122	53	68.5	9	N/A	N/A
2005	2.6	0	0.103	3	98.7	4	N/A	N/A
Maximum	**3.0**		**0.122**		**98.7**		N/A	

[A] Monitored at the Perris station.
[B] Monitored at the Metropolitan Riverside (Magnolia) station.
[C] Monitored at the Riverside-Rubidoux station.
[D] ppm = parts per million.
Source: Data taken from the SCAQMD Web site; others taken from California Air Resources Board Web site.



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FIGURE 4.3.1

PROJECT AREA

PROJECT SITES

AIR MONITORING LOCATION

NAME

South Perris Industrial
Environmental Impact Report

Air Quality Monitoring Stations

SOURCE: USGS DEM; Thomas Bros, 2007; Air Resources Board, 2005

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4.3.1.4 Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses that are sensitive to air pollutants. The nearest existing sensitive receptors in the vicinity of the project site are a residence located approximately adjacent to the east of the Phase 1 site and one residence located approximately 650 feet south of Phase 1; residences adjacent and north of the Phase 2 site, across Mapes Road; and one residence and The Academy community day school adjacent and west of the Phase 3 site. Figure 4.3.2 identifies the 20 sensitive receptors to the proposed project site and considered in the analyses.

4.3.1.5 Global Climate Change

Global climate change refers to alterations in weather features that occur across the Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases often referred to as greenhouse gases (GHG), including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which some scientists believe is causing global warming. While man-made GHGs including CO_2, methane, and nitrous oxide occur in the atmosphere from natural sources, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere. Global climate change attributable to anthropogenic (human) emissions of greenhouse gases (primarily CO_2, CH_4, N_2O, and fluorinated gases) is currently one of the most important and widely debated scientific, economic, and political issues in the United States. However, there is continuous debate in the scientific community on this issue, and some scientists have disputed the notion that human activities are responsible for the changes in the earth's temperature. (See, e.g., United States Senate Minority Report.)

Greenhouse gases have varying global warming potential (GWP). GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question (e.g., N_2O and CH_4) to that of the same mass of carbon dioxide. CO_2 is considered to be a reference gas with a GWP of 1 and is the baseline unit with which all other greenhouse gases are compared. The other main greenhouse gases that have been attributed to human activity—methane and nitrous oxides—have GWPs of 21 and 310 teragrams[1] of carbon dioxide equivalent (Tg CO_2 Eq.), respectively.

4.3.1.5.1 A Comparison of California's Goal of Reducing GHG Emissions with Projected GHG Increases in the Developing World

According to a forecast by the California Air Resources Board, if no actions are taken to reduce GHG emissions, California emissions would be approximately 596.4 million metric tons, carbon dioxide equivalent ($MMTCO_2e$) by the year 2020, up from approximately 427 $MMTCO_2e$ and an average of 468.8 $MMTCO_2e$ between 2002 and 2004 (Draft California 2020 GHG Emissions Forecast, available at http://www.arb.ca.gov/cc/inventory/data/ forecast.htm). Consequently, if the State is successful in reducing GHG emissions to 1990 levels by 2020 (as required by the California Global Warming Solutions Act of 2002 [AB 32]), emissions will be reduced by approximately 169.4 $MMTCO_2e$, compared to what they would be under a "business as usual" scenario (*Id*; Staff Report, California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, November 16, 2007, p. 27).

Importantly, these savings may not be enough to compensate for the expected increase in emissions in developing countries during the same period alone. For example, according to projections from the

[1] One teragram is equal to one million metric tons.

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FIGURE 4.3.2

PROJECT SITES
PROJECT AREA
SENSITIVE RECEPTORS

0 1,000 2,000
FEET

SOURCE:AirPhotoUSA, 2008; Thomas Bros., 2007.

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South Perris Industrial
Environmental Impact Report

Sensitive Receptors

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Energy Information Administration, carbon emissions from Brazil alone are expected to increase from 216 MMT in 1990 and 356 MMT in 2005 to 541 MMT in 2020 (i.e. they will have increased by 325 MMT between 1990 and 2020, nearly double the amount of emissions which will be saved by the implementation of AB 32 [International Energy Outlook 2008, p. 113, Table A10, World Carbon Dioxide Emissions by Region, Reference Case, 1990-2030]). Even that increase, however, is insignificant compared to the 7,234 MMT projected increase in China's 2020 carbon emissions during the same period of time (2,241 MMT in 1990 versus 9,475 in 2020) or even the 1,253 MMT projected increase in India's carbon emissions (565 MMT in 1990 versus 1,818 MMT in 2020) (*Id*). Consequently, it is clear that any steps taken to reduce GHG emissions in California may be ineffective, unless similar steps to reduce emissions are taken in developing countries. As of the present date, none of the developing countries identified above have taken any steps to reduce or cap their GHG emissions.

4.3.1.5.2 The Requirement to Analyze GHG Emissions and Impacts in CEQA Documents

Currently, there is no effective statutory requirement that a CEQA document analyze a project's impacts on GHG and/or global warming. Effective January 1, 2008, the Legislature enacted Public Resources Code section 21097, which provides that the failure to analyze GHG emissions in a CEQA document for specified transportation and flooding projects does not create a cause of action under CEQA even though such emissions are otherwise required to be reduced by AB 32. Also enacted concurrently with Public Resources Code section 21097, was Public Resources Code section 21083.05, which requires that the Governor's Office of Planning and Research shall prepare draft amended guidelines by July 2009 for the mitigation of GHG, and shall provide such amended guidelines to the Natural Resources Agency, which shall adopt them by January 2010. Draft OPR amended guidelines were submitted to the Natural Resources Agency on April 13, 2009, and the Natural Resources Agency has begun the rulemaking process to certify and adopt the amendments.

Thus, at the present time, there is no statute or regulation that requires an analysis of GHG in an environmental document prepared under CEQA; clearly, however, the regulatory trend is to require such an analysis. The California Attorney General and other interest groups in the State have stated their belief (and have in fact requested and brought suit as part of such requests) that GHG emission issues be analyzed in environmental documents. The trial courts are currently split on the issue of whether environmental assessments prepared pursuant to CEQA must contain an analysis of GHG emissions and related issues. In the following cases, the trial courts held that EIRs that contained no discussion of GHG issues were nevertheless valid: *Highland Springs Conf. Ctr. v. City of Banning* (2008) Riverside Sup. Ct.; *Center for Biological Diversity v. City of Perris* (2008) Riverside Sup. Ct.; *Westfield v. City of Arcadia* (2008), Los Angeles Sup. Ct. In fact, the Arcadia Court held that the EIR challenged in that case was not required to contain either a project-direct or a cumulative analysis of the challenged projects' contributions to global warming. In another case, the trial court held that an EIR was invalid because it contained no discussion of climate change. Still, in a more recent case, a project-specific EIR was invalidated due to a court's determination that the climate change analysis was inadequate.

Even though there is no currently effective rule statute or appellate case that requires that an EIR contain an analysis of GHG emissions, this EIR will nevertheless contain such an analysis utilizing the analytical approaches set forth in the Governor's Office of Planning Research's paper entitled "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review" and other publications including the recent Draft OPR guidelines. Importantly, the issue of how to analyze GHG emissions in CEQA documents has been constantly evolving over the past several years. At the present time, the consensus appears to be that a single project alone cannot contribute to global warming, but that a single project's emissions may or may not be cumulatively considerable (given the global nature of the issue). The analytical approach taken in this EIR is consistent with the analytical approach suggested by most publications and draft regulatory guidance.

Refer to Section 4.3.2.1.3 (State Regulation of Climate Change) for a detailed description of the CARB's potential approach to analyzing GHG emissions.

Effects of Global Climate Change. Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution. Table 4.3.D lists greenhouse gases, the effects of each greenhouse gas, and sources for each of the greenhouse gases.

Additionally, according to the 2006 California Climate Action Team (CAT) Report,[1] the following climate change effects, which are based on trends established by the United Nations Intergovernmental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply;
- Increasing temperatures from 8 to 10.4 degrees Fahrenheit under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas;
- Increased vulnerability of forests due to forest fires, pest infestation and increased temperatures;
- Increased electricity demand, particularly in the hot summer months; and
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

See the *Greenhouse Gas Analysis* contained in Appendix C-2 for further discussion of global climate change.

4.3.2 Existing Policies and Regulations

4.3.2.1 Climate Change

4.3.2.1.1 International Regulation of Climate Change

In 1988, the United Nations created the Intergovernmental Panel on Climate Change (IPCC) to provide independent scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report, which concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperature is *very likely* due to the observed increase in anthropogenic GHG concentrations."

In 1992, 154 nations, including the United States, entered into the United Nations Framework Convention on Climate Change (UNFCCC), a nonbinding agreement under which industrialized countries pledged to work to reduce greenhouse gas (GHG) emissions. Five years later, in 1997, the

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

Table 4.3.D: Greenhouse Gas Properties, Effects, and Sources

Constituent	Description and Physical Properties	Health Effects	Sources
Water Vapor	Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization.	There are no health effects from water vapor. When some pollutants come in contact with water vapor, they can dissolve and then the water vapor can be a transport mechanism to enter the human body.	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.
Carbon Dioxide	Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas.	Outdoor levels of carbon dioxide are not high enough to result in negative health effects.	Carbon dioxide is emitted from natural and anthropocentric (human) sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Methane	Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10–12 years) compared to other greenhouse gases.	There are no health effects from methane.	Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.
Nitrous Oxide	Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas.	Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses it is harmless. In some cases, heavy and extended use can cause Olney's Lesions (brain damage). There are no known health effects at ambient atmospheric concentrations.	Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 ppb. Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars.
Chloro-fluorocarbons	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface).	In confirmed indoor locations, working with CFC-113 or other CFCs is thought to have resulted in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation. There are no known health effects at ambient atmospheric concentrations.	CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CECs will remain in the atmosphere for over 100 years.
Hydro-flurocarbons	Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant.	None.	HFCs are man made for applications such as automobile air conditioners and refrigerants.
Per-fluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6).	None.	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990's were about 4 ppt.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. There are no known health effects at ambient atmospheric concentrations.	Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
Aerosols	Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols.	Similar health effects associated with particulate matter.	Sulfate aerosols are emitted when fuel containing sulfur is burned. Another source of aerosols (in the form of black carbon or soot) is the result of incomplete combustion or the incomplete burning of fossil fuels. Although particulate matter regulation has been lowering aerosol concentrations in the United States, global concentrations are likely increasing as a result of other sources around the world.

Source: LSA Associates, January 2008

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parties to the UNFCCC adopted the Kyoto Protocol, which set binding GHG reduction targets for 37 industrialized countries and the European Community, with the objective of reducing their collective emissions by 5 percent below 1990 levels during the "commitment period" of 2008–2012. The Kyoto Protocol has been ratified by 182 countries, but has not been ratified by the United States. In 1995, the Senate passed the Byrd-Hagel Resolution by a 95–0 vote, stating the Senate's belief that the United States should not enter into any protocol that did not set binding targets for developing, as well as industrialized, nations.

Many of the industrialized countries which ratified the Kyoto Protocol have not and/or are not expected to meet their Kyoto targets. For example, Canada, which currently has emissions that are 30 percent above 1990 levels, announced last year that it would not be able to meet its obligations under Kyoto. Instead, Canada intents to focus on "the development and implementation of a Made-in-Canada plan for reducing greenhouse gases" which it says "will be effective, realistic and focus on achieving sustained reductions in emissions in Canada while ensuring a strong economy." (http://www.ec.gc.ca/climate/home-e.html.) Likewise, Japan has not indicated it will not comply with its targets, but as of 2005, its emissions were approximately 8 percent higher than in 1990 (http://www.npr.org/templates/story/story.php?storyId= 14087783).

Moreover, since the United States declined to ratify the Kyoto Protocol in 1995, it has become increasingly clear that global climate change cannot be addressed without limiting GHG emissions from developing, as well as developed, countries. According to many sources, China has already surpassed the United States as the world's largest GHG emitter and is building new coal-fired power plants at a rate of approximately one per week. A recent study conducted by economists at the University of California (UC) Berkeley and UC San Diego estimated that China's CO_2 emissions are growing by as much as 11 percent annually. In 2007, China released its first nation plan on climate change, which includes goals related to increasing energy efficiency and increasing use of renewable resources (http://news.bbc.co.uk/2/hi/asia-pacific/6717671.stm; http://www.guardian.co.uk/world/2007/jun/04/china.jonathanwatts). The plan, however, makes no commitments regarding reduction of GHG emissions.

Like China, India is already one of the top emitters of GHGs and continues to grow rapidly. India has recently pledged to take more action to fight global warming, for example, by pursuing solar energy, urging energy efficiency, and conservation, but it has not set any concrete goals in these areas, let alone pledged to reduce its carbon emissions. To the contrary, India's emissions are projected to increase fourfold by 2030 (see "Melting Asia," *The Economist*, June 5, 2008). Similarly, Brazil, the largest economy in South America, and another rapidly developing country, has no national policy requiring it to reduce carbon emissions. Brazil's carbon emissions increased by more than 60 percent between 1990 and 2004, and are projected to continue to rise at a similar pace (See International Energy Agency, World Energy Outlook 2006).

The Kyoto Protocol is set to expire in 2012. Formal negotiations to replace the protocol officially began in December 2007 at the UNFCCC Climate Change Conference in Bali, Indonesia (http://unfccc.int/2860.php). Whether a workable agreement can be reached, however, remains to be seen, as the United States continues to press for an agreement which requires firm commitments from developing nations, and countries like China and India continue to oppose binding targets (see http://news.bbc.co.uk/2/hi/science/nature/7145608.stm).

4.3.2.1.2 Federal Regulation of Climate Change

The Federal government has taken a number of steps toward addressing global climate change over the past 30 years, but thus far, such actions have been mostly policy oriented, with very little substance. In 1978, Congress enacted the National Climate Program Act, which required an investigation into climate change. In 1987, Congress enacted the Global Climate Protection Act for the purpose of "establish[ing] a national climate program that will assist the Nation and the world to

understand and respond to natural and man-induced climate processes and their implications" (15 USC § 2902). The act required the establishment of various programs to further climate change research (15 USC § 2904(d)).

Nonetheless, despite the fact that climate change has been on the Federal government's radar for 30 years, to date, Congress has not enacted any legislation requiring economy-wide mandatory reductions in GHG emissions. Several different "cap-and-trade" proposals, which would require such reductions, have recently been introduced in Congress, but none of them have yet been passed by either branch of Congress, let alone become law. All such plans would place caps on the total amount of GHG which can be emitted during future years, and allow emitters to buy and sell emission credits. However, such plans vary widely on what caps they would place on emissions and how quickly such caps would come into effect, as well as how their specific mechanisms would work (See Pew Center on Global Climate Change Chart on Economy-wide Cap-and-Trade Proposals in the 110th Congress).

Although the Federal government has taken a number of steps toward addressing global climate change over the past 30 years, such actions have been mostly policy oriented, with very little substance. Currently, the Federal government's policy on climate change has three objectives: 1) "Slowing the growth of emissions"; 2) "Strengthening science, technology and institutions"; and 3) "Enhancing international cooperation," which it is implementing "through voluntary and incentive-based programs" (http://www.epa.gov/climatechange/policy/index.html).

4.3.2.1.3 State Regulation of Climate Change

There have been several key pieces of State legislation and executive orders addressing greenhouse gas emissions and global climate change. These are discussed as follows, although a more in-depth discussion is contained in the *Greenhouse Gas Analysis* contained in Appendix C-2.

Assembly Bill 4420 (AB 4420). The State of California has been studying the impacts of climate change since 1988, when AB 4420 was approved. This legislation directed the California Energy Commission (CEC), in consultation with the CARB and other agencies, to study the implications of global warming on California's environment, economy, and water supply. The CEC was also directed to prepare and maintain the State's inventory of GHG emissions.

Assembly Bill 1493 (AB 1493). In 2002, Governor Grey Davis signed AB 1493 which required the CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the State." Recently, the new President Obama administration stated its intent to grant the State of California a waiver from Federal Clean Air Act requirements in order to allow California to implement the proposed regulation of GHG emissions from vehicle/mobile source tailpipes, The implementation of this legislation would be truly monumental insofar as it would allow California to regulate one of the chief sources of GHG emissions in the form of tailpipe emissions.

Executive Order S-3-05. Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total greenhouse gas emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Assembly Bill 32 (AB 32). In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 directs the CARB to implement regulations for a cap on sources or categories of sources of GHG emissions. The bill requires that the CARB develop regulations to reduce emissions with an enforcement mechanism to ensure that the reductions are achieved, and to disclose how it arrives at the cap. It also includes conditions to ensure businesses and consumers are not unfairly affected by reductions.

AB 32 requires the CARB to:

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

AB 32 codifies Executive Order S-3-05's[1] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be implemented no later than January 1, 2012. To effectively implement the cap, AB 32 directs the CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels.

CEQA guidelines provide that thresholds of significance can be qualitative, quantitative, or in the form of performance standards. On October 24, 2008, CARB released draft significance guidelines for commercial and industrial development that are currently in public review. It is unknown at this time whether or not the significance criteria proposed by CARB will be modified based on receipt of public comments. Consequently, it is unclear what changes will be made to the CEQA guidelines in terms of significance criteria. CARB's objective is to develop a threshold of significance that will result in the vast majority (~90% statewide) of the greenhouse gas (GHG) emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. CARB believes this can be accomplished with a threshold that allows small projects to be considered insignificant. Using existing data for the industrial sector, the proposed CARB threshold consists of a quantitative threshold of 7,000 metric tons of CO_2 equivalent per year ($MTCO_2e$/year) for operational emissions (excluding transportation), and performance standards for construction and transportation emissions.

The goal of this effort is to provide for the mitigation of GHG emissions from industrial projects on a statewide level. Over time, implementation of AB 32 will reduce or mitigate GHG emissions from industrial sources. Once such requirements are in place, they could become the performance standard for industrial projects for CEQA purposes. CARB intends to pursue this approach in conjunction with development of the regulatory requirements for industrial sources in the Proposed AB 32 Scoping Plan. CARB is proposing the use of a quantitative significance threshold at least until such time that performance standards, such AB 32 regulatory requirements, are in place to ensure mitigation of significant impacts of GHG emissions from projects in the industrial sector.

Senate Bill 1368 (SB 1368). In September 2006, Governor Arnold Schwarzenegger signed Senate Bill 1368, which calls for the adoption of a GHG performance standard for in-State and imported

[1] Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

electricity generators to mitigate climate change. On January 25, 2007, the California Public Utilities Commission adopted an interim GHG emissions performance standard. This standard is a facility-based emissions performance standard requiring all new long-term commitments for baseload generation to serve California consumers with power plants that have emissions no greater than a combined cycle gas turbine plant (hereafter, "EPS"). The established level is 1,100 pounds of CO_2 per megawatt-hour. In essence, SB 1368 requires the three investor-owned California utilities to ensure that any out-of-state power the utilities purchase utilizing long-term contracts comply with the EPS. The EPS is designed to essentially prevent California from receiving out of State power from even the most efficient coal-fired plants. The purpose of the statute is prevent the State from "backsliding" as the State works to achieve AB 32 goals. Stating his support for SB 1368 and the Public Utilities Commission's regulations to implement SB 1368, Governor Schwarzenegger has stated as follows: "[SB 1368 … sends a clear signal to developers of dirty coal throughout the West that we're not interested in their product. We've made a commitment in this state to clean up our environment and that commitment extends to what we buy from other states" (California Energy Markets, January 26, 2007, No. 909, page 15).

Senate Bill 97 (SB 97). Senate Bill 97 was approved on August 25, 2007, to address GHG analysis under CEQA. This legislation mandates that the Office of Planning and Research (OPR) prepare and submit guidelines to the California Resource Agency (CRA) for the mitigation of GHG emissions and their effects by July 1, 2009, and their adoption by January 1, 2010. This legislation does not provide for any guidance for non-exempted projects in the interim period between the passage of SB 97 and the adoption of guidelines by the OPR.

Based on SB 97, OPR has released draft changes to the CEQA guidelines. Public comments to the draft guidelines were received by OPR up until January 26, 2009. The proposed changes to the guidelines included new questions in Appendix G regarding Greenhouse Gas Emissions and major changes to the Transportation/Traffic checklist questions (Appendix A-3, Draft CEQA Guidelines changes).

The preliminary draft regulatory language proposed by OPR is consistent with the authority granted by CEQA and with CEQA case law. Because this language is intended to clarify and make specific existing State law, it must be consistent with existing statutes and regulations, and must meet the requirements of the Administrative Procedures Act (APA). OPR has attempted to make the preliminary draft Guideline amendments consistent with the existing CEQA framework for environmental analysis, including but not limited to the determination of baseline conditions, determination of significance, and evaluation of mitigation measures. For these reasons, OPR does not identify a threshold of significance for greenhouse gas emissions, nor have they prescribed assessment methodologies or specific mitigation measures. The preliminary draft amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The preliminary draft amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Refer to the *Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions* (April 2009) for a detailed description of OPR's proposed added or amended sections to the *CEQA Guidelines.*

Senate Bill 375. SB 375 was signed into law on October 1, 2008. SB 375 provides emissions-reduction goals around which regions can plan, integrating disjointed planning activities, and provides incentives for local governments and developers to follow new conscientiously planned growth patterns.

4.3.2.1.4 Regional Regulation of Climate Change

As stated above, in 2009, SB 375 will take effect. In essence, SB 375 requires regional municipal planning organizations to develop regional land use plans that demonstrate how the regions will achieve compliance with the GHG reduction goals of AB 32. Cities located within these regions are then required, in turn, to update their General Plans in accordance with the regional plans. Non-compliance with SB 375 will result in transportation funds being withheld from the regional and/or local agency.

4.3.2.2 Clean Air Act

4.3.2.2.1 Federal Clean Air Act (CAA)

Pursuant to the Federal CAA of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 15, 2004.

4.3.2.2.2 Mulford-Carrell Act

The State first set California Ambient Air Quality Standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Originally, there were no attainment deadlines for CAAQS; however, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The EPA has designated the SCAG as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the Clean Air Act (CAA) for the Basin.

4.3.2.3 Energy Regulations

4.3.2.3.1 Federal Energy Regulations

Energy Policy and Conservation Act. The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for

new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the Environmental Protection Agency (EPA), was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

4.3.2.3.2 State Energy Regulations

California Code of Regulations Title 24, Part 6. Energy Efficiency Standards. Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that Californian residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional $43 billion in energy savings.

In 2005, the CEC adopted new energy efficiency standards. All projects that apply for a building permit on or after October 2005 must adhere to the 2005 standards. A copy of the 2005 Energy Efficiency Standards are not included in the appendices to this DEIR, but may be reviewed on-line at www.energy.ca.gov/title24/2005standards/index/html. The 2005 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, CA 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the practice throughout the State that compliance with Title 24 (as well as compliance with the litany of Federal and State regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while at the same time ensure that the efficient and non-wasteful consumption of energy is ensured through design features. (Conversation with CEC Staff, January 2007.) Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F to the *CEQA Guidelines*. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally only required for large scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is

deemed to ensure that no significant impacts occur with respect to the inefficient, wasteful, and unnecessary consumption of energy. (Conversation with CEC Staff, January 2007.) As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2005 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 479 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 8.9 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 143 GWh/y of electricity savings and 0.5 million therms. Additional savings result from the application of the Standards on building alterations. In particular, requirements for cool roofs, lighting, and air distribution ducts are expected to save about 175 GWh/y of electricity. These savings are cumulative, doubling in two years, tripling in three, etc.

Table 4.3.E: Electricity Savings Related to the 2005 Standards

Nonresidential	2001 Standard (GWh)	2005 Standard (GWh)	Savings (GWh)	Percent Reduction
Lighting	861.6	777.5	84.1	9.8
Heating	38.8	36.9	1.9	4.9
Cooling	537.5	501.5	35.9	6.7
Fans	424.7	403.6	21.1	5.0
Total	**1,862.6**	**1,719.5**	**143.0**	**7.7**

Source: CEC Impact Analysis 2005 Update to the California Energy Efficiency Standards, 2003.

Since the California 2000/2001 electricity crisis, the CEC has placed more emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand (for newly constructed residential and nonresidential buildings) by about 110.3 megawatts (MW) each year. Newly constructed nonresidential buildings account for 44 MW of these savings. Like energy savings, demand savings accumulate each year. The 2005 Standards are expected to reduce electric demand by another 180 MW each year.

Table 4.3.F: Demand Savings Related to the 2005 Standards

Nonresidential	2001 Standard (MW)	2005 Standard (MW)	Savings (MW)	Percent Reduction
Lighting	157.9	142.6	15.3	9.7
Heating	3.6	3.5	0.1	2.2
Cooling	276.7	253.1	23.6	8.5
Fans	79.7	74.6	5.0	6.3
Total	**517.9**	**473.9**	**44.0**	**8.5**

Source: CEC Impact Analysis 2005 Update to the California Energy Efficiency Standards, 2003.

In many parts of the world, the wasteful and poorly-managed use of energy has led to oil spills, acid rain, smog, and other forms of environmental pollution that have ruined the natural beauty people seek to enjoy. California is not immune to these problems, but the CEC-adopted appliance standards, building standards, and utility programs that promote efficiency and conservation have gone a long way to maintaining and improving environmental quality. Other benefits include reduced destruction of natural habitats, which in turn helps protect animals, plants, and natural systems.

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more that it did two centuries ago. Carbon dioxide and other greenhouse gasses create an insulating layer around the earth that leads to global climate change. CEC research shows that most of the sectors of the State economy face significant risk from climate change including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gasses. While adding scrubbers to power plants and catalytic converters to cars is step in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be effective actions to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently in accordance with Title 24 Energy Efficiency standards is a proven, far-reaching strategy that can and does an important contribution to the significant reduction of greenhouse gasses.

In fact, the National Academy of Sciences has urged the country to follow California's lead on such efforts, and has recommended that nation-wide energy efficiency building codes modeled after Title 24 be adopted. The CEC's Title 24 program has played a vital and perhaps one of the most important roles in maximizing energy efficiency and preventing the wasteful, inefficient, and unnecessary use of energy throughout the State.

The 2005 Energy Efficiency Standards include the following:

- *Time Dependent Valuation (TDV).* Source energy was replaced with TDV energy. TDV energy values energy savings greater during periods of likely peak demand, such as hot summer weekday afternoons, and values energy savings less during off peak periods. TDV gives more credit to measures such as daylighting and thermal energy storage that are more effective during peak periods.
- *New Federal Standards.* Coincident with the 2005 Standards, new standards for water heaters and air conditions took effect. These changes affect all residential buildings but also affect many nonresidential buildings that use water heaters and/or "residential size" air conditioners.
- *New Lighting in Historic Buildings.* The exception to the Standards requirements for historic buildings has changed relative to lighting requirements so that only those historic or historic replica components are exempt.
- *Cool Roofs.* The nonresidential prescriptive standards require "cool roofs" (high reflectance, high emittance roof surfaces, or exceptionally high reflectance and low emittance surfaces) in all low-slope applications. The cool roof requirements also apply to roof replacements for existing buildings.
- *Acceptance Requirements.* Basic "building commissioning," at least on a component basis, is required for electrical and mechanical equipment that is prone to improper installation.
- *Demand Control Ventilation.* Controls that measure CO_2 concentrations and vary outside air ventilation are required for spaces such as conference rooms, dining rooms, lounges, and gyms.
- *T-bar Ceilings.* Placing insulation directly over suspended ceilings is not permitted as a means of compliance, except for limited applications.
- *Relocatable Public School Buildings.* Special compliance approaches are added for relocatables so they can be moved anywhere statewide.
- *Duct Efficiency.* R-8 duct insulation and duct sealing with field verification is required for ducts in unconditioned spaces in new buildings. Duct sealing is also required in existing buildings when the air conditioner is replaced. Performance method may be used to substitute a high efficiency air conditioner in lieu of duct sealing.

- *Indoor Lighting.* The lighting power limits for indoor lighting are reduced in response to advances in lighting technology.
- *Skylights for Daylighting in Buildings.* The prescriptive standards require that skylights with controls to shut off the electric lights are required for the top story of large, open spaces (spaces larger than 25,000 feet with ceilings higher than 15 feet).
- *Thermal Breaks for Metal Building Roofs.* Continuous insulation or thermal blocks at the supports are required for metal building roofs.
- *Efficient Space Conditioning Systems.* A number of measures are required that improve the efficiency of HVAC systems, including variable speed drives for fan and pump motors greater than 10 hp, electronically-commutated motors for series fan boxes, better controls, efficient cooling towers, and water cooled chillers for large systems.
- *Unconditioned Buildings.* New lighting standards—lighting controls and power limits—apply to unconditioned buildings, including warehouses and parking garages. Lighting power tradeoffs are not permitted between conditioned and unconditioned spaces.
- *Compliance Credits.* Procedures are added for gas cooling, underfloor ventilation.
- *Lighting Power Limits.* The Standards set limits on the power that can be used for outdoor lighting applications such as parking lots, driveways, pedestrian areas, sales canopies, and car lots. The limits vary by lighting zones or ambient lighting levels. Lighting power tradeoffs are not permitted between outdoor lighting and indoor lighting.
- *Shielding.* Luminaires in hardscape areas larger than 175 W are required to be cutoff luminaires, which will save energy by reducing glare.
- *Bi-level Controls.* In some areas, outdoor lighting controls are required, including the capability to reduce lighting levels to 50 percent.
- *Lighting Power Limits.* Lighting power limits (or alternative equipment efficiency requirements) apply to externally and internally illuminated signs either indoors or outdoors.

The 2008 Building Energy Efficiency Standards were adopted by the California Energy Commission on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008. The 2008 rulemaking process has been completed and the effective date for the 2008 new standards is January 1, 2010.

The Energy Commission adopted the 2008 changes to the standards for a number of compelling reasons including:

- To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.
- To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.
- To pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- To act on the findings of California's Integrated Energy Policy Report (IEPR) 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.
- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.

- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The 2005 Energy Efficiency Standards include the following for residential and nonresidential buildings:

- Update TDV to measure savings from energy efficiency standards at times of peak.
- Revisions to 10-105 to clarify roles and responsibilities of State agencies for enforcement of the standards, 10-113 to clarify requirements for low-sloped and steep-sloped roofs and CRRC rating requirements, and 10-114 to require local ordinance for using security multipliers for outdoor lighting.
- Revisions and clarifications to Section 118, Mandatory Requirements for Insulation and Roofing Products, including introduction of Solar Reflectance Index (SRI) for cool roof compliance.
- Revisions and clarifications to Section 119, Mandatory Requirements for Lighting Control Devices.
- Changes to Joint Appendix JA4 for wall, roof, and floor assemblies.
- Reorganizing the Joint Appendices into the Reference Appendices, creating the Residential and Nonresidential Appendices, migrating relevant sections from the ACM Manuals into the Reference Appendices.

The 2005 Energy Efficiency Standards include the following for nonresidential buildings:

- Revisions and clarification to Sections 130-134, Mandatory Requirements for Lighting Systems and Equipment related to Luminaire Power determination, sign lighting controls, and other clarifications.
- Updates for compliance to require side-lighting (§131) and day-lit areas near windows, change definition of daylit area and requirements for daylighting controls. Update skylight requirements to include smaller buildings (8,000 sf vs 25,000 sf), buildings with 15-foot ceiling heights (§143(c)).
- Add requirements for occupant sensors in new indoor areas including small offices, multipurpose rooms less than 1,000 sf, classrooms, and conference rooms (§132(d)).
- Revising the Lighting Power Densities (LPDs) for Complete Building Method Type of Use categories and Area Category Function Areas for indoor lighting (§146).
- Update indoor lighting requirements for Tailored Method, including wall and floor display lighting, and revised LPDs based on metal halide (§146).
- Compliance credit for high efficacy load shedding ballasts to reduce energy use when signaled (§146).
- Demand response controls to reduce indoor lighting when signaled (§146).
- Revise the outdoor lighting compliance procedure and update outdoor lighting power densities, require outdoor lighting to meet Title 24 standards when alterations replace 30 percent of fixtures (§147).
- Update sign mandatory and prescriptive requirements (§148).
- Add acceptance requirements for outdoor lighting and update existing acceptance requirements for indoor lighting (NA7).
- Changes to site-built fenestration requirements including NFRC new Component Method Approach certification and CEC default values in Section 116 and NA6.

- New fenestration acceptance verification requirements for nonresidential building envelope (NA7).
- Revised Cool Roof requirements for low-slope roofs and add prescriptive Cool Roof requirements for steep-sloped roofs (§143).
- Revised roof, wall, and floor insulation requirements, establish field verification and protocols for spray foams and acceptance requirements (§143) Summary of 2008 Building Energy Efficiency Standards Changes.
- Revised overall building envelope method to combine heating and cooling and to provide simplified trade-offs for roofing alterations (§143(b)).
- Refine acceptance testing requirements to ensure HVAC works properly, allow compliance credit for automatic fault detection diagnostic systems (NA7).
- New controls requirements for single-zone variable (adjustable) air volume equipment (§122).
- New envelope, lighting, and mechanical requirements for refrigerated warehouses (§126).
- Expand direct digital control systems to zone level for HVAC systems, including demand shedding controls, hydronic pressure reset, VAV zone minimums, demand control ventilation, and supply air temperature reset (§121).
- New Requirement for Hotel/Motel occupancies to use residential water heating models (§145).
- Prescriptive requirement for gas water heating in nonresidential buildings (§145).
- Refinements to additions and alterations requirements for nonresidential buildings (§149).

4.3.2.4 Air Quality Management Regulations

Lewis Air Quality Management Act. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The Federal Clean Air Act Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the State.

The CARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan (AQMP). The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. The SCAQMD and SCAG must update the AQMP every three years. The current regional air quality plan is the Final 2007 Air Quality Management Plan (AQMP) adopted by the SCAQMD on June 1, 2007.

The Final 2007 AQMP proposes attainment demonstration of the Federal $PM_{2.5}$ standards through a more focused control of sulfur oxides (SO_X), directly-emitted $PM_{2.5}$, and nitrogen oxides (NO_X) supplemented with volatile organic compounds (VOC) by 2015. The 8-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024 assuming a bump-up[1] is obtained.

[1] A "bump-up" is a voluntary reclassification of a nonattainment area to a higher classification allowing for an extension of an attainment deadline.

The Final 2007 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve Federal standards for healthful air quality in the Basin and those portions of the Salton Sea Air Basin that are under District jurisdiction. This Final Plan also addresses several Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. This Final Plan builds upon the approaches taken in the 2003 AQMP for the Basin for the attainment of the Federal ozone air quality standard.[1] The Basin is currently a Federal and State nonattainment area for PM_{10}, $PM_{2.5}$, and ozone.

4.3.2.5 Diesel Regulations

Recently, the Ports of Long Beach and Los Angeles and the CARB have adopted new regulations aimed at reducing the amount of diesel particulate. These new programs are the Ports of Los Angeles and Long Beach "Clean Truck Program,[2] the CARB Drayage Truck Regulation,[3] and the CARB statewide On-road Truck and Bus Regulation.[4] Each of these regulatory programs will require an accelerated introduction of "clean trucks" into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe.

These new emission control programs will result in substantially lower diesel particulate matter (DPM) emissions in the future compared to emissions currently estimated for large trucks using the CARB's Emission Factor (EMFAC) model[5]. Therefore, diesel emissions identified in this EIR substantially overstate future particulate emissions from diesel engines as cleaner engines required by law in the near future will be substantially cleaner than those existing in current fleets. Considering the 70-year time period over which cancer risk exposure is typically estimated for conforming residential uses, applying the average heavy-duty diesel truck diesel particulate matter emissions fleet emission rate over a 70-year period using data available from the three emission control programs identified above is estimated to reduce cancer risk by 50 percent. Figure 4.3.3 compares the estimated DPM emissions from the new emission control programs and the current estimated DPM emissions based on the CARB's EMFAC model.

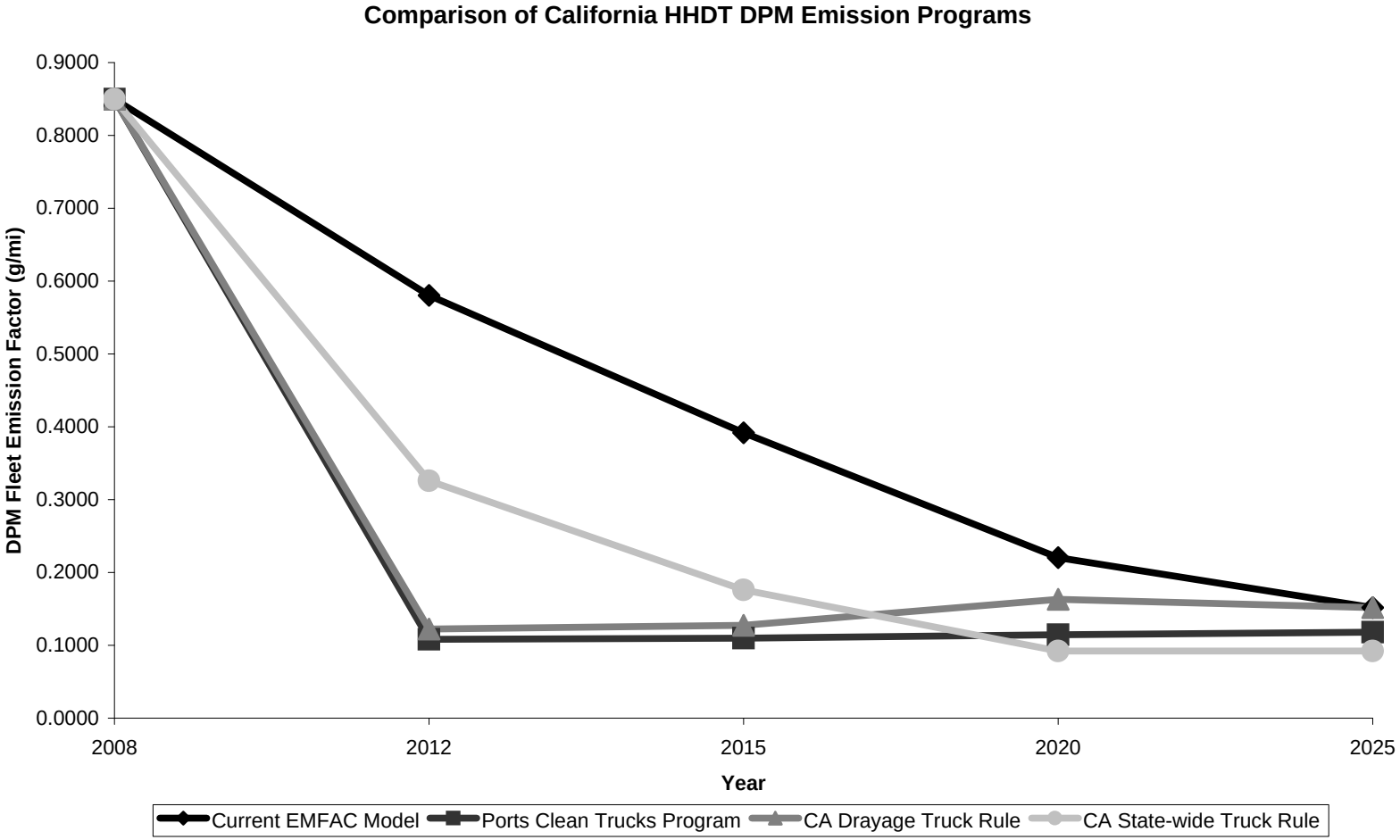
4.3.2.6 City of Perris General Plan Policies

Local jurisdictions, such as the City of Perris, have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Perris is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts, and monitors and enforces implementation of such mitigation. In accordance with CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet Federal and State standards. Instead, the City relies on the expertise of the SCAQMD, and its review of plans and development proposals within its jurisdiction.

The General Plan defines goals and policies related to air quality within the City of Perris. The specific policies of the General Plan that are relevant to the proposed project are as follows:

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1 *Final 2007 Air Quality Management Plan,* South Coast Air Quality Management District, June 1, 2007.
2 http://www1.cleanairactionplan.org/strategies/cleantrucks/default.asp
3 http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm
4 http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm
5 EMFAC is the CARB's mobile source emissions model which is the approved methodology for estimating mobile source emissions in California.



LSA

FIGURE 4.3.3

South Perris Industrial
Environmental Impact Report
Comparison of California HHDT DPM Emission Programs

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Circulation Element

Policy I.D Encourage and support the development of projects that facilitate and enhance the use of alternative modes of transportation.

Measure VII.A.4 Control dust and mitigate other environmental impacts during all stages of roadway construction consistent with air quality regulations and mitigation measures established in environmental documents.

City Climate Change Policies. While there are currently no City regulations regarding GHG emissions, the City has identified specific goals, policies, and implementation measures related to greenhouse gases and climate change within the *Sustainable Community* section of the *Conservation Element* of the General Plan. Goals, policies, and implementation measures that are applicable to the proposed project are as follows:

Conservation Element – Sustainable Community Section

Goal I Create a vision for energy and resource conservation and the use of green building design of the City, which provides for protection of the environment, improving quality of life, and promoting sustainability.

Policy I.A Adopt and maintain development regulations that encourage water and resource conservation.

Implementation Measures

I.A.1 Use indigenous and/or drought-resistant planting materials and efficient irrigation systems in residential projects as a means of reducing water demand, including smart irrigation systems.

I.A.2 Use indigenous and/or drought-resistant planting and efficient irrigation systems with smart controls in all new refurbished commercial and industrial development projects. Also, restrict use of turf to 25 percent or less of the landscaped areas.

I.A.3 Use water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.

I.A.4 Use gray water, and water conserving appliances and fixtures within all new commercial and industrial developments.

I.A.5 Use permeable paving materials within developments to deter water runoff and promote natural filtering of precipitation and irrigation waters.

I.A.7 Create and maintain reclaimed water systems to provide reclaimed water for irrigation of municipal and commercial landscaping.

I.A.8 Explore the use of private water well systems for all potable and/or landscaping water use for larger commercial and industrial projects.

Policy I.B Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.

Implementation Measures

I.B.1 Initiate and maintain incentive programs to encourage and reward developments that employ energy and resource conservation and green building practices similar to the City's current recycling program.

I.B.3 Require the installation of recycling bins and provide space for storage and collection of recyclables within development sites.

I.B.4 Use educational forums and public relation programs to inform residents of the full range of recycling techniques available.

I.B.5 Establish a procurement policy favoring recycling materials.

Goal II Encourage project designs that support the use of alternative transportation facilities.

Policy II.A Encourage land uses and new development that support alternatives to the single occupant vehicle.

Implementation Measures

II.A.1 Encourage installation of shared vehicle parking and support facilities within new and refurbished commercial and industrial developments, i.e., dual fuel vehicles and charging systems on site, car pool parking, and bus stop shelters.

II.A.2 Install bicycle paths and create secure and accessible bicycle storage for visitors and occupants within new and refurbished commercial and industrial developments.

II.A.4 Encourage building and site designs that facilitate pedestrian activity, such as locating buildings close to the street and providing direct connections to public walkways and neighboring land uses.

II.A.5 The City shall require all new public and private development to include bike and walking paths wherever feasible.

Goal III Encourage improved energy performance standards above and beyond the California Title 24 requirements.

Policy III.A Establish density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who exceed current Title 24 requirements for new development.

Implementation Measures

III.A.2 Encourage energy conservation devices including but not limited to lighting, water heater treatments, solar energy systems, etc. for all residential projects.

Policy III.B Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.

Implementation Measures

III.B.1 Explore the benefits of an urban forestry program such as Tree City USA, to capitalize on the environmental, social, aesthetic, and economic benefits of trees in the urban environment.

III.B.3 Provide educational materials to residents about the value of trees in the environment and encourage the planting of trees and tree care.

Policy III.C Encourage strategic shape and placement of new structures within new commercial and industrial projects.

Implementation Measures

III.C.1 Explore the benefits of an urban forestry program such as Tree City USA, to capitalize on the environmental, social, aesthetic, and economic benefits of trees in the urban environment.

III.C.2 When possible, locate driveways and parking on the east and north sides of buildings to reduce heat buildup during hot afternoons.

4.3.3 Methodology

Evaluation of air quality impacts associated with the proposed industrial warehouse project includes the following:

- Determine the short-term construction air quality impacts including the impacts associated with the import of fill material for the Phase 2 site based on SCAQMD emissions thresholds;
- Determine the long-term air quality impacts, including vehicular traffic and railroad traffic emissions, on both on-site and off-site air quality sensitive uses based on SCAQMD emissions thresholds; and
- Determine the required mitigation measures to reduce short-term and long-term on-site air quality impacts from all sources.

Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on-site as well as local traffic due to the equipment delivery and the transport of imported soil, construction worker commuting, and demolition material removal. The SCAQMD CEQA methodology was used to analyze the criteria pollutant emissions from these activities.

Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the proposed project. The URBEMIS 2007 model was used to predict these project-related long-term impacts.

The project's GHG emissions during construction and mobile sources during project operation were estimated by using the URBEMIS 2007 computer model (Version 9.4.2). However, URBEMIS does not estimate the project's emissions from electricity use. Therefore, the project's GHG emissions from electricity use were calculated using the methodology and assumptions contained in the California Air Pollution Control Officers Association (CAPCOA) Guidance document and California Climate Action Registry's (CCAR) emission factors for electricity generated for use in California. The project's GHG emissions from on-site equipment were estimated using the emission factors for off-road equipment found on the SCAQMD's website.

Given the global scope of global climate change, the challenge under CEQA is for a Lead Agency to distill the issue down to the level of a CEQA document for a specific project in a way that is meaningful to the decision-making process. Global warming and greenhouse gases are an emerging environmental concern being raised on statewide, national, and global levels. Regional, state, federal, and international agencies are developing strategies to control pollutant emissions that contribute to global warming. Although regulatory agencies at the state and regional level are in the process of developing thresholds and methodologies to assess global warming and greenhouse gases on a site-specific basis, neither CEQA nor the *CEQA Guidelines* currently provides a methodology for analysis of greenhouse gases, including CO_2, nor do they provide any significance thresholds. Although there currently is no established methodology or thresholds to determine a project's impact related to greenhouse gases, the City is aware of the public policy rationale underlying AB 32 and SB 97. Therefore, to the extent feasible, the proposed project's impacts related to GHG emissions have been analyzed based on comparing the project's consistency with the strategies contained in the California Climate Action Team's report to the Governor, the California Air Resources Board's Early Action Measures, and various guidelines published by the Attorney General's Office.

4.3.3.1 Infrastructure Improvements

The total project area, defined for the purposes of this EIR as the three development sites plus the area incorporating the proposed infrastructure improvements, encompasses an area bounded by Ellis Avenue and 7th Street to the north, Watson Street and Mapes Road to the south, I-215 and the San Jacinto River to the east, and A Street and Redlands Avenue to the west. The proposed project will

include roadway infrastructure improvements that will accommodate project circulation needs as identified in the project's *Traffic Impact Analysis*. In select cases, additional roadways or roadway sections may be improved to benefit other development and the overall community. This group of improvements, as well as the funding mechanism by which they will be constructed, will be detailed in a separate Development Agreement with the City. The proposed project may construct improvements to Goetz Road, Ellis Avenue, Mountain Avenue, A Street, Mapes Road, and Case Road in addition to the installation of associated water, recycled water, drainage, brine line, and sewer infrastructure for the three sites. Emissions resulting from infrastructure improvements (including the extension of the rail spur to the Phase 2 site) are accounted for in the construction emissions analysis, localized construction emissions analysis, and health risk assessment. The roadway and utility infrastructure improvements would not generate operational emissions once construction of the improvements are completed (i.e., the operation of roadways and pipelines do not release long-term emissions). During project operations, these roadway and infrastructure improvements within the project area would not expose people to air pollutants. Operational impacts would be less than significant and no mitigation is required. However, the extension of the rail spur to the Phase 2 site is included in the operational emissions analysis and the localized operational emissions analysis. Rail activity as a result of the project would emit pollutants during operation and is therefore accounted for in the analysis.

4.3.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to air quality. Based on these significance thresholds, potential impacts to air quality could be considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any ambient air quality standards;
- Contribute substantially to an existing air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or,
- Create objectionable odors affecting a substantial number of people.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* (SCAQMD, April 1993) are used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

4.3.4.1 Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC.
- 100 pounds per day of NO_X.
- 550 pounds per day of CO.

- 150 pounds per day of PM_{10}.
- 55 pounds per day of $PM_{2.5}$.
- 150 pounds per day of SO_X.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA. The SCAQMD also recommends that any construction-related emissions from individual projects that exceed these thresholds be considered cumulatively considerable. These thresholds apply to individual development projects only; they do not apply to the combined emissions generated by a set of cumulative development projects.

4.3.4.2 Thresholds for Operational Emissions

Projects with operation-related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines with respect to CEQA:

- 55 pounds per day of VOC.
- 55 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 55 pounds per day of $PM_{2.5}$.
- 150 pounds per day of SO_X.

The SCAQMD also recommends that any operational-related emissions from individual projects that exceed these thresholds be considered cumulatively considerable. These thresholds apply to individual development projects only; they do not apply to the combined emissions generated by a set of cumulative development projects.

4.3.4.3 Air Pollutant Standards for CO with Localized Effects

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (Table 4.3.A). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 part per million (ppm) or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the proposed project would have a significant CO impact if project emissions result in an exceedance of State or Federal one- or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the proposed project:

- California State one-hour CO standard of 20.0 ppm.
- California State eight-hour CO standard of 9.0 ppm.
- Federal one-hour CO standard of 35.0 ppm.
- Federal eight-hour CO standard of 9.0 ppm.

As identified in Table 4.3.B, the Basin is classified as being in attainment for CO. Data obtained from the Metropolitan Riverside (Magnolia) air monitoring station indicates that over the past three years the area currently does not experience ambient concentrations that are above (or in exceedance of)

the State or Federal CO standards, nor has the area been above the State or Federal CO standards over the past few years (see Table 4.3.C). The Basin was redesignated as being in attainment for CO by the EPA on June 11, 2007. Since the Basin is in attainment and the ambient levels of CO are below State and Federal standards, the proposed project is not anticipated to create an exceedance of standards, and a quantitative CO hotspot analysis is not required.

4.3.4.4 Diesel Exhaust Health Risk Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), "substantial" is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level. If best available control technology for toxics (T-BACT) has been applied, the individual cancer risk to the maximum exposed individual (MEI) must not exceed 10 in 1 million if an impact is to be considered not significant.

The following limits for maximum individual cancer risk (MICR), cancer burden and non-cancer acute and chronic hazard indices (HI) from project emissions of TACs have been established for the Basin:

- **MICR and Cancer Burden.** MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to TACs over a period of 70 years for residential (20 years for non-conforming residential) and 40 years for worker receptor locations. The MICR calculations include multipathway consideration, when applicable. Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million ($1.0 \times 10\text{-}6$) resulting from exposure to TACs.

  Within the project area there are several residential sensitive receptors that are non-conforming residences under the City of Perris 2030 General Plan. These residences are considered sensitive uses as long as people reside in them. Since these residences are relatively old and non-conforming, the City will not allow any improvements that may increase the usefulness or lifespan of the structures. The City assumes that these residences will not be occupied by the end of the 2030 General Plan timeframe. It can be assumed that occupants of these units would only be exposed to project-generated emissions for 20 or fewer years. Therefore, the health risk analysis uses a maximum period of exposure of 20 years for non-conforming residences to provide a more reasonable assessment of the potential cancer risk at these locations.

  The total increase in MICR that is the sum of the calculated MICR values for all TACs emitted from the project will not result in any of the following:

  (A) An increased MICR greater than 10 in 1 million ($1.0 \times 10\text{-}5$) at any receptor location (assumes the project will be constructed with T-BACT); or

  (B) A cancer burden greater than 0.5.

- **Chronic HI.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. The chronic HI calculations include multipathway consideration, when applicable.

  The cumulative increase in total chronic HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.

- **Acute HI.** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level.

The cumulative increase in total acute HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.

4.3.4.5 Localized Significance Thresholds

Localized Significance Thresholds (LSTs) represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The use of LSTs by local government is voluntary, to be implemented at the discretion of the local agencies.

The emissions analyzed under the LST methodology are NO_2, CO, PM_{10} and $PM_{2.5}$. For attainment pollutants, NO_2 and CO, the LSTs are derived using an air quality dispersion model to estimate the emissions per day that would cause or contribute to a violation of any ambient air quality standard for a particular SRA. LSTs for NO_2 and CO are derived by adding the incremental emission impacts from the project activity to the peak background NO_2 and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. The most stringent standard for NO_2 is the 1-hour State standard of 25 parts per hundred million and for CO, it is the 1-hour and 8-hour State standards of 9 parts per million (ppm) and 20 ppm, respectively. For PM_{10} and $PM_{2.5}$, for which the Basin is in non-attainment, the operational LST is derived using an air quality dispersion model to estimate the emissions necessary to make an existing violation in the specific SRA worse, using the allowable change in concentration thresholds approved by the SCAQMD. For PM_{10} and $PM_{2.5}$, the allowable change in concentration thresholds is 2.5 micrograms per cubic meter ($\mu g/m^3$).

According to the SRA/City table on the SCAQMD LST web site,[1] the appropriate SRA is the Perris Valley. The project sites encompass approximately 454.7 acres. The nearest existing sensitive receptors are a residence located adjacent and east of the Phase 1 site and one residence located approximately 650 feet south of Phase 1; residences adjacent to and north of the Phase 2 site, across Mapes Road; and one residence and The Academy community day school adjacent to and west of the Phase 3 site. Refer to Figure 4.3.2 for an illustration of the 20 sensitive receptor locations to the proposed project sites considered in the analyses.

4.3.4.6 Global Climate Change (Greenhouse Gas Emissions) Thresholds

The methodology used in this EIR to analyze the project's potential effect on global warming includes a calculation of GHG emissions. The purpose of calculating the emissions is for informational purposes, as there currently is no quantifiable emissions threshold established by any judicial decision or CEQA regulation or statute as indicated in the public policy rationale underlying AB 32 and SB 97. Although it is possible to generally estimate a project's incremental contribution of CO_2 into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of CO_2 emitted by the project would result in any altered conditions. As an example, scientists from the University of California, San Diego have stated that GHG emissions from California mix with GHG emissions from China in approximately three days (and vice versa). Given the overwhelming scope of global climate change, it is highly unreasonable to speculate that any increase in global temperatures or sea levels could be attributed to the emissions resulting from a single development project, such as is proposed here. For these reasons, it is assumed that project-specific impacts from GHG emissions are less than

[1] www.aqmd.gov/ceqa/handbook/LST/LST.html.

significant. Therefore, this EIR provides an assessment of the project's cumulative impacts associated with GHG emissions and global climate changes.

One way to assess a project's potential impact on global warming is to compare the project with the strategies contained in the California Climate Action Team's report to the Governor and other design features contained in other draft documents published to date including documents published by the California Attorney General. If it is determined that the proposed project is compatible or consistent with the applicable strategies in place to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32, then the project's impact on global warming could be considered less than significant on an individualized basis. Currently, there appears to be consensus that a single project alone cannot have a significant impact on global warming, but that a single project may or may not have a cumulatively considerable impact. In the absence of any other adopted thresholds, the City of Perris is taking a conservative approach and concluding that any general development project that is inconsistent with State or local policies adopted to reduce the amount of GHG emissions associated with new development projects (e.g. the 2006 CAT Report) and/or generates a net increase of gaseous operational emissions (VOC, NO_X, and/or CO) that exceeds the daily regional thresholds of significance recommended by the SCAQMD, would also contribute a considerable amount of GHG emissions to the State-wide cumulative GHG impact.

4.3.5 Less Than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required), or adherence to established regulations, standards and policies would reduce potential impacts to a less than significant level.

4.3.5.1 Air Quality Management Plan Consistency

Threshold	Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

The current regional air quality management plan is the *Final 2007 Air Quality Management Plan* (AQMP) adopted by the SCAQMD on June 1, 2007. The Final 2007 AQMP proposes attainment demonstration of the Federal $PM_{2.5}$ standards through a more focused control of sulfur oxides (SO_X), directly-emitted $PM_{2.5}$, and nitrogen oxides (NO_X) supplemented with volatile organic compounds (VOC) by 2015. The 8-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024 assuming a bump-up[1] is obtained.

The Final 2007 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve Federal standards for healthful air quality in the Basin and those portions of the Salton Sea Air Basin that are under District jurisdiction. This Final Plan also addresses several Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. This Final Plan builds upon the approaches taken in the 2003 AQMP for the Basin for the attainment of the Federal ozone air quality standard.[2] The Basin is currently a Federal and State nonattainment area for PM_{10}, $PM_{2.5}$, and ozone.

To assess the environmental impacts as a result of new development accurately, environmental pollution and population growth are projected by the SCAQMD in the AQMP for future scenarios. The

[1] A "bump-up" is a voluntary reclassification of a nonattainment area to a higher classification allowing for an extension of an attainment deadline.

[2] *Final 2007 Air Quality Management Plan,* South Coast Air Quality Management District, June 1, 2007.

AQMP projections are based, in part, on the growth forecasts and General Plans from cities and counties located in the Basin. As the Growth Management Chapter of the SCAG's Regional Comprehensive Plan and Guide (RCPG) forms the basis of the land use and transportation control portions of the AQMP, projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter are considered consistent with the AQMP growth projections. The entire Phase 3 project site is currently designated "Specific Plan" in the City's General Plan. This land use designation is intended to provide flexibility in the type, intensity, and mix of land uses of residential with non-residential uses. Development of the proposed project would require a General Plan Amendment (GPA) to change the existing land use designation of "Specific Plan" to "General Industrial" for the entire 215.7 acres. An 8-acre portion of the site located at the southeast corner of 7th Street and Redlands Avenue is designated SP-Commercial. A Zone Change within the 8-acre portion of the Phase 3 site from the existing SP-Commercial to General Industrial to accommodate the proposed warehouse distribution uses.

The proposed project envisions the development of warehouse distribution uses on approximately 455 acres. The development scenario proposed is within the scope of what would be allowed under the current General Plan land use designations (General Industrial and Specific Plan) and is consistent with the uses permitted under the proposed General Industrial designation. Because the uses proposed under the proposed project are consistent with the City's General Plan and local and regional plans, it is also considered to be consistent with the AQMP.

Another measurement tool in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT) both within the project and the community in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP. The proposed project site is located in an urbanizing area of the City of Perris in the vicinity of 4th Street, which accommodates public transit service. In addition, the proposed warehouse distribution uses would be within walking distance of existing and planned homes in the local vicinity. The proposed project would add jobs resulting from the development of the industrial uses. This type of development is consistent with the goals of the AQMP for reducing the emissions associated with new development. Based on this information, the proposed project would not impair implementation of the AQMP, and would, therefore, have a less than significant impact on implementation of the AQMP.

A "jobs-to-housing ratio" measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. Since most residents of the region are employed somewhere in the region, the standard used for comparison is the jobs-to-housing ratio of the southern California region. A sub-area of the region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs-poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. The projected 2010 jobs-to-housing ratio for the City, sub-region (Western Riverside Council of Governments [WRCOG]), and region (SCAG) are 1.14, 1.18, and 1.43, respectively. As the projected 2010 the jobs to housing ratio for the City is lower than both the sub-regional and regional ratio, the City is "jobs poor."

The proposed project does not include a residential component; therefore, no significant population growth would result from the development and occupation of the proposed on-site uses than what was accounted for in the development of the 2007 AQMP. Additionally, the development of industrial uses will create jobs in the local economy. The new employment opportunities resulting from development of the proposed warehouse distribution uses will improve the City's current jobs-to-housing ratio by providing jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable that a large percentage of these jobs would be filled by persons already living within the City or project area; therefore, employment projections would remain consistent with regional (SCAG) growth projections and, therefore, consistent with the 2007 AQMP.

The proposed project would accommodate the growth that has been projected for the project vicinity and subregion through the construction of needed infrastructure, thus removing an impediment to growth within the project area. Emissions projections used to establish SCAQMD attainment objectives reflect adopted regional and local land use plans. Therefore, the emissions associated with the proposed project are within the amounts already accounted for in the AQMP, and no significant inconsistency with the AQMP would occur. No mitigation is required.

4.3.5.2 Long-Term Microscale (CO Hotspot) Impacts

Threshold	Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? For CO, the applicable thresholds are: • California State one-hour CO standard of 20.0 ppm; and • California State eight-hour CO standard of 9.0 ppm.

Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed project. Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentration, modeling is recommended to determine a project's effect on local CO levels.

As identified in Table 4.3.B, the Basin is classified as in attainment for CO. Data obtained from the nearest air monitoring station that monitors CO (Metropolitan Riverside [Magnolia] station) indicates that the area around the project site does not currently experience ambient concentrations of CO that are above or in exceedance of the State and Federal CO standards and has not been above the State or Federal standards within the past three years. The Basin was redesignated as being in attainment for CO by the EPA on June 11, 2007. Due to stringent vehicle emissions regulations in place and proposed by the CARB and the EPA, tailpipe emissions of CO are expected to decrease by more than 70 percent by the year 2030 (the General Plan Build out analysis year). Background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Since the Basin is in attainment for CO and ambient levels of CO are below State and Federal standards, the project would not exceed CO standards and a quantitative CO hotspot analysis is not required according to Caltrans' guidance. A less than significant impact would occur and no mitigation is required.

4.3.5.3 Non-Carcinogenic Acute Project-Related Emission Impacts

Threshold	Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses that are sensitive to air pollutants. The nearest existing sensitive receptors in the vicinity of the

project site are a residence located adjacent and east of the Phase 1 site and one residence located approximately 650 feet south of the Phase 2 site; residences adjacent and north of the Phase 2 site; and one residence and The Academy community day school adjacent and west of the Phase 3 site. Refer to Figure 4.3.2 for an illustration of the 20 sensitive receptor locations to the proposed project sites considered in the analyses. This section analyzes health risks on adjacent sensitive receptors as requested in Tom Risher's comment letter on the Notice of Preparation of this EIR.

The health risks are determined by defining the exposure of sensitive receptors, such as homes, schools, hospitals, etc., to toxic air contaminants. Thus, there is a relationship between proximity of the source of the emissions to the sensitive receptor. The nature of the mobile equipment used in construction operations is that they only operate in one location a short time, relative to the length of time required for carcinogenic and chronic health impacts, usually six months or less. The non-cancer health risk analysis considers diesel particulate matter (DPM) project emissions from project trucks, rail service, and on-site equipment. Please refer to Section 4.3.6.6 for a more detailed description of these emission sources.

Health risk calculations for diesel exhaust (both cancer and non-cancer) are based on risk values established by the OEHHA for chronic exposure durations of 24 hours/day for 70 years. Thus, preparing a health risk assessment for construction activity is speculative at best, since sensitive receptors will not be exposed to emissions resulting from construction activity for a significant duration. The SCAQMD acknowledges that currently there is no methodology established for calculating health risks from construction impacts due to the issue established above. Therefore, the SCAQMD does not require preparing a health risk assessment for construction activity.

The operational non-cancer risks can be described as acute (short-term, generally 1-hour peak exposure) or chronic (long-term exposure, defined as 12% of a lifetime or about 8 years for humans). Under the point estimate approach, adverse health effects are evaluated by comparing the annual ground level concentration of each compound with the appropriate Reference Exposure Level (REL). Available REL's promulgated by OEHHA were considered in the assessment. For DPM, there is no value for the acute REL and the chronic REL is 5 $\mu g/m^3$. Therefore, only the chronic non-cancer risks are analyzed in this health risk assessment.

To quantify non-carcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For DPM, exposure only occurs through the inhalation pathway and the only affected target organ is the respiratory system. The equation used to calculate the hazard index from DPM exposure is described in the *Health Risk Assessment*.[1]

Where the hazard index equals or exceeds one, a health hazard is presumed to exist. The hazard index at each discrete receptor location is shown in Table 4.3.G.

Table 4.3.G: Estimation of Hazard Index from Exposure to DPM - Unmitigated

Receptor Location	Receptor Description	2013 Truck Distribution		2030 Truck Distribution	
		C_{air} ($\mu g/m^3$)	Hazard Index	C_{air} ($\mu g/m^3$)	Hazard Index
1	Residential	1.4400	0.288	1.4400	0.288
2	Residential	1.0800	0.216	1.0744	0.215
3	Residential	1.4700	0.294	1.4687	0.294
4	Residential	1.3900	0.278	1.3843	0.277
5	Residential	1.2500	0.250	1.2442	0.249

[1] *Health Risk Assessment, Proposed South Perris Industrial City of Perris,* URS Corporation, August 2009.

Table 4.3.G: Estimation of Hazard Index from Exposure to DPM - Unmitigated

Receptor Location	Receptor Description	2013 Truck Distribution		2030 Truck Distribution	
		C_{air} ($\mu g/m^3$)	Hazard Index	C_{air} ($\mu g/m^3$)	Hazard Index
6	Residential	1.2600	0.252	1.2550	0.251
7	Pinacate Middle School	0.2012	0.040	0.2008	0.040
8	Residential	0.2561	0.051	0.2557	0.051
9	Perris Lake High	0.1685	0.034	0.1683	0.034
10	Residential	0.1947	0.039	0.1954	0.039
11	Residential	0.3171	0.063	0.3131	0.063
12	Residential	0.3282	0.066	0.3254	0.065
13	Residential	1.2400	0.248	1.2359	0.247
14	Residential	0.4394	0.088	0.4382	0.088
15	Residential	0.4082	0.082	0.4070	0.081
16	Residential	0.4453	0.089	0.4432	0.089
17	The Academy High/Day School	0.7504	0.150	0.7499	0.150
18	Perris Elementary School	0.0991	0.020	0.0989	0.020
19	Railway Elementary/Rob Reiner Center School	0.3898	0.078	0.3892	0.078
20	Residential	0.8578	0.172	0.8569	0.171

Source: *Health Risk Assessment Proposed South Perris Industrial, City of Perris, Table 5,* URS Corporation, August 11, 2009.

According to Table 4.3.G, the maximum hazard index for both the 2013 interim truck distribution and the 2030 long-range truck distribution is 0.294, both of which are less than the SCAQMD threshold of 1.0. Therefore, a less than significant impact would occur and no mitigation is required.

The operations expected to occur at these facilities will not emit any toxic chemicals in any significant quantity other than diesel exhaust, which is discussed in detail in Section 4.3.6.6 "Carcinogenic and Chronic Project-Related Impacts." While there will be other toxic substances, such as cleaning agents, personal care products, and landscape pesticides in use on-site, compliance with State and Federal handling regulations will ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents and personal care products is regulated by the 1990 U.S. Clean Air Act Amendments as well as California-adopted regulations for the chemical composition of consumer products. Both regulations restrict the total level of reactive VOCs within a product. The use of landscape pesticides is also heavily regulated through the Department of Pesticide Regulation (DPR),[1] which requires a pest control business maintenance gardener license for any person or business that performs pest control for hire within a commercial park or surrounding structures.[2] Because the use of these substances is heavily regulated, no activity related to the project will emit any toxic air pollutants that have short-term acute health effects. There will be no machinery to emit any toxic air pollutants that have short-term acute health effects; therefore, the potential for short-term acute exposure from project-related toxic emissions will be less than significant and no mitigation is required.

[1] Department of Pesticide Regulation, http://www.cdpr.ca.gov/docs/license/licreq_mg_02-04.htm, web site accessed October 30, 2006.

[2] A "commercial park" is defined by DPR as a tract of land where several commercial establishments (e.g. stores, offices, restaurants, warehouses, factories, etc) are located.

4.3.5.4 Odors

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

During construction, various diesel-powered vehicles and equipment in use on the site would create odors. SCAQMD Rule 402 dictates that air discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust or asphalt odors), the proposed uses do not include uses that are generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt may generate odors, these odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD Rules 1108 and 1113 identify standards regarding the application of asphalt and architectural coatings, respectively.

Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on site would be adequately managed. The nearest existing sensitive receptors are a residence located adjacent and east of the Phase 1 site and one residence located approximately 650 feet south of Phase 1 of the project site; residences adjacent and north of the Phase 2 site; and one residence and The Academy community day school adjacent and west of the Phase 3 site. Refer to Figure 4.3.2 for an illustration of the 20 sensitive receptor locations to the proposed project site considered in the analyses. Based on the project's preliminary site plans, trash enclosures are situated in areas away and screened from sensitive receptors (see Figures 1.2.A, 1.2.B, and 1.2.C) and are not adjacent to residential properties. Due to the distance of the refuse storage areas away from these uses and because solid waste from the project will be managed and collected in a manner to prevent the proliferation of odors, no significant odor impact will occur and no mitigation is required.

4.3.5.5 Phase 2 Soil Import Equipment Emissions

Threshold	Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard? For construction operations, the applicable daily thresholds are: • 75 pounds of VOC; • 100 pounds of NO_X; • 550 pounds of CO; • 150 pounds of PM_{10}; • 55 pounds of $PM_{2.5}$; and • 150 pounds of SO_X.

Soil import activities would result in combustion emissions from heavy-duty construction vehicles, haul trucks, and vehicles transporting the construction crew. Dust and exhaust emissions during these construction activities will vary daily as construction activity levels change. Peak import days typically generate a larger amount of air pollutants than during other project construction days. As suggested in the Notice of Preparation comment letter from Sunwest Enterprise, impacts associated with the import of soil to the Phase 2 site is identified in this section.

The following assumptions for short-term construction emission estimates were used:

- The import of approximately 660,000 cubic yards (cy) of soil to the Phase 2 site will occur over a period of approximately 20 months beginning September/October 2009 and completed no later than June 2011.
- Over the 20 months of import activity an estimated 432 working days will occur. The number of working days have been estimated by taking the number of months multiplied by the average number of working days per month, or 20 months × 21.6 working days per month = 432 total working days. Note the proposed number of working days may be adjusted based on the timing of the proposed project grading activities.
- The proposed import activity is projected to generate approximately 569 passenger car equivalent (PCE) trip-ends per day with 78 PCE trips per hour during the a.m. peak hour.
- The project is estimated to have one sweeper, one dozer, two loaders, and one water truck on site to process soil import.
- It is estimated that the operations for the source material site will contain sufficient construction equipment to facilitate soil loading for export.
- Construction activity is assumed to occur each working day from 7:00 a.m. to 3:30 p.m. with a 30-minute break for lunch.
- Soil will be moved from the export site to the project location via double-belly dump trucks, which are conservatively estimated to have a carrying capacity of 14 cy.

Fugitive Dust Emissions. Fugitive dust emissions will result from heavy trucks associated with hauling activity along paved roads. Fugitive dust emissions also result from soil handling and storage pile wind erosion. These emissions have also been calculated and are presented in Table 4.3.H. It is assumed that standard regulatory controls (e.g., compliance with SCAQMD Rule 403) and best management practices of watering disturbed surfaces and applying soil stabilizers to inactive areas (stockpiles) will be applied.

Table 4.3.H: Summary of Maximum Short-Term Import Emissions

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Fugitive Dust (On-Road Travel)	—	—	—	—	28.23	3.66
Fugitive Dust (Soil Handling & Storage Pile Wind Erosion)	—	—	—	—	43.30	9.09
Equipment Emissions	5.43	55.17	48.11	0.08	3.09	2.84
Haul Truck Emissions	2.15	27.37	8.39	0.03	1.31	1.15
Worker Commute	1.52	9.42	12.03	0.02	0.36	0.30
Maximum Daily Emissions	**9.10**	**91.96**	**68.53**	**0.13**	**76.29**	**17.04**
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

— = Negligible Emissions/Not Quantifiable

Source: *Soil Import Air Quality Assessment, Table 2*, Urban Crossroads, Inc., March 18, 2009.

Off-Road Heavy Equipment. The project is estimated to have one sweeper, one dozer, two loaders, and one water truck on site to process soil import. Further, it is estimated that the operations for the source material site will contain sufficient construction equipment to facilitate soil loading for export.

Table 4.3.I lists pieces of equipment to be used during the project at the export site and import site.

Table 4.3.I: Off-Road Heavy Equipment Operations Summary

Description	Quantity	Hours/Day
Export Site Equipment		
Sweeper	1	8
Rubber Tire Dozer	1	8
Loaders	2	8
Water Truck	1	8
Import Site Equipment		
Sweeper	1	8
Rubber Tire Dozer	1	8
Water Truck	1	8

Source: *Soil Import Air Quality Assessment, Table 1*, Urban Crossroads, Inc., March 18, 2009.

Worker Commute and Haul Truck Emissions. Workers commuting to and from the project site were conservatively estimated based on approximately 24 worker trips per day. Emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ will also occur as a result of haul trucks utilized for the import activity. Exhaust emissions will result from heavy trucks associated with hauling activity along Ethanac Road and Goetz Road. Exhaust emissions generated have been evaluated as described below in accordance with SCAQMD protocol. Exhaust emissions resulting from off-road heavy equipment emissions, worker commute trips and haul trucks are summarized previously in Table 4.3.H.

Table 4.3.H indicates that equipment emissions associated with the import of soil to the Phase 2 project site would not exceed the SCAQMD daily thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ resulting in a less than significant impact. No mitigation is required.

Localized Pollutant Thresholds. The Industrial Source Complex Short Term (ISCST3) model was used to calculate localized emissions resulting from hauling activity and concentrated off-road equipment operations. The ISCST3 model is a steady state Gaussian plume model and is approved by the U.S. EPA for estimating ground level impacts from point and fugitive sources in simple and complex terrain. ISCST3 is capable of quantifying pollutant emissions generated from multiple sources and can accommodate both stationary emission rates and those that reflect discrete operational periods unique to the source under consideration. For purposes of this analysis, receptors were placed spatially to the south and southwest of Ethanac Road where existing residents are located. An emissions rate for each pollutant was derived from the Table 4.3.H (previously presented) and the model options were then used to convert the emissions rate to grams per second. Localized impacts including road dust are included in Table 4.3.J.

Table 4.3.J: Localized Impacts (Including Road Dust)

Pollutant	CO (1-hour)	CO (8-hour)	NO_2 (1-hour)	PM_{10} (24-hour)	$PM_{2.5}$ (24-hour)
Units	ppm	ppm	ppm	µg/m3	µg/m3
Project Emissions	0.01665	0.00574	0.03169	7.07556	1.16549
Background Concentration*	8.0	5.1	0.12	N/A	N/A
Total	**8.02**	**5.11**	**0.152**	**7.08**	**1.65**
SCAQMD Localized Threshold	**20.0**	**9.0**	**0.18**	**10.4**	**10.4**
Significant?	**No**	**No**	**No**	**No**	**No**

Note: PM_{10} and $PM_{2.5}$ threshold based on Rule 403; therefore, background concentration does not apply.
Background concentration is the maximum basin-wide concentration for Year 2007.

Source: *Soil Import Air Quality Assessment, Table 3*, Urban Crossroads, Inc., March 18, 2009.

The results of the analysis of localized pollutants indicates that the proposed haul truck operations along Ethanac Road and Goetz Road, and the equipment exhaust emissions at both the export and import sites will not exceed the SCAQMD's regional or localized pollutant thresholds. This is a less than significant impact and no mitigation is required.

4.3.6 Significant Impacts

4.3.6.1 Construction Equipment Exhaust Emissions

Impact 4.3.6.1: *The proposed project has the potential to result in an exceedance of applicable daily thresholds due to construction equipment exhaust emissions.*

Threshold	Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard? For construction operations, the applicable daily thresholds are: • 75 pounds of VOC; • 100 pounds of NO_X; • 550 pounds of CO; • 150 pounds of PM_{10}; • 55 pounds of $PM_{2.5}$; and • 150 pounds of SO_X.

Grading and other construction activities would result in combustion emissions from heavy-duty construction vehicles, haul trucks, utility engines, and vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. Peak grading days typically generate a larger amount of air pollutants than during other project construction days.

The following assumptions for short-term construction emission estimates were used:

- Project construction will take approximately 18 months to complete. Since construction equipment emissions will decrease with time due to technological advancements, this estimate would represent a worse case analysis should construction begin anytime thereafter. Additionally, since this project consists of tilt-up concrete buildings, the construction equipment required will be substantially less than what is usually used for conventional warehouse construction.
- Project construction will occur in three overlapping phases. Phase 1 includes the construction of one industrial building. It is assumed that construction for this phase will take approximately 10 months to complete.
    - The first stage of construction consists of the demolition and excavation of the existing concrete bridge assembly yard and any debris present, which will last for 4 weeks.
    - The next stage of construction consists of site grading, which will last for 4 weeks. It is anticipated that this is a balanced site and no import or export of fill materials will be necessary.
    - After grading is completed, building construction will begin, and will take approximately 6 months to complete.

  - After building construction is completed, painting can begin. It is estimated that painting will take approximately 8 weeks to complete. According to building plans, it is estimated that the total surface area to be painted (including buildings and screen walls) will be approximately 227,000 square feet. Road paving will occur concurrently with painting.

- Phase 2 includes the construction of four industrial buildings. It is assumed that construction for this phase will begin concurrently with Phase 1 and will take approximately 12 months to complete. Since the project site is currently vacant, demolition is not required.
  - Construction will begin with grading, which will last for 8 weeks. Approximately 600,000 cubic yards of soil movement will occur during grading.
  - After grading is completed, building construction will begin, and will take approximately 8 months to complete.
  - After building construction is completed, painting can begin. It is estimated that painting will take approximately 12 weeks to complete. According to building plans, it is estimated that the total surface area to be painted (including buildings and screen walls) will be approximately 525,000 square feet. Road paving will occur concurrently with painting.
- Phase 3 includes the construction of four industrial buildings. It is assumed that construction for this phase will begin during Phases 1 and 2 and will take approximately 12 months to complete. Since the project site is currently vacant, demolition is not required.
  - Construction will begin with grading, which will last for 8 weeks. Approximately 150,000 cubic yards of soil movement will occur during grading.
  - After grading is completed, building construction will begin, and will take approximately 8 months to complete.
  - After building construction is completed, painting can begin. It is estimated that painting will take approximately 12 weeks to complete. According to building plans, it is estimated that the total surface area to be painted (including buildings and screen walls) will be approximately 643,000 square feet. Road paving will occur concurrently with painting.
- Phase 2 construction will begin before construction of Phase 1 is completed, and Phase 3 construction will begin before construction of Phases 1 and 2 are completed. Therefore, certain construction activities of the phases will overlap. Therefore, the maximum daily construction emissions are the total of each construction activity in each phase.
- It is possible that construction of off-site street, water, recycled water, drainage, brine line, and sewer infrastructure improvements would take place concurrently with any of the aforementioned phases, at anytime during the project construction. This represents a worst-case scenario.

The underground utility construction phase (off-site construction) includes general trench work, pipe-laying with associated base material and cover, ancillary earthwork, and construction of manholes. It is assumed that this activity will take place concurrent with building construction and paving activities. Paving activities include the movement of any remaining material as well as necessary curb and gutter work, road base material placement, and blacktop. In addition, construction emissions for construction worker vehicles traveling to and from the project site were estimated using default calculations for the URBEMIS 2007 model. The equipment assumed for each construction phase is also based on URBEMIS 2007 model defaults. The construction emissions estimates summarized in Table 4.3K are based on the assumed construction scenario described previously. Table 4.3.L presents the maximum daily construction emissions (i.e., the combined sums of the estimated emissions for each phase of development [worst-case scenario]).

Table 4.3.K: Daily Construction Emissions Without Mitigation

Activity	Phase	Dates	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Demolition	1	6/6/2011 – 7/1/2011	10.75	126.17	52.24	0.15	119.32	28.72
Mass Grading	1	7/4/2011 – 7/15/2011	3.94	31.67	18.03	0.00	181.70	39.15
Fine Grading	1	7/18/2011 – 7/29/2011	3.94	31.67	18.03	0.00	181.70	39.15
Building Construction	1	8/1/2011 – 1/13/2012	30.14	333.61	288.50	0.70	16.40	13.55
Asphalt Paving	1	1/16/2012 – 3/9/2012	3.56	22.72	13.18	0.02	1.58	1.42
Architectural Coating	1	1/16/2012 – 3/9/2012	111.98	0.10	1.79	0.00	0.02	0.01
Maximum	**1**	**—**	**115.54**	**333.61**	**288.50**	**0.70**	**181.70**	**39.15**
Mass Grading	2	6/6/2011 – 7/1/2011	52.68	597.82	250.00	0.60	226.85	65.20
Fine Grading	2	7/4/2011 – 7/29/2011	52.68	597.82	250.00	0.60	226.85	65.20
Building Construction	2	8/1/2011 – 3/9/2012	111.00	1,262.83	1,136.78	3.06	62.13	50.40
Asphalt Paving	2	3/12/2012 – 6/1/2012	6.65	44.18	21.03	0.05	2.70	2.39
Architectural Coating	2	3/12/2012 – 6/1/2012	254.41	0.06	1.12	0.00	0.01	0.01
Maximum	**2**	**—**	**261.06**	**1,262.83**	**1,136.78**	**3.06**	**226.85**	**65.20**
Mass Grading	3	11/7/2011 – 12/2/2011	30.36	293.75	140.94	0.16	213.69	54.03
Fine Grading	3	12/5/2011 – 12/30/2011	30.36	293.75	140.94	0.16	213.69	54.03
Building Construction	3	1/2/2012 – 8/10/2012	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Asphalt Paving	3	8/13/2012 – 11/2/2012	6.34	41.99	20.24	0.04	2.61	2.31
Architectural Coating	3	8/13/2012 – 11/2/2012	234.36	0.06	1.12	0.00	0.01	0.01
Maximum	**3**	**—**	**240.70**	**1,161.28**	**1,044.98**	**2.81**	**213.69**	**54.03**
Trenching	—	Anytime in 2011	3.65	25.86	13.88	0.00	1.77	1.62
Trenching[A]	—	Anytime in 2012	3.45	24.09	13.58	0.00	1.64	1.50

Notes: [A] =Based on URBEMIS 2007 default values. It is assumed that a reduction in emissions would occur for trenching activities that would occur in different years due to technological advancements.
Source: *Air Quality Impact Analysis*, Tables 6, 7, 8, and 9, URS Corporation, August 26, 2009.

Table 4.3.L: Maximum Daily Construction Emissions Without Mitigation

Dates	Phase	Activity	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
6/6/2011 – 7/1/2011	1	Demolition	10.75	126.17	52.24	0.15	119.32	28.72
6/6/2011 – 7/1/2011	2	Mass Grading	52.68	597.82	250.00	0.60	226.85	65.20
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
6/6/2011 – 7/1/2011		**Maximum**	**67.08**	**749.85**	**316.12**	**0.75**	**347.94**	**95.54**
7/4/2011 – 7/15/2011	1	Mass Grading	3.94	31.67	18.03	0.00	181.70	39.15
7/4/2011 – 7/15/2011	2	Fine Grading	52.68	597.82	250.00	0.60	226.85	65.20
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
7/4/2011 – 7/15/2011		**Maximum**	**194.43**	**2155.05**	**914.15**	**2.10**	**1106.2**	**297.05**
8/1/2011 – 11/4/2011	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55
8/1/2011 – 11/4/2011	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
8/1/2011 – 11/4/2011		**Maximum**	**533.65**	**5,932.40**	**3,267.46**	**7.96**	**2292.70**	**659.67**
11/7/2011 – 12/2/2011	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55
11/7/2011 – 12/2/2011	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
11/7/2011 – 12/2/2011	3	Mass Grading	30.36	293.75	140.94	0.16	213.69	54.03
Anytime	—	Off-Site Construction	3.65	25.86	13.88	0.00	1.77	1.62
11/7/2011 – 12/2/2011		**Maximum**	**1242.45**	**13,780.85**	**8,115.020**	**19.84**	**4879.39**	**1438.940**
1/2/2012 – 1/13/2012	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55

Table 4.3.L: Maximum Daily Construction Emissions Without Mitigation

Dates	Phase	Activity	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
1/2/2012 – 1/13/2012	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
1/2/2012 – 1/13/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
1/2/2012 – 1/13/2012		**Maximum**	**2731.70**	**30,343.51**	**18,713.88**	**46.25**	**9896.11**	**2989.72**
1/16/2012 – 3/9/2012	1	Paving & Architectural Coating	115.54	22.82	14.97	0.02	1.60	1.43
1/16/2012 – 3/9/2012	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
1/16/2012 – 3/9/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
1/16/2012 – 3/9/2012		**Maximum**	**5795.60**	**63,158.04**	**39,638.07**	**98.39**	**19914.75**	**6079.16**
3/12/2012 – 6/1/2012	2	Paving & Architectural Coating	261.06	44.24	22.15	0.05	2.71	2.40
3/12/2012 – 6/1/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
3/12/2012 – 6/1/2012		**Maximum**	**11957.92**	**127,545.69**	**80,356.85**	**199.64**	**39891.01**	**12208.61**
6/4/2012 – 8/10/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
6/4/2012 – 8/10/2012		**Maximum**	**24021.5**	**256,276.75**	**161,772.26**	**402.09**	**79840.820**	**24465.11**
8/13/2012 – 11/2/2012	3	Paving & Architectural Coating	240.70	42.05	21.36	0.04	2.62	2.32
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50

Table 4.3.L: Maximum Daily Construction Emissions Without Mitigation

Dates	Phase	Activity	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
8/13/2012 – 11/2/2012		Maximum	48,287.15	512,619.64	323,579.46	804.22	15,9685.9	48,934.04

Shaded = Maximum daily construction emissions exceeded for the respective pollutant.
Source: *Air Quality Impact Analysis*, Table 10, URS Corporation, August 26, 2009.

Table 4.3.M indicates that construction equipment emissions during proposed on-site grading and construction periods would exceed the SCAQMD daily thresholds for VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$. Although construction of the structures uses different types of equipment on site than during grading periods, similarities do exist in terms of equipment exhaust emissions and fugitive dust emissions. This is a significant impact requiring mitigation.

Table 4.3.M: Maximum Daily Construction Emissions – Regional Significance

Pollutant	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Maximum Emissions (Shaded Areas from Table 4.3.L)	**366.72**	**2,781.81**	**2,483.84**	**6.57**	**410.32**	**119.60**
SCAQMD Construction Threshold	75	100	550	150	150	55
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Shaded = Maximum daily construction emissions exceeded for the respective pollutant.
Source: *Air Quality Impact Analysis*, Table 12, URS Corporation, August 26, 2009, 2009.

Mitigation Measures. Mitigation measures identified to reduce the level of emissions of VOC, NO_X, and CO during grading operations and construction activities are identified below. Fugitive dust emissions (e.g., PM_{10}, and $PM_{2.5}$) and the respective mitigation measures are discussed in the following section (4.3~~6~~.6.2).

4.3.6.1A Prior to the issuance of grading permits, the project applicant shall require by contract specifications that construction operations rely on electricity from infrastructure (e.g., power poles) surrounding the construction site ~~when feasible~~ instead of using portable diesel- or gasoline-powered generators. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City.

4.3.6.1B Prior to the issuance of grading permits, the project applicant shall require by contract specifications that construction activities are timed so as to not interfere with peak hour traffic and minimize obstruction of through traffic lanes adjacent to the site. Dedicated turn lanes for the movement of construction trucks and equipment shall be provided ~~as needed~~ for each phase of development. Construction trucks shall be routed away from congested streets and sensitive receptor areas ~~to the extent feasible~~. ~~If necessary, a~~ A flag person shall be retained by the construction supervisor to maintain safety adjacent to existing roadways. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City. In addition, the project applicant shall require by contract specifications the following provisions:

- Prohibit truck idling in excess of five minutes, both on- and off-site;
- Configure construction parking to minimize traffic interference;

- Improve traffic flow by signal synchronization; and
- All vehicles and equipment will be properly tuned and maintained according to manufacturers' specifications.

4.3.6.1C The construction contractor shall utilize alternative-fueled construction equipment to the maximum extent feasible. All diesel-powered construction equipment shall meet or exceed Tier III standards, or shall be equipped with CARB-verified oxidation catalysts and diesel particulate filter emission controls, using the greatest control efficiency for the specific category of equipment. The construction contractor shall demonstrate that these verified/certified technologies are available to be used at the time of project construction.

4.3.6.1D The construction contractor shall utilize pre-coated, pre-colored, and naturally colored building materials when feasible to minimize the amount of VOC emissions from painting activities. ~~To the extent practicable, coatings~~ Coatings and solvents with a VOC content lower than required under SCAQMD Rule 1113 or no-VOC paints and architectural coatings shall be employed. A list of low/no-VOC paints is provided at the SCAQMD website (www.aqmd.gov/prdas/brochures/paintguide.html). All paints shall be applied using either high-volume low-pressure (HVLP) spray equipment ~~or~~ by hand application, or other application techniques with equivalent or higher transfer efficiency. Specific requirements shall appear in the project construction plans and construction documents.

Level of Significance after Mitigation. The mitigated construction emissions estimates summarized in Table 4.3.N are based on the assumed construction scenario described previously. Table 4.3.O presents the mitigated maximum daily construction emissions (i.e., the combined sums of the estimated emissions for each phase of development [worst-case scenario]). With implementation of **Mitigation Measures 4.3.6.1A** through **4.3.6.1D**, project-related short-term construction emissions would be reduced; however, remain significant and unavoidable for VOC, NO_X, and CO as presented in Table 4.3.P.

Table 4.3.N: Daily Construction Emissions With Mitigation

Activity	Phase	Dates	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Demolition	1	6/6/2011 – 7/1/2011	10.75	126.17	52.24	0.15	119.32	28.72
Mass Grading	1	7/4/2011 – 7/15/2011	3.94	31.67	18.03	0.00	85.00	18.95
Fine Grading	1	7/18/2011 – 7/29/2011	3.94	31.67	18.03	0.00	85.00	18.95
Building Construction	1	8/1/2011 – 1/13/2012	30.14	333.61	288.50	0.70	16.40	13.55
Asphalt Paving	1	1/16/2012 – 3/9/2012	3.56	22.72	13.18	0.02	1.58	1.42
Architectural Coating	1	1/16/2012 – 3/9/2012	111.98	0.10	1.79	0.00	0.02	0.01
Maximum	**1**		**115.54**	**333.61**	**288.50**	**0.70**	**119.32**	**28.72**
Mass Grading	2	6/6/2011 – 7/1/2011	52.68	597.82	250.00	0.60	119.41	42.76

Table 4.3.N: Daily Construction Emissions With Mitigation

Activity	Phase	Dates	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Fine Grading	2	7/4/2011 – 7/29/2011	52.68	597.82	250.00	0.60	119.41	42.76
Building Construction	2	8/1/2011 – 3/9/2012	111.00	1,262.83	1,136.78	3.06	62.13	50.40
Asphalt Paving	2	3/12/2012 – 6/1/2012	6.65	44.18	21.03	0.05	2.70	2.39
Architectural Coating	2	3/12/2012 – 6/1/2012	254.41	0.06	1.12	0.00	0.01	0.01
Maximum	**2**		**261.06**	**1,262.83**	**1,136.78**	**3.06**	**119.41**	**50.40**
Mass Grading	3	11/7/2011 – 12/2/2011	30.36	293.75	140.94	0.16	106.25	31.59
Fine Grading	3	12/5/2011 – 12/30/2011	30.36	293.75	140.94	0.16	106.25	31.59
Building Construction	3	1/2/2012 – 8/10/2012	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Asphalt Paving	3	8/13/2012 – 11/2/2012	6.34	41.99	20.24	0.04	2.61	2.31
Architectural Coating	3	8/13/2012 – 11/2/2012	234.36	0.06	1.12	0.00	0.01	0.01
Maximum	**3**		**240.70**	**1,161.28**	**1,044.98**	**2.81**	**106.25**	**31.59**
Trenching	—	Anytime in 2011	3.65	25.86	13.88	0.00	1.77	1.62
Trenching[A]	—	Anytime in 2012	3.45	24.09	13.58	0.00	1.64	1.50

Notes: [A] = Based on URBEMIS 2007 default values. It is assumed that a reduction in emissions would occur for trenching activities that would occur in different years due to technological advancements.
Source: *Air Quality Impact Analysis*, Tables 16, 17, 18, and 19, URS Corporation, August 26, 2009.

Table 4.3.O: Maximum Daily Construction Emissions With Mitigation

Dates	Phase	Activity	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
6/6/2011 – 7/1/2011	1	Demolition	10.75	126.17	52.24	0.15	119.32	28.72
6/6/2011 – 7/1/2011	2	Mass Grading	52.68	597.82	250.00	0.60	119.41	42.76
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
6/6/2011 – 7/1/2011		**Maximum**	**67.08**	**749.85**	**316.12**	**0.75**	**240.50**	**73.10**
7/4/2011 – 7/15/2011	1	Mass Grading	3.94	31.67	18.03	0.00	85.00	18.95

Table 4.3.O: Maximum Daily Construction Emissions With Mitigation

Dates	Phase	Activity	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
7/4/2011 – 7/15/2011	2	Fine Grading	52.68	597.82	250.00	0.60	119.41	42.76
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
7/4/2011 – 7/15/2011		**Maximum**	**194.43**	**2155.05**	**914.15**	**2.1**	**687.18**	**209.53**
8/1/2011 – 11/4/2011	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55
8/1/2011 – 11/4/2011	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
Anytime	—	Off-site Construction	3.65	25.86	13.88	0.00	1.77	1.62
8/1/2011 – 11/4/2011		**Maximum**	**533.65**	**5,932.4**	**3,267.46**	**7.96**	**1454.66**	**484.63**
11/7/2011 – 12/2/2011	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55
11/7/2011 – 12/2/2011	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
11/7/2011 – 12/2/2011	3	Mass Grading	30.36	293.75	140.94	0.16	106.25	31.59
Anytime	—	Off-Site Construction	3.65	25.86	13.88	0.00	1.77	1.62
11/7/2011 – 12/2/2011		**Maximum**	**1242.45**	**13,780.85**	**8,115.02**	**19.84**	**3095.87**	**1066.42**
1/2/2012 – 1/13/2012	1	Building Construction	30.14	333.61	288.50	0.70	16.40	13.55
1/2/2012 – 1/13/2012	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
1/2/2012 – 1/13/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
1/2/2012 – 1/13/2012		**Maximum**	**2731.7**	**30,343.51**	**18,713.88**	**46.25**	**6329.07**	**2244.68**
1/16/2012 – 3/9/2012	1	Paving & Architectural Coating	115.54	22.82	14.97	0.02	1.60	1.43

Table 4.3.O: Maximum Daily Construction Emissions With Mitigation

Dates	Phase	Activity	VOC lbs/day	NO_x lbs/day	CO lbs/day	SO_x lbs/day	PM_{10} lbs/day	$PM_{2.5}$ lbs/day
1/16/2012 – 3/9/2012	2	Building Construction	111.00	1,262.83	1,136.78	3.06	62.13	50.40
1/16/2012 – 3/9/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
1/16/2012 – 3/9/2012		**Maximum**	**5795.6**	**63,158.04**	**39,638.07**	**98.39**	**12780.67**	**4589.08**
3/12/2012 – 6/1/2012	2	Paving & Architectural Coating	261.06	44.24	22.15	0.05	2.71	2.40
3/12/2012 – 6/1/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
3/12/2012 – 6/1/2012		**Maximum**	**11957.92**	**127,545.69**	**80,356.85**	**199.64**	**25622.85**	**9228.45**
6/4/2012 – 8/10/2012	3	Building Construction	102.21	1,161.28	1,044.98	2.81	57.16	46.39
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
6/4/2012 – 8/10/2012		**Maximum**	**24021.5**	**256,276.75**	**161,772.26**	**402.09**	**51304.5**	**18504.79**
8/13/2012 – 11/2/2012	3	Paving & Architectural Coating	240.70	42.05	21.36	0.04	2.62	2.32
Anytime	—	Off-site Construction	3.45	24.09	13.58	0.00	1.64	1.50
8/13/2012 – 11/2/2012		**Maximum**	**48287.15**	**512,619.64**	**323,579.46**	**804.22**	**102613.26**	**37013.4**

Shaded = Maximum daily construction emissions exceeded for the respective pollutant.
Source: *Air Quality Impact Analysis*, Table 20, URS Corporation, August 26, 2009.

Table 4.3.P: Maximum Daily Construction Emissions with Mitigation– Regional Significance

Pollutant	VOC lbs/day	NO_x lbs/day	CO lbs/day	SO_x lbs/day	PM_{10} lbs/day	$PM_{2.5}$ lbs/day
Maximum Emissions (Shaded Areas from Table 4.3.O)	**366.72**	**2,781.81**	**2,483.84**	**6.57**	**240.50**	**111.84**
SCAQMD Construction Threshold	75	100	550	150	150	55
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Shaded = Maximum daily construction emissions exceeded for the respective pollutant.
Source: *Air Quality Impact Analysis*, Table 22, URS Corporation, August 26, 2009.

4.3.6.2 Construction Fugitive Dust

Impact 4.3.6.2: *The proposed project has the potential to generate fugitive dust during project construction in excess of established thresholds.*

Threshold	Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard? For construction operations, the applicable daily threshold is: • 150 pounds of PM_{10}; and • 55 pounds of $PM_{2.5}$.

Fugitive dust emissions are generally associated with demolition, land clearing, exposure of soils to the wind, cut and fill operations, and vehicle and equipment travel on unpaved roads. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

Based on the construction assumptions for the proposed project, previously referenced Table 4.3.L lists the fugitive dust emissions during the grading and construction periods. Table 4.3.M identifies that without mitigation, fugitive dust emissions (PM_{10} and $PM_{2.5}$) during the grading periods would result in approximately 410.32 lbs/day and 119.60 lbs/day respectively, during the peak construction day and thus exceed the SCAQMD threshold of 150 pounds per day and 55 pounds per day during construction. The project is required to comply with regional rules that reduce short-term air pollutant emissions. Dust control measures required by the SCAQMD under its fugitive dust rules (Rule 403) can significantly reduce dust emissions. The purpose of SCAQMD Rule 403 is to reduce the amount of particulate matter in the atmosphere resulting from man-made fugitive dust sources. Among the requirements under this rule, fugitive dust must be controlled so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. This is achieved by requiring actions to prevent, reduce, or mitigate dust emissions. Adherence to Rule 403 is a standard requirement for any development project occurring within the Basin. Applicable dust suppression techniques cited in Rule 403 include the following:

- Revegetate disturbed areas as quickly as possible.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph).
- Sweep all streets once per day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site.
- Pave, water, or chemically stabilize all on-site roads as soon as feasible.
- Minimize at all times the area disturbed by clearing, grading, earthmoving, or excavation operations.
- Apply non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily. Locations where grading is to occur will be thoroughly watered prior to earthmoving.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code (CVC) Section 23114.

- Pave construction access roads at least 100 feet onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

With the implementation of standard conditions contained in Rule 403 identified above, fugitive dust emissions from construction activities can be largely reduced.

Mitigation Measures. In addition to adherence to the standard requirements identified in SCAQMD Rule 403, typical mitigation measures identified to further reduce the level of emissions of fugitive dust include the following:

4.3.6.2A In order to reduce particulate matter emissions during project construction, the project applicant shall apply non-toxic soil stabilizers or a comparable dust suppressant to all inactive construction areas (previously graded areas inactive for five consecutive days or more). Chemical soil stabilizers, if used, shall be applied according to manufacturers' specifications. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding soil stabilization.

4.3.6.2B In order to reduce particulate matter emissions during project construction, the project applicant shall establish a vegetative ground cover within 21 working days after active operations have ceased. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding revegetation of disturbed areas.

4.3.6.2C In order to reduce particulate matter emissions during project construction, the project applicant shall water exposed surfaces three times a day. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding watering of the site.

4.3.6.2D In order to reduce particulate matter emissions during construction, the project applicant shall enforce speeds limits on unpaved roads to less than 15 miles per hour.

4.3.6.2E In order to reduce particulate matter emissions during clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, the project applicant shall utilize water trucks or sprinkler systems to prevent dust from leaving the site.

4.3.6.2F In order to reduce particulate matter emissions during construction, the project applicant shall utilize water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site.

4.3.6.2G In order to reduce particulate matter emissions during construction, the project applicant shall temporarily terminate soil disturbance activities when high winds exceeding 25 miles per hour (measured as instantaneous gusts) make dust control extremely difficult.

4.3.6.2H In order to reduce particulate matter emissions during construction, the project applicant shall require soil stockpiled for more than two days to be covered, kept moist, or treated with soil binders to prevent dust generation.

4.3.6.2I In order to reduce particulate matter emissions during construction, the project applicant/contractor shall reduce "spill-over" effects by preventing soil erosion, washing dirt from vehicles entering public roadways, and washing/sweeping project access to public roadways on a regular schedule. All streets shall be swept once a day if visible soil materials are carried to adjacent streets. Wheel washers shall be installed where vehicles enter and exit unpaved roads onto paved roads. Street sweepers shall comply with SCAQMD Rule~~s~~ 1186 ~~and 1186.1~~. This mitigation

measure incorporates the applicable provisions identified in Rule 403 regarding street sweeping and wheel washing.

4.3.6.2J In order to reduce particulate matter emissions during construction, the project applicant shall require all trucks hauling dirt, sand, soil, or other loose materials be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114. This mitigation measure incorporates the applicable provisions identified in Rule 403 regarding covering of trucks and maintenance of freeboard.

4.3.6.2K The project proponent shall appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues in relation to PM_{10} generation. Signage with this contact information shall be made available for each phase site.

4.3.6.2L In order to reduce particulate matter emissions during construction, the project applicant/contractor shall apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces.

4.3.6.2M Prior to the issuance of grading permits for each development site, the project developer shall submit to the SCAQMD, SCAQMD Rule 403 Form 403N (Large Operation Notification Form) and contact SCAQMD engineering and compliance staff.

Level of Significance after Mitigation. With the implementation of standard regulations identified in SCAQMD Rule 403, fugitive dust emissions from construction activities are expected to be reduced. The proposed project will be required to comply with SCAQMD Rule 403 to control fugitive dust. Compliance with these rules along with the mitigation measures identified above would ensure that fugitive dust impacts are reduced. Table 4.3.O identifies that with mitigation fugitive dust emissions (PM_{10} and $PM_{2.5}$) during the grading periods would result in approximately 240.50 lbs/day and 111.84 lbs/day respectively, during the peak grading day and thus would still exceed the SCAQMD threshold of 150 pounds per day and 55 pounds per day during construction. With adherence to SCAQMD Rule 403 and implementation of **Mitigation Measures 4.3.6.2A** through **4.3.6.2M~~J~~**, project-related fugitive dust emissions would be reduced; however, remain significant and unavoidable as shown in previously referenced Table 4.3.P.

4.3.6.3 Long-Term Project-Related Emissions Impacts

Impact 4.3.6.3: *The proposed project would result in a net increase of criteria air pollutants generated during the operation of the proposed on-site uses.*

Threshold	Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard? For long-term operations, the applicable daily thresholds are: • 55 pounds of VOC; • 55 pounds of NO_X; • 550 pounds of CO; • 150 pounds of PM_{10};

- 55 pounds of $PM_{2.5}$; and
- 150 pounds of SO_X.

Long-term air emission impacts are those associated with stationary sources and mobile sources resulting from implementation of the proposed project. Under build out of the proposed development, the project would consist of industrial warehouse uses on 455 acres. The stationary source emissions from these land uses would come from consumption of natural gas and electricity. Additionally, the use of on-site equipment such as forklifts and associated hostlers is typically associated with industrial warehouse uses. The number of equipment in use and the intensity of use vary by the particular tenant. In order to estimate the emissions from the project, it is assumed that there will be one forklift in use per 20,000 square feet of warehouse space.

Although the use of refrigerated warehouses is not anticipated at this time, it is possible that a future tenant could require this type of product, therefore, it is estimated that there could be two refrigerated tenants per building, each of them requiring an emergency back-up diesel generator, in the event that electricity service to the site is disrupted. It is not possible to anticipate the amount of usage for these generators; however, the permit to operate from SCAQMD allows the generators to be run up to 30 hours a year for maintenance. Therefore, this was the scenario utilized in this analysis. The transportation refrigerated units (TRUs) which will be serving the site are required to comply with the CARB 5-minute idling rule, therefore the project will include electric hook-ups at the loading bays in order to allow the TRUs to plug in when they arrive at the project, in order to comply with the CARB anti-idling rule. Therefore, no additional emissions from the operation of TRUs at the project were added.

There is also the potential for rail service to the proposed Phase 2 site. The use of hostlers is associated with building docks located adjacent to the rail line on the proposed Phase 2 site. Therefore, it was assumed that one hostler would serve the west dock area of Building 1 and one hostler would serve the west dock area of Building 2. Additionally, it was assumed that two hostlers would be used for the switching area to the south of Building 2.

Switcher service to the project vicinity currently exists to customers south of the proposed project area using the existing tracks along Case Road. Switcher service to the proposed Phase 2 site will not require any new trips along the main track and the only additional trips are the switcher trips that travel down the track that serves the proposed Phase 2 site, which forks to the left from the mainline just south of 7th Street. Switcher service to the proposed Phase 2 site will occur on days when the Road Switcher is scheduled to operate (3 days per week: Tuesday, Thursday, and Saturday). Therefore, the maximum number of days of rail service that the proposed Phase 2 site will receive is three days per week and this scenario was utilized in the analysis.

The current speed limit for freight trains on the trackage north and south of the proposed project area varies between 10 mph and 15 mph; however, the track that would serve the proposed Phase 2 site has a speed limit of 10 mph. The diesel locomotives currently used in switcher service on this line are the Electro Motive Division GP60M's and General Electric B40-8W's. The short train lengths (approximately 18 cars) and resulting trailing tonnage, along with the 10 mph track speed, will allow for minimal throttle notch settings with these types of locomotives. Throttle notches will vary between idle, notch 1, notch 2, and minimally notch 3. The switching operations at the proposed Phase 2 site will require idle, notch 1, and notch 2, and will take no more than an hour per day. The rail service and switching activity on-site were modeled as a line source (consisting of multiple adjacent volume sources).

Mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to and from the site and from landscape maintenance equipment used to maintain the site. Based on the traffic study prepared for this project, the proposed project would generate approximately 11,915 net vehicle trips per day. In order to accurately estimate the mobile source emissions from project generated vehicles, the fleet mix used in the URBEMIS 2007 model was changed to reflect the vehicle

distribution data, which was used and referenced in the project's *Traffic Impact Analysis* prepared by Urban Crossroads, dated April, 2009. The 2-axle trucks, 3-axle trucks, and 4+-axle trucks referenced in the project's *Traffic Impact Analysis* were considered light-heavy trucks, medium heavy trucks, and heavy-heavy trucks, respectively. The area and mobile source emissions for the proposed project were estimated using the URBEMIS 2007 Version 9.2.4 computer model for each individual project site. The sum of the daily operational emissions from each building represents the maximum daily operational emissions from the project. The model output files are provided in Appendix C-1. Project emissions resulting from the operation of the project are presented in Table 4.3.Q.

As presented in Table 4.3.Q, project-related emissions for CO, NO_X, VOC, PM_{10}, and $PM_{2.5}$ would exceed the SCAQMD daily emissions thresholds. Pollutant emissions of CO, NO_X, VOC, PM_{10}, and $PM_{2.5}$ that would exceed the SCAQMD thresholds may contribute to the maintenance of existing nonattainment status in the Basin.

Table 4.3.Q: Summary of Peak Project Operations Emissions (Summer and Winter)

Phase	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Summer Phase 1	66.56	376.63	450.03	0.92	19.76	16.66
Summer Phase 2	257.88	1,663.29	1,718.07	6.12	416.33	129.46
Summer Phase 3	246.59	1,492.67	1,565.12	3.73	380.96	117.65
Summer Maximum	**571.03**	**3,532.59**	**3,733.22**	**10.77**	**817.06**	**263.77**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Winter Phase 1	69.93	397.81	425.52	0.84	19.76	16.66
Winter Phase 2	266.39	1,752.70	1,599.95	5.77	416.33	129.46
Winter Phase 3	254.39	1,574.77	1,456.53	3.41	380.96	117.65
Winter Maximum	**590.71**	**3,725.28**	**3,482.00**	**10.02**	**817.06**	**263.77**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Note: Summer and winter maximum emissions are the sum of the area source and vehicle emissions of each phase.
Source: *Air Quality Impact Analysis*, Table 14, URS Corporation, August 26, 2009.

Policies within the City's General Plan require continued cooperation with the SCAQMD and the SCAG to achieve regional air quality improvement goals, encourage alternative transportation modes, and implement transportation demand management (TDM) strategies and transportation control measures (TCM).

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. The LEED rating system encourages and accelerates global adoption of sustainable green building and development practice through the creation and implementation of universally understood and accepted tools and performance criteria. In the United States, buildings use one-third of total energy produced, two-thirds of electricity generated, and one-eighth of the water extracted. The LEED rating system is a voluntary, consensus-based, market-driven building rating system based on existing proven technology. It evaluates environmental performance from a whole building perspective over a building's life cycle. The rating system is organized into five environmental categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, and Indoor Environmental Quality. The rating system is a performance-oriented system where credits are earned for satisfying each criterion. Different levels of green building certification are awarded based on the total credits earned and consist of the following: Certified, Silver, Gold, and Platinum. To

earn an LEED certification, the project must satisfy all of the prerequisites and a minimum number of points to attain the established LEED rating.

In order to help further reduce the project's air pollutant emissions, the project applicant has included design features which are consistent with the achievement of a LEED Silver rating. The project applicant will pursue LEED certification (including the completion of necessary applications through the United States Green Building Council [USGBC] and payment of pertinent application and processing fees) in an effort to obtain a LEED Silver rating. The applicant has also contracted with a LEED Accredited Professional to oversee efforts to obtain certification. Although certification will be pursued, it is not assured, as the award of LEED Silver certification is subject to the discretion of the USGBC and that organization's ability to process the application in a timely manner.

The green design field is growing and changing daily. New technologies and products are coming into the marketplace and innovative designs are providing their effectiveness. The design elements, which will be included in the project, were developed based on the most recent Version 2.2 LEED checklist and include:

- Providing detailed tenant design guidelines to future tenants to meet green building requirements;
- Providing secure bike racks or storage for 3 percent or more of all building users, and providing shower and changing facilities for 0.5 percent full-time employees;
- Providing preferred parking for low-emitting and fuel efficient vehicles for 5 percent of total vehicle parking;
- Sizing parking capacity not to exceed zoning requirements and providing carpool/vanpool for 5 percent of spaces;
- Limiting disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and managing stormwater runoff;
- Reducing the potable water consumption for irrigation by 50 percent;
- Maximizing water efficiency within the project resulting in a 30 percent reduction of water use, excluding irrigation, than the baseline after meeting Energy Policy Act of 1992 guidelines for fixture performance;
- Optimizing energy performance and achieving a 30 percent reduction in energy use beyond Title 24 requirements through the use of T5 fluorescent lighting in the warehouse, T5/T8 fluorescent lighting in the offices, and the use of skylights where applicable;
- Recycling and/or salvaging 75 percent of non-hazardous construction and demolition waste, and developing and implementing a construction waste management plan;
- Using recycle content building material with at least 20 percent of total value of materials in the project;
- Using regional building materials or products that has been extracted, harvested and recovered as well as manufactured for a minimum of 20 percent of the total material value;
- Providing additional outdoor air ventilation to improve indoor air quality for improved occupant comfort, well-being, and productivity;
- Developing and implementing an indoor air quality management plan during construction and pre-occupancy;
- Provide exceptional performance above LEED requirement building rating system and innovation performance in green building categories; and
- Having a LEED Accredited Professional involved through the project design process.

The design features incorporated into the project design will result in a reduction of the project's operational and GHG emissions through a reduction in energy and water needs which will make the project eligible for LEED Silver certification subject to the applicant's application and USGBC's potential certification of the project. Although the project will be designed and constructed with implementation of LEED principles and strategies, no further reduction to the energy consumption values is assumed. Please see the *Greenhouse Gas Analysis* contained in Appendix C-2 for a further discussion of the project's LEED scoring evaluation.

Mitigation Measures. The following mitigation measures have been identified to reduce the operational emissions of VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$:

4.3.6.3A In order to reduce the project's operation diesel particulate matter emissions, prior to the issuance of building permits, the project applicant shall require by contract specifications that signs shall be posted on the site in loading bay areas informing truck drivers of the California Air Resources Board regulations that limit truck idling to no more than five (5) minutes, both on- and off-site. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/successor-in-interest and shall be reviewed by the City.

4.3.6.3B In order to reduce the project's operational diesel particulate matter emissions, prior to the issuance of building permits, the project applicant shall require by contract specifications that electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary idling of main and auxiliary truck engines. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/successor-in-interest and shall be reviewed by the City.

4.3.6.3C In order to reduce the project's operational diesel particulate matter emissions, prior to issuance of building permits, the project applicant shall require by contract specifications that all on-site forklifts and other equipment will not be diesel-powered, but required to be electric or some other type of low-emission technology available at the time of development. Contract specifications shall be included in the proposed project construction documents, which shall apply to the developer/successor-in-interest and shall be reviewed by the City.

4.3.6.3D As part of building plan approval, the project proponent shall include energy efficient measures that exceed California Title 24 standards by 30 percent for all buildings. Energy efficient measures may include (but are not limited to):

- Installation of efficient lighting and lighting control systems (electronic dimming ballasts and computer-controlled daylight sensors, low-mercury bulbs, and bulb reduction);
- Use of daylight as an integral part of lighting systems in buildings (e.g., skylights);
- Installation of light colored "cool" roofs, cool pavements, and strategically placed shade trees;
- Provision of information on energy management services for large energy users;
- Installation of energy efficient heating and cooling systems, appliances and equipment, and control systems; and
- Installation of light emitting diodes (LEDs) for exterior signs and landscaping; and limiting the hours of operation of outdoor lighting.

4.3.6.3E As part of building plan approval, the project proponent shall accommodate renewable energy facilities. The project shall be structurally designed to be ready to

accept the installation of solar and/or wind power systems (subject to Southern California Edison's program), solar and/or tankless hot water heaters, and energy-efficient heating ventilation and air conditioning~~s~~ (HVAC). Additionally, the project proponent shall educate consumers about existing incentives.

4.3.6.3F As part of building plan approval, the project proponent shall include transportation and motor vehicle reduction measures. Transportation and motor vehicle reduction measures shall apply to the developer/successor-in-interest and shall ~~may~~ include (but are not limited to):

- Limit idling time for commercial vehicles, including delivery and construction vehicles to five minutes or less, both on- and off-site;
- Use low or zero-emission vehicles, including construction vehicles;
- Require implementation of ~~Promote~~ ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides for all initial and future occupants.
- For large employers (employers who employ 250 or more employees), provide facilities that encourage bicycle commuting, including (e.g., locked bicycle storage or covered or indoor bicycle parking); and
- Create bicycle lanes and walking paths directed to the location of schools, parks, and other destination points.

4.3.6.3G As part of building plan approval, the project proponent shall include the following project design and operational/health effect measures:

- Project-generated trucks servicing the proposed project shall be restricted from residential areas and schools and, a specific truck route shall be delineated on the circulation/transportation plan, implemented with the use of signage, to direct project-related trucks away from sensitive receptors (i.e., ensure that trucks will not enter residential areas or pass by other sensitive receptor areas);
- Design the warehouse/distribution center and any future expansion such that there are no trucks queuing outside each facility;
- Post signs outside of each facility providing a phone number where neighbors can call if there is a specific issue; and
- Improve traffic flow by signal synchronization.

Level of Significance after Mitigation. Although implementation of **Mitigation Measures 4.3.6.3A** through **4.3.6.3G~~F~~** may reduce emissions associated with the proposed project, it is not possible to quantify the reduction in the amount of emissions that may occur. During project operation, it is not known specifically what type of on-site equipment will be used (i.e. natural gas or propane fueled), therefore no additional reduction in operational emissions were taken. Considering the volume of emissions generated and current commuter habits, it is unlikely the implementation of TDMs/TCMs will result in a reduction of operational project emissions to below existing SCAQMD thresholds. No other feasible mitigation measures have been identified to reduce the operational emissions of VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$ to a less than significant level. Project operational emissions will continue to exceed thresholds.

Because the project site is located in a nonattainment air basin for criteria pollutants, the addition of air pollutants resulting from operation of the proposed project would contribute to the continuation of

nonattainment status in the Basin. In the absence of mitigation to reduce the proposed project's emission contribution of VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$ to below SCAQMD thresholds, potential long-term air quality impacts resulting from the operation of the proposed project will remain significant and unavoidable.

4.3.6.4 Project-Related Localized Construction Emissions Impacts

Impact 4.3.6.4: *The proposed project has the potential to result in a considerable net increase of criteria air pollutants that would exceed localized significance thresholds during the construction phase.*

Threshold	Would the proposed project expose sensitive receptors to substantial pollutant concentrations? For short-term construction, the applicable localized daily thresholds at a sensitive receptor are: • NO_x concentration of 339 µg/m^3; • CO concentration of 23,000 µg/m^3; • PM_{10} concentration of 10.4 µg/m^3; and • $PM_{2.5}$ concentration of 10.4 µg/m^3.

SCAQMD has developed LST methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standard. These emission levels have been developed based on the ambient concentrations of that pollutant for each source receptor area. The emissions of concern from construction activities are NO_X and CO combustion emissions from construction equipment and fugitive PM_{10} and $PM_{2.5}$ dust from construction site preparation activities. In the case of CO and NO_2, since ambient levels are below the standards within the project area, the project is considered to have a significant impact if emissions result in an exceedance of one or more of these standards. In the case of PM_{10} and $PM_{2.5}$, ambient levels exceed the standards within the project area, and both are non-attainment pollutants. Therefore, local emissions are considered significant if they exceed 10.4 µg/m^3 during construction or 2.5 µg/m^3 during the subsequent operation of the site, both as measured at the proximate sensitive receptor locations.

Emissions resulting from infrastructure improvements (including the extension of the rail spur to the Phase 2 site) are accounted for in the construction localized construction emissions analysis. Localized impacts were assessed using the Industrial Source Complex Short Term (ISCST3) dispersion model following the protocols in the "Finalized Localized Significance Methodology" published by SCAQMD (June 2003). Table 4.3.R presents the results of the localized emissions during construction activity. As presented, emissions of NO_x, PM_{10}, and $PM_{2.5}$ exceed the localized threshold that would occur for construction activity, while emissions of CO would not exceed the threshold. NO_x, PM_{10}, and $PM_{2.5}$ emissions are a significant impact requiring mitigation. Specific sensitive receptors that would be affected by NO_x, PM_{10}, and $PM_{2.5}$ emissions and the duration of exposure to these emissions during construction activity are depicted in Figures 4.3.4 through 4.3.9. As identified in Figure 4.3.4, one hour NO_x emissions during construction exceed thresholds at thirteen residences and two school sites while Figure 4.3.5 shows that annual NO_x emissions during construction do not exceed thresholds at any sensitive receptors. As identified in Figure 4.3.6, one hour PM_{10} emissions during construction exceed thresholds at two residences while Figure 4.3.7 shows that annual PM_{10} emissions during construction exceed thresholds at one residence. As identified in Figures 4.3.8 and 4.3.9, one hour and annual $PM_{2.5}$ emissions during construction do not exceed thresholds at any sensitive receptors.

Table 4.3.R: Localized Project Construction Emissions Without Mitigation

	NO_2 (µg/m^3)	CO (µg/m^3)		PM_{10} (µg/m^3)	$PM_{2.5}$ (µg/m^3)
	Averaging Time				
	1-Hour	1-Hour	8-Hour	24-Hour	
Maximum Daily Localized Emissions	435.73[1]	6,648.02	4,265.95	506.02	145.44
Background Concentration[2]	0.09	4.0	3.0	N/A[3]	N/A[3]
Total Concentration	435.82	6,652.02	4,268.95	506.02	145.44
Localized Significance Threshold	**339**	**23,000**	**10,000**	**10.4**	**10.4**
Exceeds Threshold?	**Yes**	**No**	**No**	**Yes**	**Yes**

[1] The NO_2 portion of NO_X was calculated using a downwind distance of 50 meters, which corresponds to a NO_2/NO_X ratio of 0.059.
[2] Highest concentrations from the last five years of available data (Table 3).
[3] Since basin is in non-attainment for PM_{10} and $PM_{2.5}$, threshold is established as an "allowable change" in concentration as recommended by the SCAQMD. Therefore background/total concentration is not applicable.
Shaded = Maximum localized construction emissions exceeded for the respective pollutant.

Source: *Air Quality Impact Analysis*, Table 13, URS Corporation, August 26, 2009.

Mitigation Measures. Previously identified mitigation measures **4.3.6.1A** through **4.3.6.1D** and **4.3.6.2A** through **4.3.6.2MJ** would reduce impacts associated with localized project construction emissions of NO_x, PM_{10}, and $PM_{2.5}$.

Level of Significance after Mitigation. Table 4.3.S presents the results of the localized emissions during construction activity with mitigation. As presented in Table 4.3.S, emissions of PM_{10}, and $PM_{2.5}$ would still exceed the localized thresholds for construction activity even with mitigation. Although the mitigation measures identified would reduce emissions of PM_{10}, and $PM_{2.5,}$ the reduction in emissions would not result in emission levels below SCAQMD LST thresholds. Additionally, there is no way to quantify the reduction in NO_x emissions that would occur from implementation of the mitigation measures. Therefore construction-related localized NO_x, PM_{10}, and $PM_{2.5}$ emissions impacts remain significant and unavoidable.

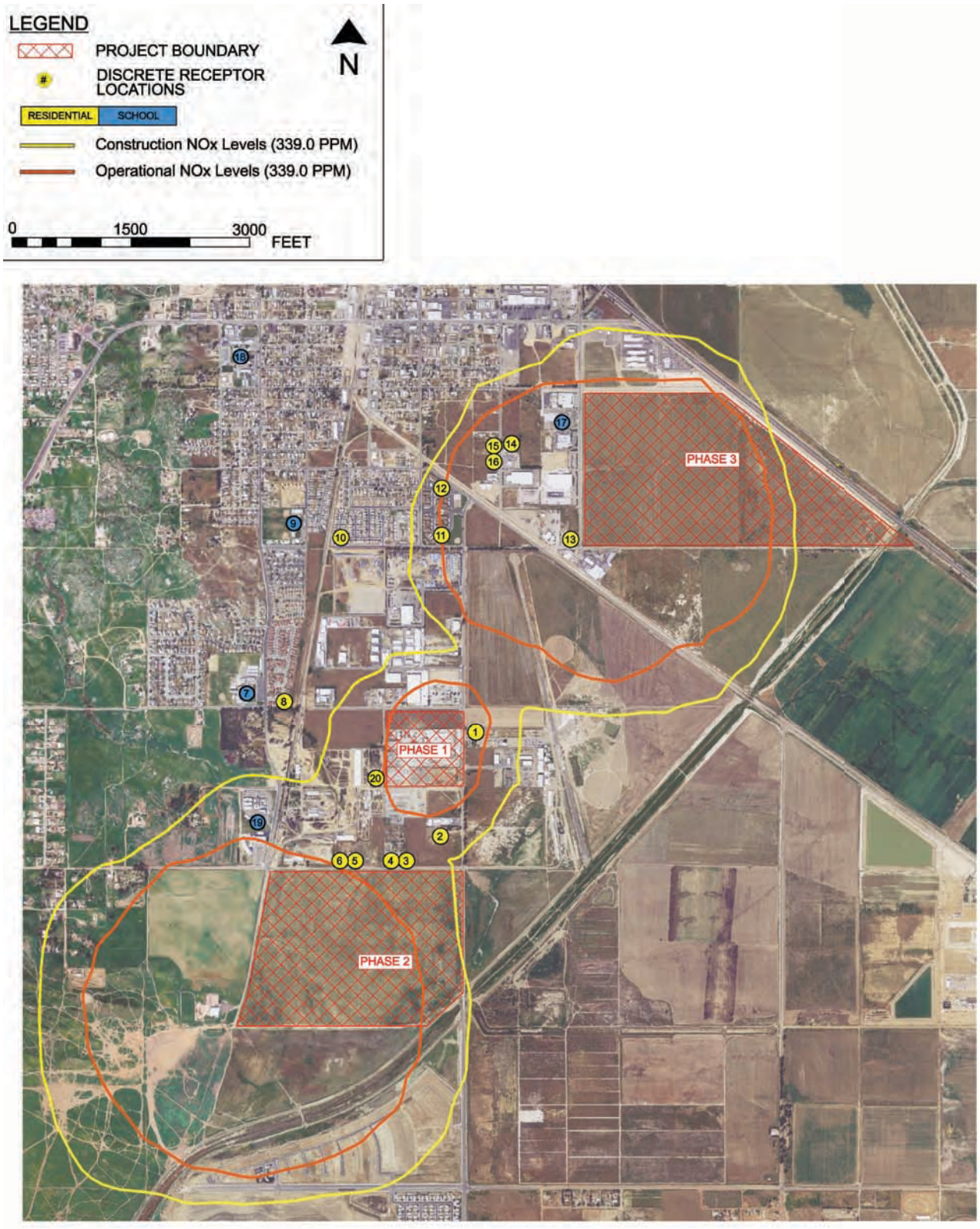
Table 4.3.S: Localized Project Construction Emissions With Mitigation

	NO2 (µg/m^3)	CO (µg/m^3)		PM_{10} (µg/m^3)	$PM_{2.5}$ (µg/m^3)
	Averaging Time				
	1-Hour	1-Hour	8-Hour	24-Hours	
Maximum Daily Localized Emissions	435.73[1]	6,648.02	4,265.95	292.25	112.42
Background Concentration[2]	0.09	4.0	3.0	N/A[3]	N/A[3]
Total Concentration	435.82	6,652.02	4,268.95	292.25	112.42
Localized Significance Threshold	**339**	**23,000**	**10,000**	**10.4**	**10.4**
Exceeds Threshold?	**Yes**	**No**	**No**	**Yes**	**Yes**

[1] The NO_2 portion of NO_X was calculated using a downwind distance of 50 meters, which corresponds to a NO_2/NO_X ratio of 0.059.
[2] Highest concentrations from the last five years of available data (Table 3).
[3] Since basin is in non-attainment for PM_{10} and $PM_{2.5}$, threshold is established as an "allowable change" in concentration as recommended by the SCAQMD. Therefore background/total concentration is not applicable.

Source: *Air Quality Impact Analysis*, Table 23, URS Corporation, August 26, 2009.

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FIGURE 4.3.4

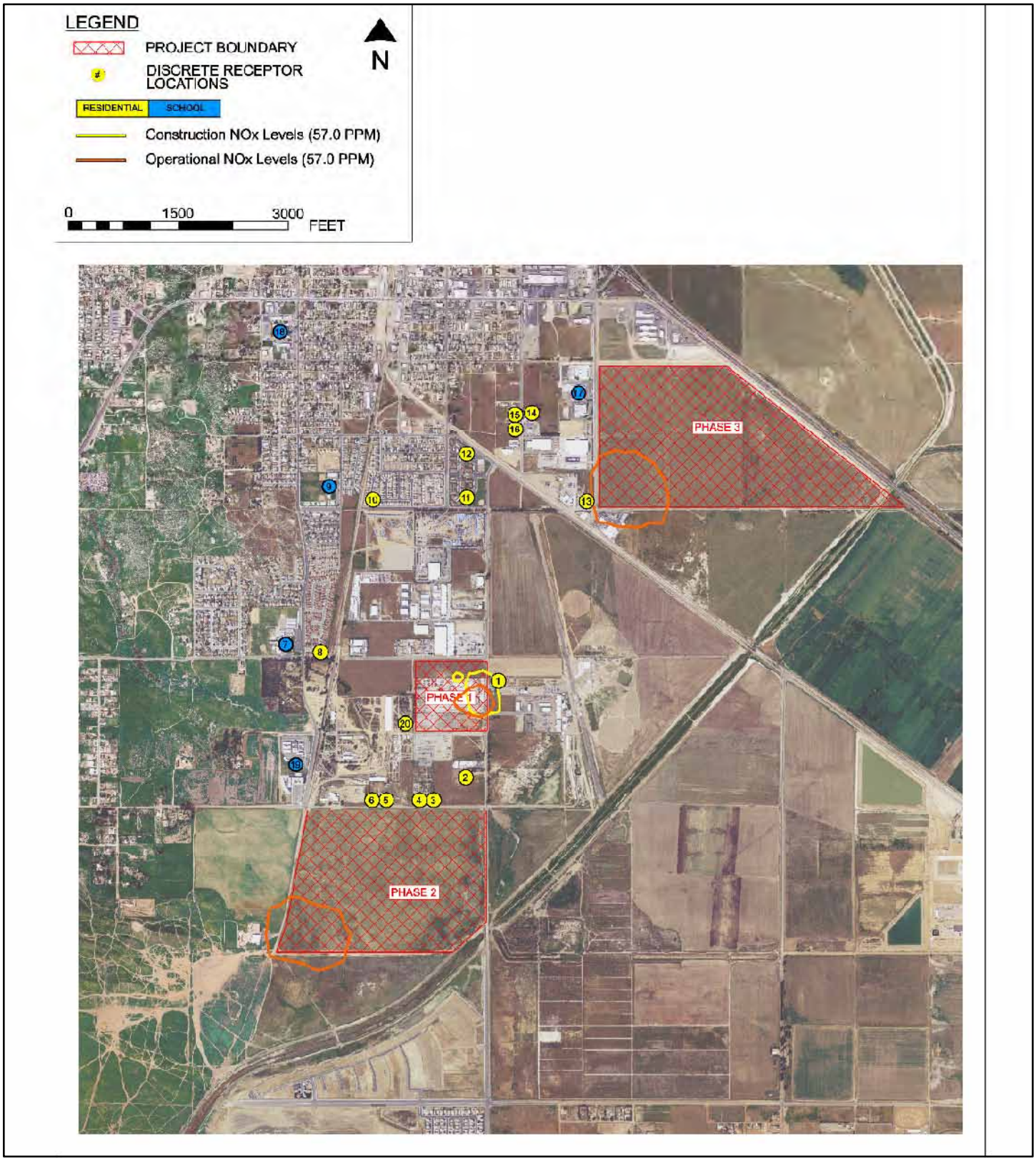
South Perris Industrial
Environmental Impact Report

Localized NO_x Emissions Contour Map
One-Hour Concentrations

SOURCE: URS, August 2009.

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FIGURE 4.3.5

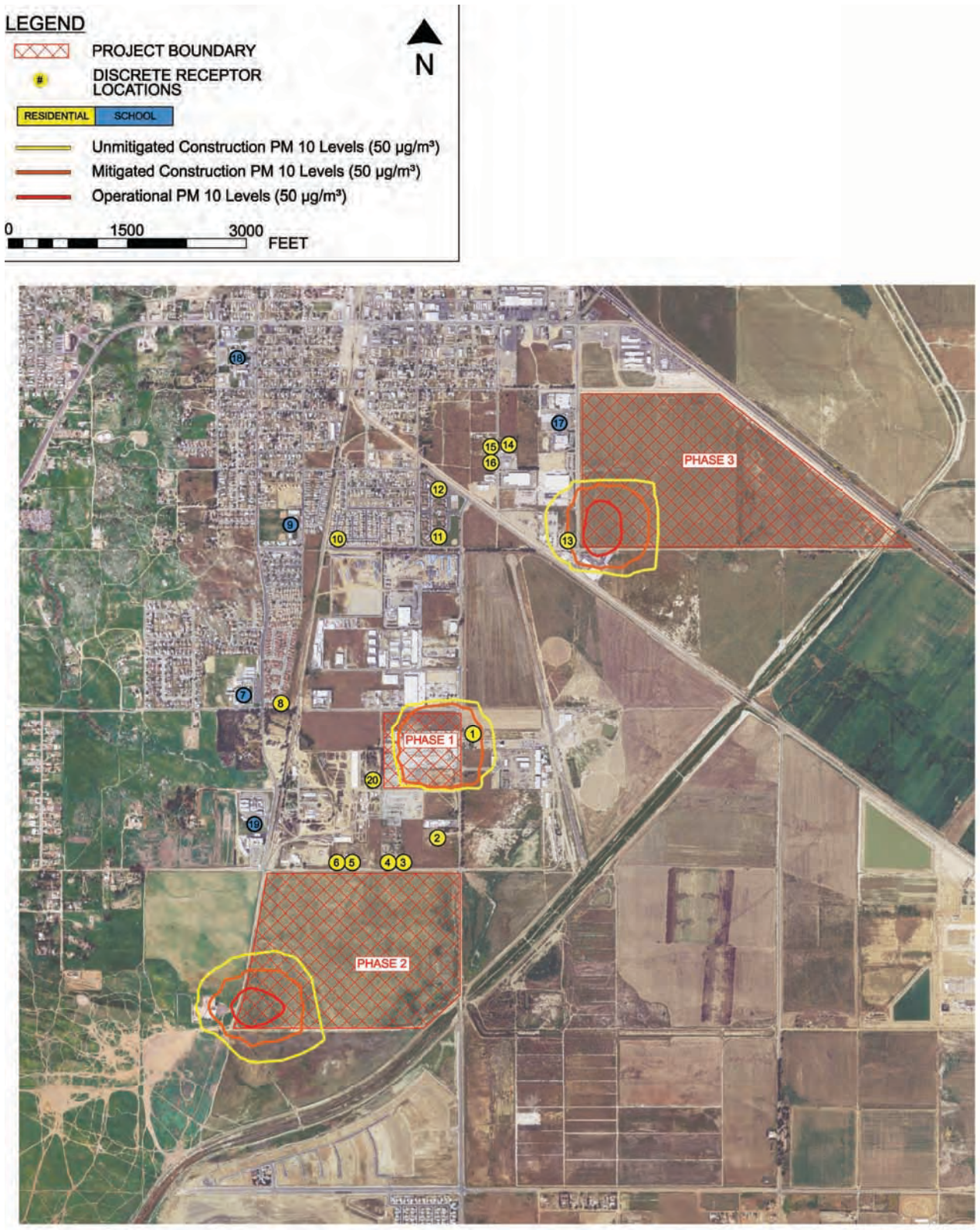
South Perris Industrial
Environmental Impact Report

SOURCE: AirPhoto USA (2008); URS (2009)

Annual NOx Emissions Countour Map

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FIGURE 4.3.6

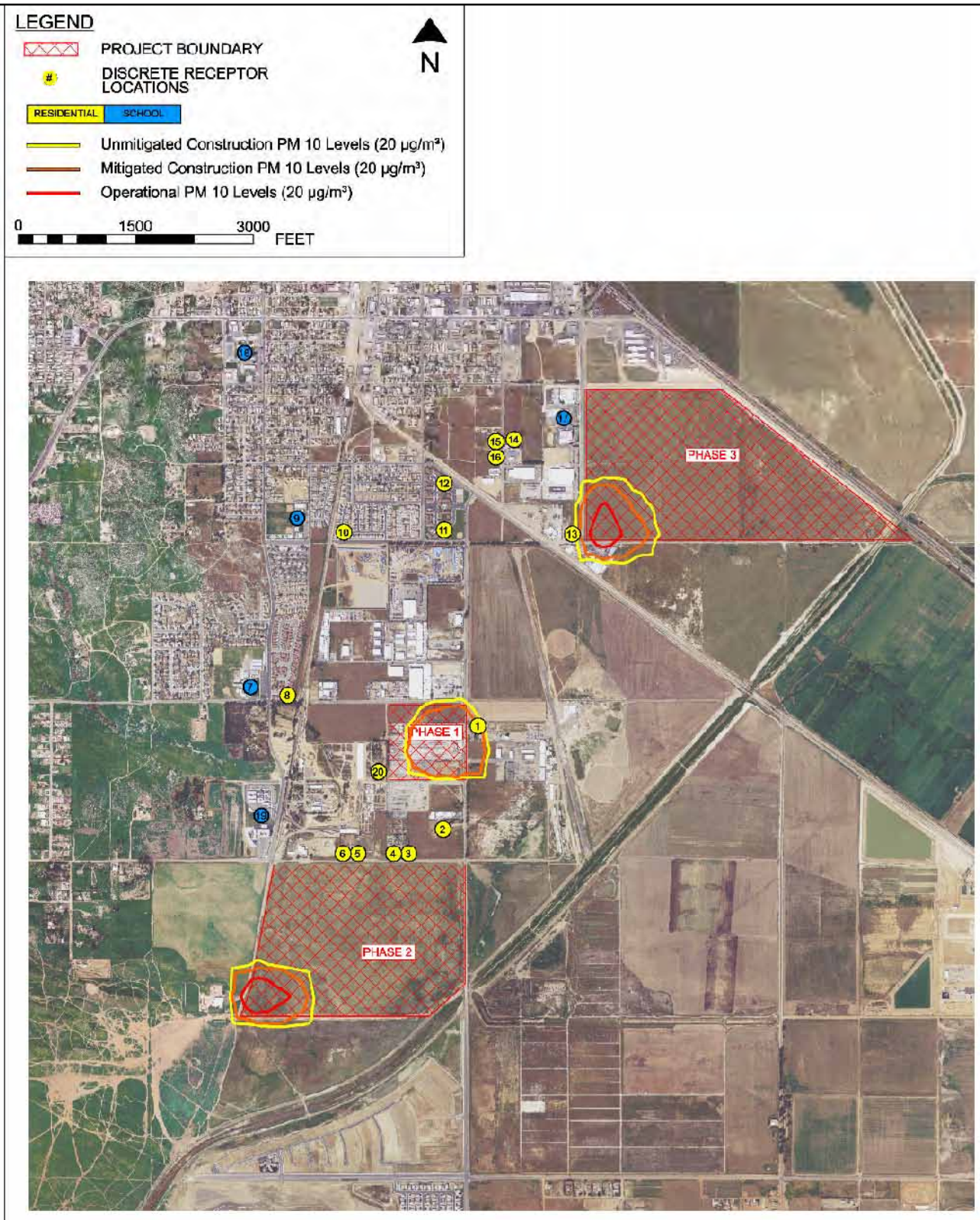
South Perris Industrial
Environmental Impact Report

Localized PM_{10} Emissions Contour Map
24-Hour Concentrations

SOURCE: URS, August 2009.

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FIGURE 4.3.7

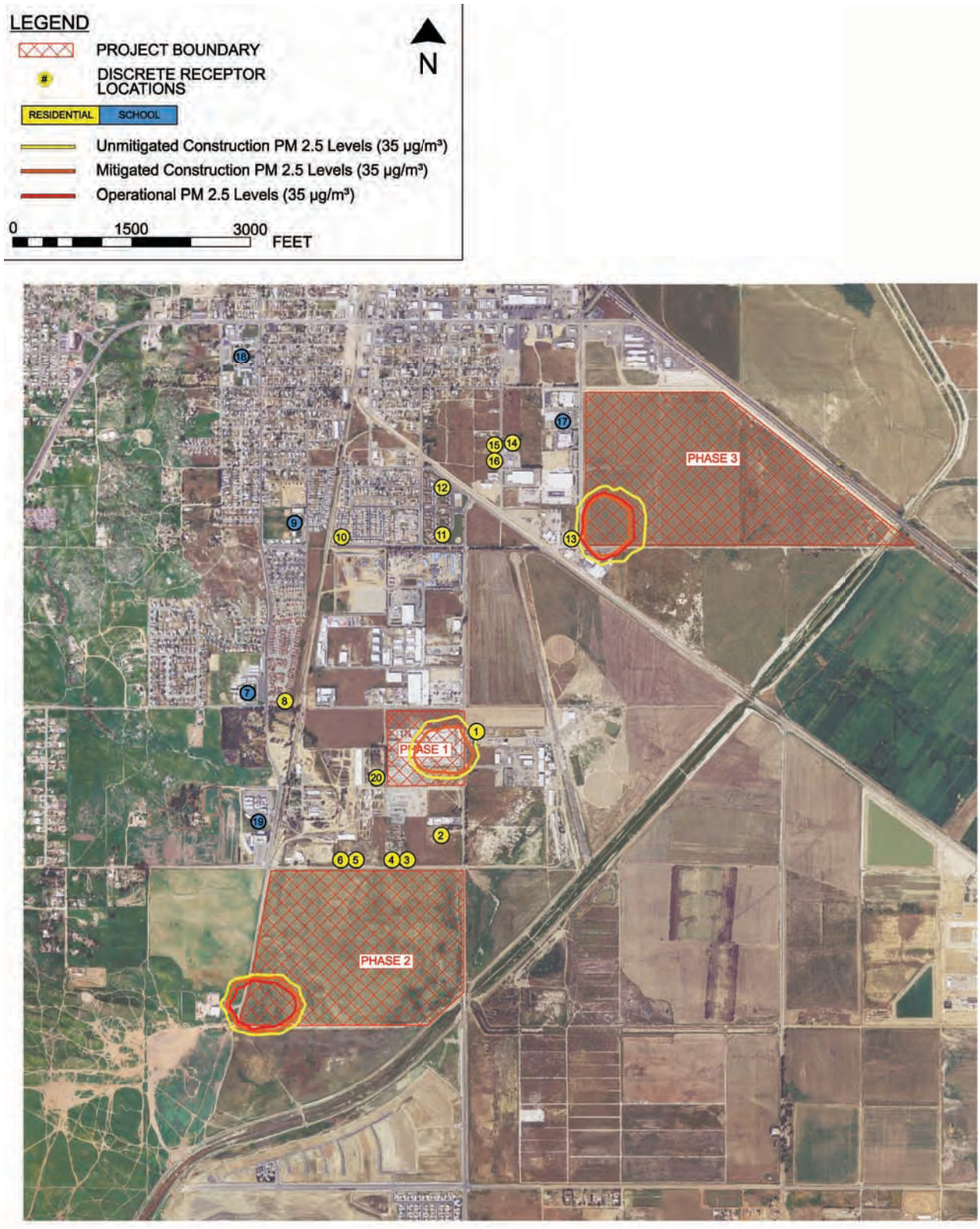
South Perris Industrial
Environmental Impact Report

Annual PM 10 Emissions Contour Map

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.8

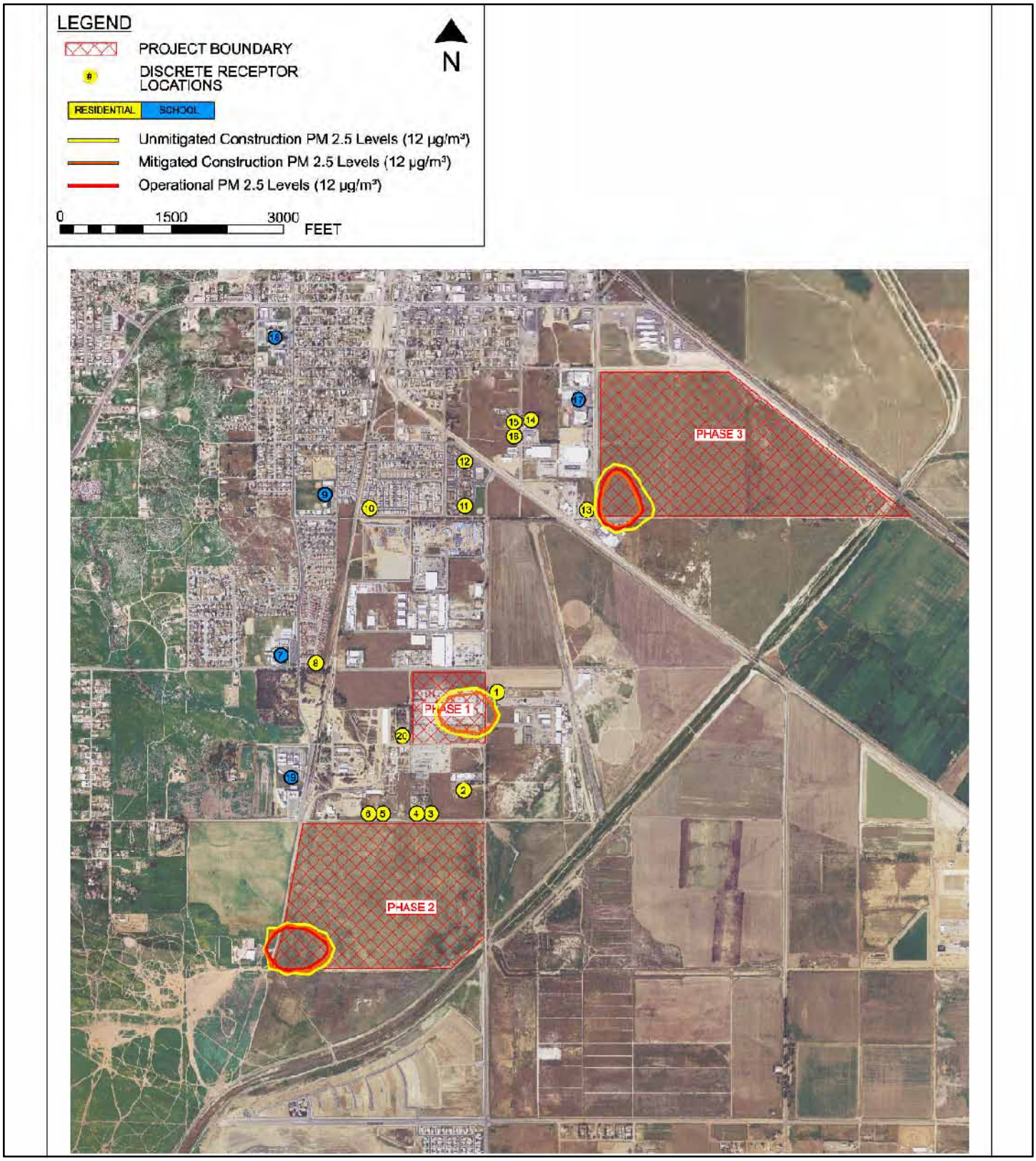
South Perris Industrial
Environmental Impact Report

Localized $PM_{2.5}$ Emissions Contour Map
24-Hour Concentrations

SOURCE: URS, August 2009.

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FIGURE 4.3.9

South Perris Industrial
Environmental Impact Report

Annual PM 2.5 Emissions Contour Map

SOURCE: AirPhoto USA (2008); URS (2009)

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4.3.6.5 Project-Related Localized Operational Emissions Impacts

Impact 4.3.6.5: *The proposed project would result in a net increase of criteria air pollutants generated during the operation of the proposed on-site uses. Emissions resulting from operational activities will exceed SCAQMD localized operational emissions thresholds.*

Threshold	Would the proposed project expose sensitive receptors to substantial pollutant concentrations? For long-term operations, the applicable daily thresholds at a sensitive receptor are: • NO_x concentration of 339 µg/m^3; • CO concentration of 23,000 µg/m^3; • PM_{10} concentration of 2.5 µg/m^3; and • $PM_{2.5}$ concentration of 2.5 µg/m^3.

The primary emissions from operational activities include, but are not limited to, NO_X and CO combustion emissions from stationary sources and/or on-site mobile equipment. Table 4.3.T identifies the calculated emissions for the proposed operational activities compared with the applicable localized significance thresholds identified above. Emissions levels were evaluated for on-site area and mobile source operations (LST guidance states that off-site mobile emissions from the project should not be included in emissions compared to LSTs). The localized significance analysis only includes on-site sources.

Table 4.3.T: Localized Project Operational Emissions Without Mitigation

	NO_2 (µg/m^3)	CO (µg/m^3)		PM_{10} (µg/m^3)	$PM_{2.5}$ (µg/m^3)
	Averaging Time				
	1-Hour	1-Hour	8-Hour	24-Hours	
Maximum Daily Localized Emissions	314.71[1]	2,866.85	1,839.62	101.02	92.95
Background Concentration[2]	0.09	4.0	3.0	N/A[3]	N/A[3]
Total Concentration	314.80	2,870.85	1,842.62	101.02	92.95
Localized Significance Threshold	**339**	**23,000**	**10,000**	**2.5**	**2.5**
Exceeds Threshold?	**No**	**No**	**No**	**Yes**	**Yes**

[1] The NO_2 portion of NO_X was calculated using a downwind distance of 50 meters, which corresponds to a NO_2/NO_X ratio of 0.059.
[2] Highest concentrations from the last five years of available data (Table 3).
[3] Since basin is in non-attainment for PM10 and PM2.5, threshold is established as an "allowable change" in concentration as recommended by the SCAQMD. Therefore background/total concentration is not applicable.
Shaded = Maximum localized operational emissions exceeded for the respective pollutant.

Source: *Air Quality Impact Analysis*, Table 15, URS Corporation, August 2009.

As indicated in Table 4.3.T, operational emission rates for NO_2 and CO are below the LST thresholds; however, operational emission rates for PM_{10} and $PM_{2.5}$ exceed the LST thresholds. Specifically, one residential receptor located adjacent to the Phase 3 site would be exposed to concentrations of PM_{10} and $PM_{2.5}$ that exceed the localized thresholds of significance. These emissions are a significant impact and require mitigation. Specific sensitive receptors that would be affected by PM_{10} and $PM_{2.5}$ emissions and the duration of exposure to these emissions during project operation are depicted in previously referenced Figures 4.3.6 through 4.3.9.

Mitigation Measures. Previously identified mitigation measures **4.3.6.3A** through **4.3.6.3C** would reduce impacts associated with localized project operational emissions of PM_{10}, and $PM_{2.5}$.

Level of Significance after Mitigation. Although implementation of **Mitigation Measures 4.3.6.3A** through **4.3.6.3C** may reduce emissions associated with the proposed project, it is not possible to quantify the reduction in the amount of emissions that may occur. During project operation, it is not known specifically what type of on-site equipment will be used (i.e. natural gas or propane fueled), therefore no additional reduction in operational emissions were taken. No other feasible mitigation measures have been identified to reduce the localized operational emissions of PM_{10}, and $PM_{2.5}$ to a less than significant level. Localized project operational emissions will continue to exceed thresholds.

Because the project site is located in a nonattainment air basin for criteria pollutants, the addition of air pollutants resulting from operation of the proposed project would contribute to the continuation of nonattainment status in the Basin. In the absence of mitigation to reduce the proposed project's localized emission contribution of PM_{10}, and $PM_{2.5}$ to below SCAQMD LST thresholds, potential long-term air quality impacts resulting from the operation of the proposed project will remain significant and unavoidable.

4.3.6.6 Carcinogenic and Chronic Project-Related Emission Impacts

Impact 4.3.6.6: *The proposed project would expose nearby sensitive receptors to substantial diesel particulate matter emissions that may contribute to carcinogenic and chronic cancer risks.*

Threshold	Would the proposed project expose a substantial number of people to substantial pollutant concentrations? For Maximum Individual Cancer Risk, the applicable thresholds are: • An increased cancer risk greater than 10 in 1 million (1.0×10^{-5}) at any receptor location; or • A cancer burden greater than 0.5. For non-cancer acute and chronic hazard indices (HI); the applicable threshold is: • A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Construction Health Risk Impacts. Emissions resulting from infrastructure improvements (including the extension of the rail spur to the Phase 2 site) are accounted for in the construction emissions analysis, localized construction emissions analysis, and health risk assessment. The only toxic air pollution emissions in any significant quantity associated with the construction of the proposed project occur from large, heavy-duty diesel-powered equipment exhaust. While there will be other toxic substances in use on site, compliance with State and Federal handling regulations control emissions to below a level of significance. The OEHHA currently describes the health risk from diesel exhaust entirely in terms of the amount of PM_{10} that is emitted. Currently, the health risk associated with diesel exhaust PM_{10} only has a carcinogenic and chronic effect; no short-term acute effect is recognized.

The construction period of the project lasts only a short time, relative to the length of time required for carcinogenic and chronic health impacts. As previously identified, health risk calculations for diesel exhaust (both cancer and non-cancer) are based on risk values established by the OEHHA for chronic exposure durations of 24 hours/day for 70 years for conforming uses that are considered sensitive receptors. Because sensitive receptors would not be exposed to emissions resulting from construction activities for a significant duration, a construction health risk analysis was not warranted.

Operational Health Risk Impacts. The extension of the rail spur to the Phase 2 site is included in the operational emissions analysis and the localized operational emissions analysis. Rail activity as a result of the project would emit pollutants during operation and is therefore accounted for in the analysis. Long-term operational emissions would result from the operation of diesel-powered trucks and train engines delivering and removing supplies and materials to and from the project site, and the use of diesel-powered forklifts and hostlers typically associated with industrial warehouse uses. The primary health risk from heavy-duty trucks, train engines, and warehouse equipment emissions is diesel particulate exhaust. In order to assess the potential impact of DPM on sensitive receptors in the project vicinity, air quality modeling utilizing ISCST3 was performed. The model is a steady state Gaussian plume model and is approved by the EPA for estimating ground level concentrations from point and fugitive sources in simple and complex terrain.

Modeling for the *Health Risk Assessment* (HRA)[1] uses conservative estimates of concentrations considering site and source geometry, source strength, distance to receptor, and building wake effects on plume distribution. Please refer to the HRA, Appendix C-3, for a further discussion of the air dispersion modeling and health risk assessment parameters conducted for this project.

For the purposes of this analysis, the cancer risk from a 70-year lifetime exposure to project DPM emissions was conducted. The 70-year exposure represents a conservative worst-case analysis of project impacts to legal, conforming land uses.

Figures 4.3.10 and 4.3.11 show the unmitigated 70-year cancer risk contour lines from project-generated DPM emissions to the 20 sensitive receptors in the project vicinity. For 70-year exposure, the orange line represents a DPM concentration of 0.07839 µg/m^3, corresponding to an excess cancer risk of 25 per million. The red line represents a DPM concentration of 0.15678 µg/m^3, corresponding to an excess cancer risk of 50 per million. The area surrounding the majority of the project site is zoned and designated for industrial land uses under the City's General Plan, which are not considered sensitive receptors, except for the residential land use to the west of the Phase 2 site. However there are several existing residences in the project vicinity, which are considered sensitive receptors. As shown in Figures 4.3.10 and 4.3.11, without mitigation, all areas in the immediate project vicinity will be exposed to DPM concentrations that exceed the SCAQMD cancer risk threshold of 10 per million.

The DPM concentration estimated at the discrete receptor locations was used to identify the maximum cancer risk and chronic non-cancer hazard index. As shown in Table 4.3.U the maximum 70-year cancer risk from the project's DPM emissions is approximately 469 in one million to the sensitive receptor located directly north of Phase 2, based on both the 2013 and 2030 truck distribution. This is a significant impact requiring mitigation.

Table 4.3.U: 70-Year Estimation of Cancer Risk from Exposure to DPM, Unmitigated

Receptor Location	Receptor Description	2013 Truck Distribution		2030 Truck Distribution	
		C_{air} (µg/m^3)	Carcinogenic Risk (per million)	C_{air} (µg/m^3)	Carcinogenic Risk (per million)
1	Residential	1.4400	**459.18**	1.4400	**459.18**
2	Residential	1.0800	**344.39**	1.0744	**342.60**
3	Residential	1.4700	**468.75**	1.4687	**468.32**
4	Residential	1.3900	**443.24**	1.3843	**441.43**
5	Residential	1.2500	**398.60**	1.2442	**396.75**
6	Residential	1.2600	**401.79**	1.2550	**400.19**

[1] *Health Risk Assessment, Proposed South Perris Industrial, City of Perris*, URS Corporation, December 30, 2008.

Table 4.3.U: 70-Year Estimation of Cancer Risk from Exposure to DPM, Unmitigated

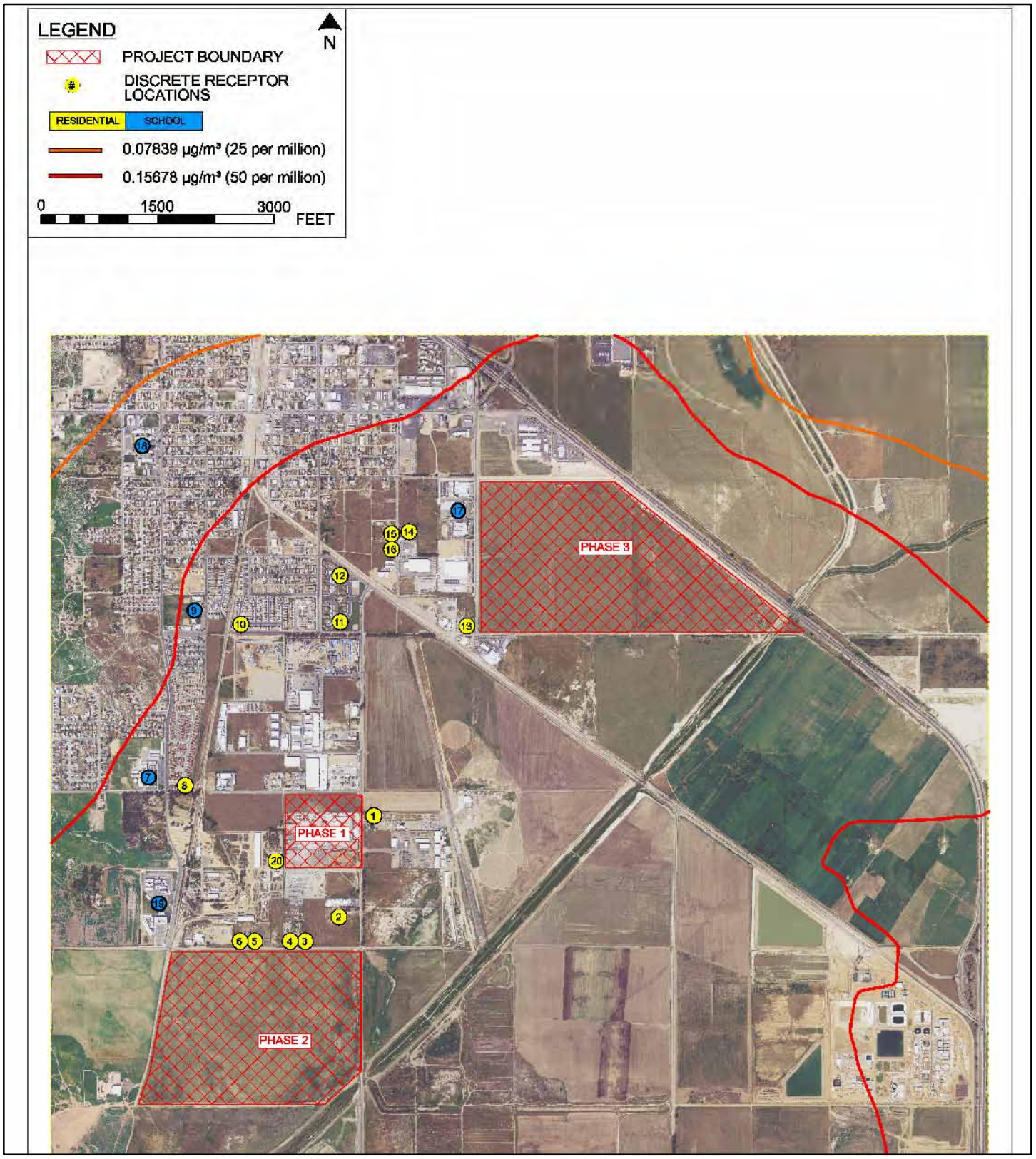
Receptor Location	Receptor Description	2013 Truck Distribution		2030 Truck Distribution	
		C_{air} ($\mu g/m^3$)	Carcinogenic Risk (per million)	C_{air} ($\mu g/m^3$)	Carcinogenic Risk (per million)
7	Pinacate Middle School	0.2012	**64.15**	0.2008	**64.03**
8	Residential	0.2561	**81.68**	0.2557	**81.54**
9	Perris Lake High	0.1685	**53.72**	0.1683	**53.67**
10	Residential	0.1947	**62.10**	0.1954	**62.32**
11	Residential	0.3171	**101.11**	0.3131	**99.83**
12	Residential	0.3282	**104.67**	0.3254	**103.76**
13	Residential	1.2400	**395.41**	1.2359	**394.10**
14	Residential	0.4394	**140.11**	0.4382	**139.73**
15	Residential	0.4082	**130.17**	0.4070	**129.78**
16	Residential	0.4453	**141.99**	0.4432	**141.31**
17	The Academy High/ Day School	0.7504	**239.29**	0.7499	**239.12**
18	Perris Elementary School	0.0991	**31.59**	0.0989	**31.54**
19	Railway Elementary / Rob Reiner Center School	0.3898	**124.31**	0.3892	**124.09**
20	Residential	0.8287	**264.24**	0.8278	**263.97**

Note: The SCAQMD threshold of significance is 10 per million and values exceeding this threshold are shown in **bold**.
Source: *Health Risk Assessment Proposed South Perris Industrial, City of Perris, Table 4,* URS Corporation, August 11, 2009.

Since most of the areas surrounding the project site are designated for industrial uses, it is also appropriate to look at what the risks to an off-site worker would be from the project. Future development of the adjacent industrially zoned area would result in the placement of workers in close proximity to DPM emitting uses located within the limits of the proposed project site. Impacts resulting from the construction and occupation of the adjacent industrial designated property would be fully addressed in the environmental document for that project. While CEQA generally discourages the use of speculation in EIRs, the following discussion provides data on conditions that *may* occur if the property located to the south of Phase 2 were developed as currently proposed. The following discussion is speculative and is included for information purposes only. It must not be used to assess impacts associated with the construction or operation of the adjacent industrial uses or to assign mitigation on the proposed project.

Figures 4.3.12 and 4.3.13 illustrate the cancer risk contour lines from project-generated DPM emissions to off-site workers in the project vicinity. The yellow line represents a DPM concentration of 0.16056 $\mu g/m^3$, corresponding to an excess cancer risk of 10 per million. The orange line represents a DPM concentration of 0.40140 $\mu g/m^3$, corresponding to an excess cancer risk of 25 per million. The red line represents a DPM concentration of 0.80280 $\mu g/m^3$, corresponding to an excess cancer risk of 50 per million. As depicted in Figures 4.3.12 and 4.3.13, all areas in the immediate project vicinity will be exposed to DPM concentrations which exceed the SCAQMD cancer risk threshold of 10 per million. This is a significant impact requiring mitigation.

Mitigation Measures. In an effort to reduce the carcinogenic and chronic project-related emissions impacts of the project, the following mitigation measures shall be implemented.



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FIGURE 4.3.10

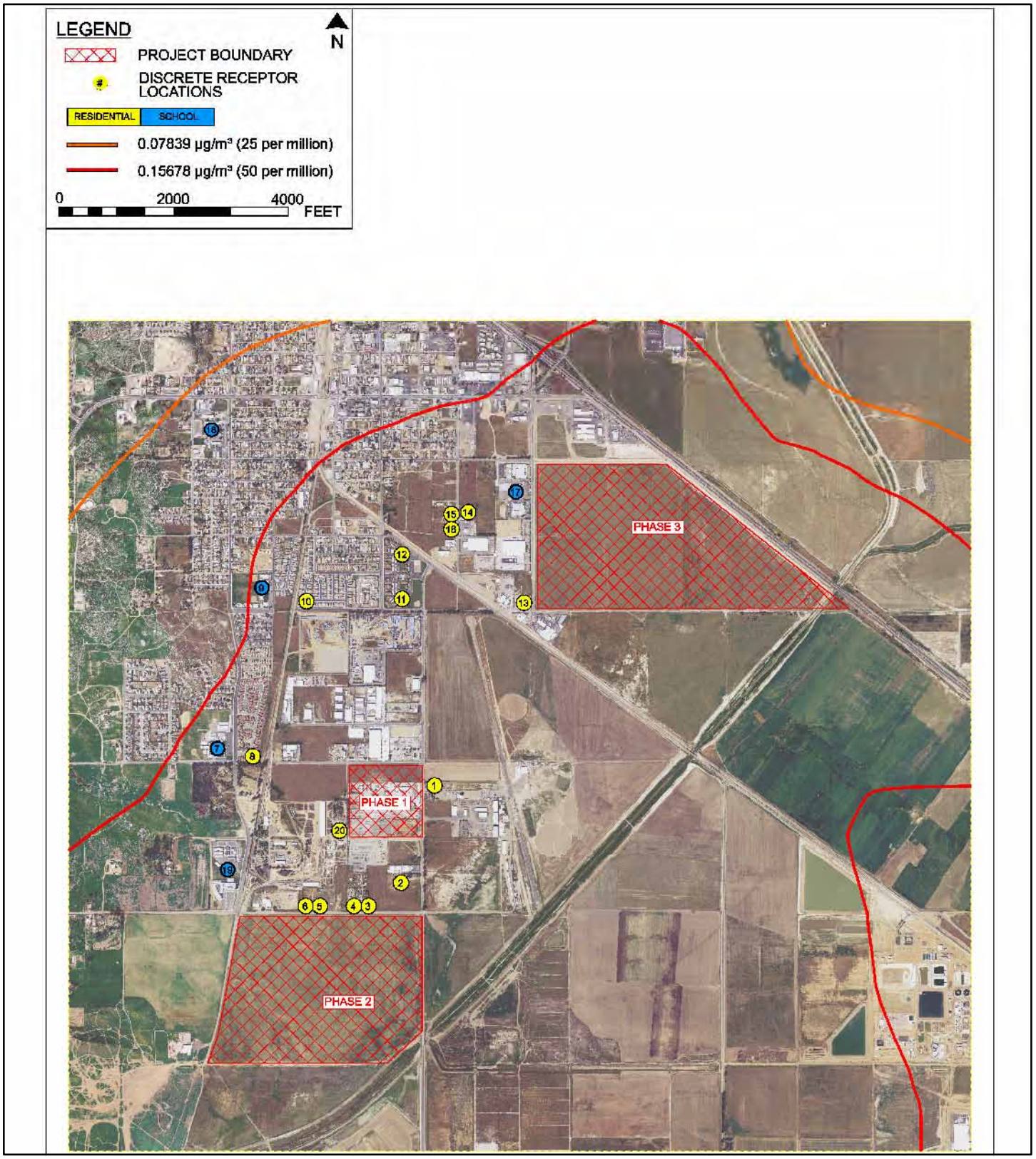
South Perris Industrial
Environmental Impact Report

DPM Cancer Risk Contour Map
2013 Truck Distribution
Sensitive Receptor, Unmitigated

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.11

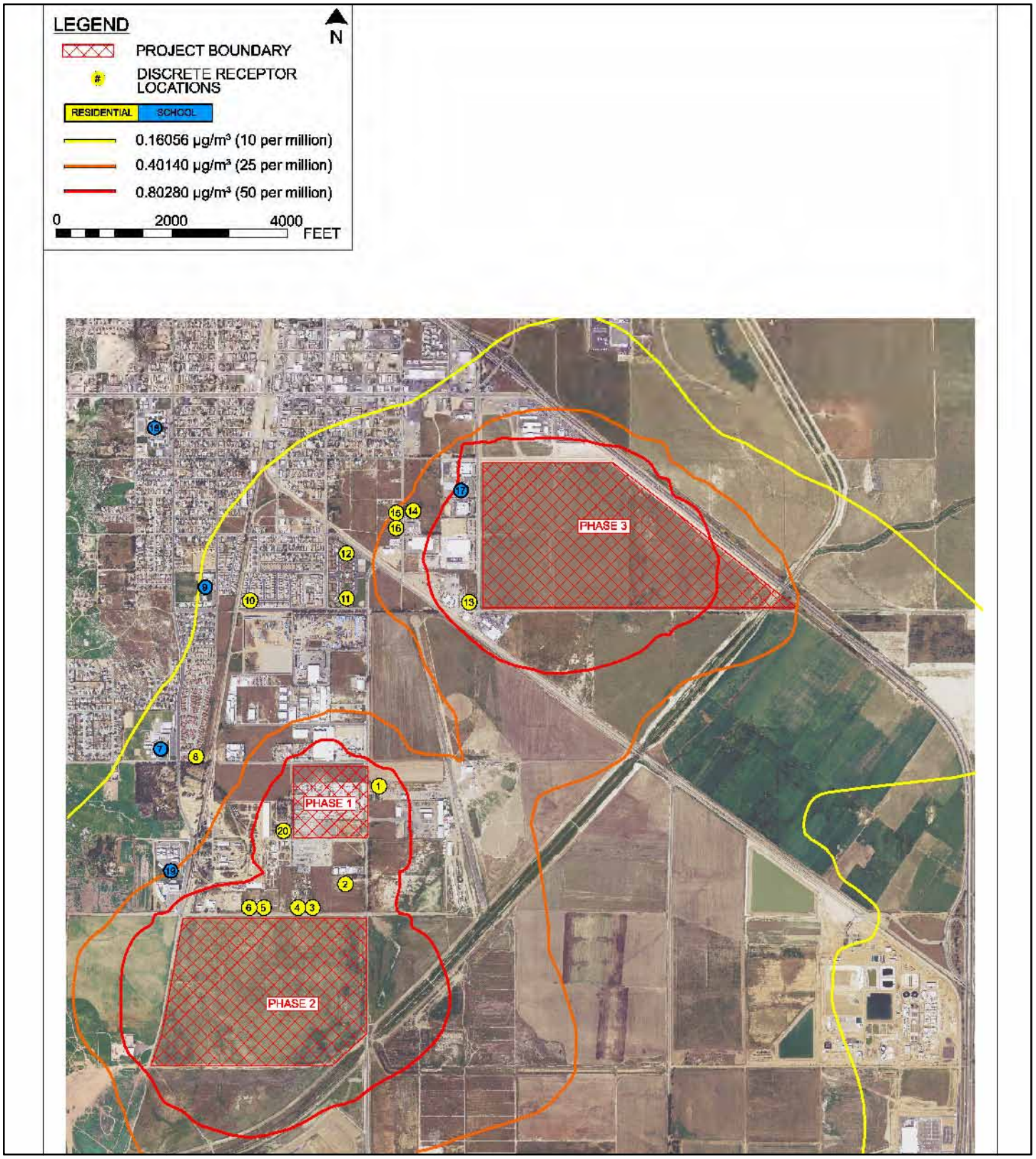
South Perris Industrial
Environmental Impact Report

DPM Cancer Risk Contour Map
2030 Truck Distribution
Sensitive Receptor, Unmitigated

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.12

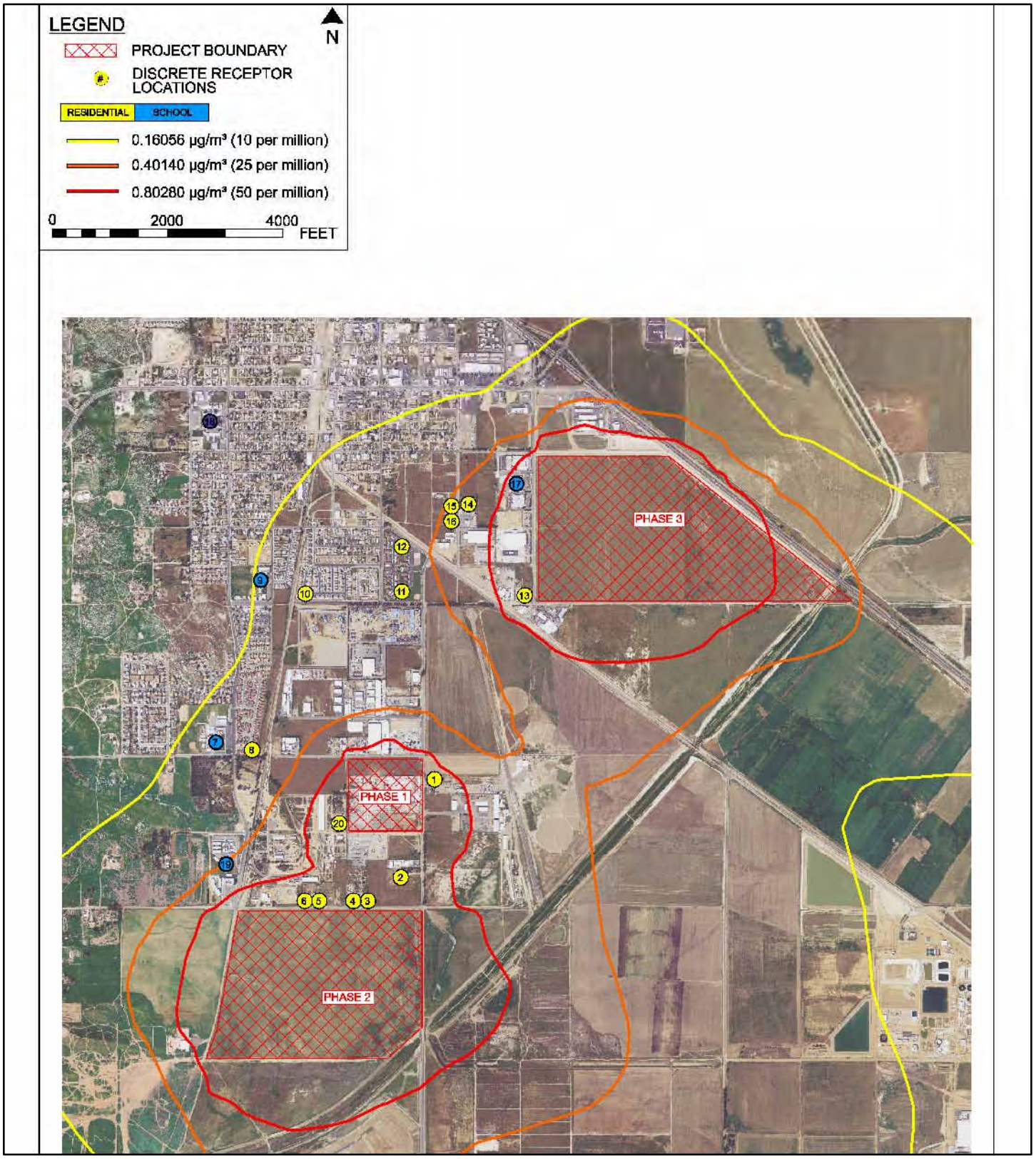
South Perris Industrial
Environmental Impact Report

Unmitigated DPM Cancer Risk Contour Map
for Off-site Workers - 2013 Truck Distribution

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.13

South Perris Industrial
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Unmitigated DPM Cancer Risk Contour Map for Off-site Workers - 2030 Truck Distribution

SOURCE: AirPhoto USA (2008); URS (2009)

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4.3.6.6A In order to reduce the project's operational DPM emissions, signs shall be posted on the site in loading bay areas informing truck drivers of the California Air Resources Board regulations that limit truck idling to no more than 5 minutes.

4.3.6.6B In order to reduce the project's operational DPM emissions, electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary idling of main and auxiliary truck engines.

4.3.6.6C In order to reduce the project's operational DPM emissions, all on-site forklifts shall not be diesel powered.

4.3.6.6D If the locomotives that serve the Phase 2 site are not equipped with anti-idling devices, an idling restriction shall be enforced by developer/successor-in-interest. Locomotives not equipped with anti-idling devices shall be manually limited to no more than 15 consecutive minutes of idling.

4.3.6.6E The developer/successor-in-interest for the Phase 2 site shall establish a complaint line for complaints regarding smoke, noise, and idling in excess of 15 minutes for locomotives idling on the Phase 2 site. This complaint line shall be a toll free 1-800 number and posted on signs within the Phase 2 site.

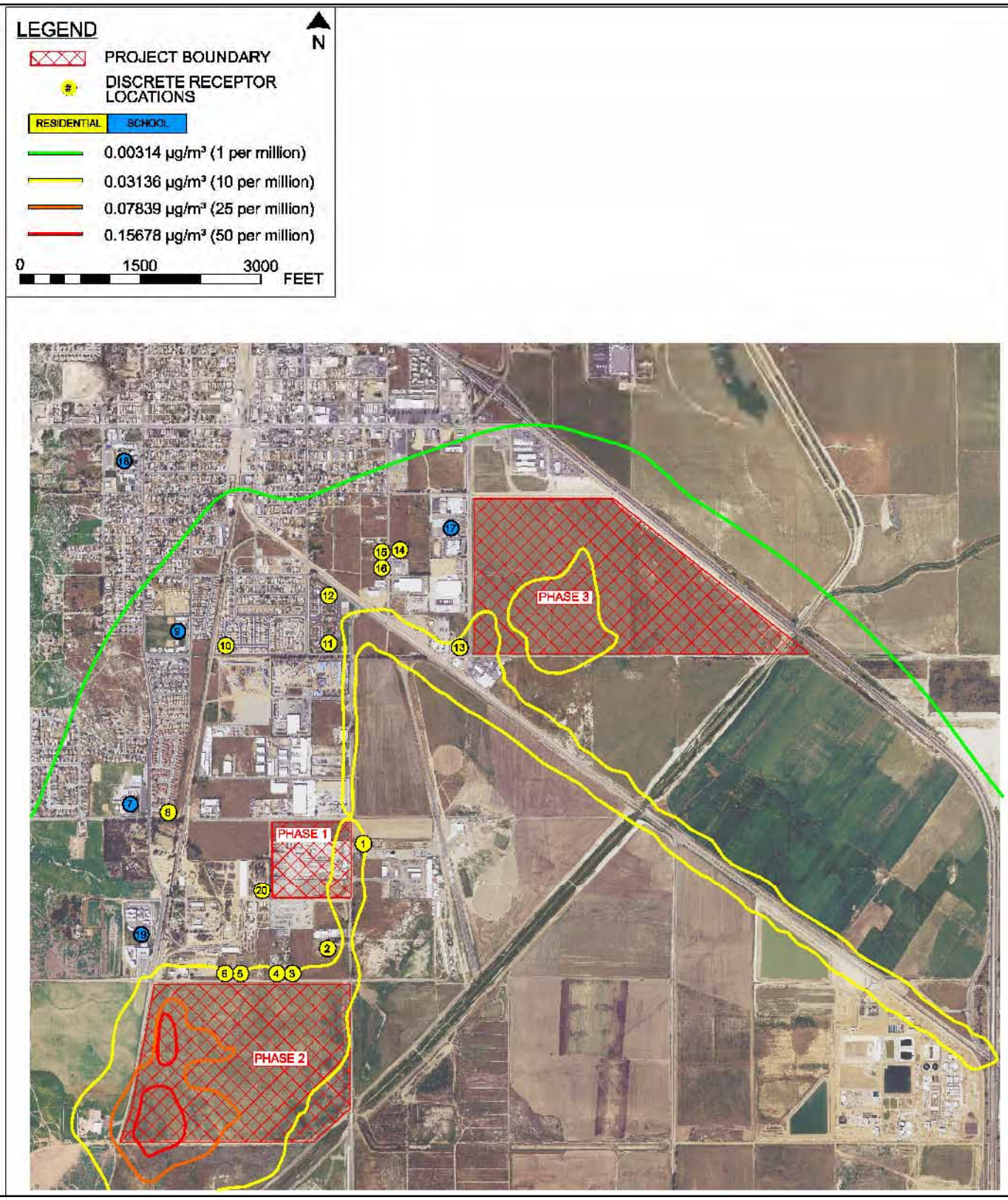
Level of Significance After Mitigation. The mitigation measures listed above will reduce the DPM emissions from the project. By eliminating the use of diesel on-site forklifts, the DPM emissions from these pieces of equipment will not be generated and released by the project. The estimated cancer risk and hazard index after mitigation measures are implemented are detailed in Tables 4.3.V and 4.3.W. The mitigated cancer risk contours are shown in Figures 4.3.14 through 4.3.17.

Table 4.3.V: 70-Year Estimation of Cancer Risk from Exposure to DPM, Mitigated

Receptor Location	Receptor Description	2013 Truck Distribution		2030 Truck Distribution	
		C_{air} ($\mu g/m^3$)	Carcinogenic Risk (per million)	C_{air} ($\mu g/m^3$)	Carcinogenic Risk (per million)
1	Residential	0.03094	9.87	0.02802	8.93
2	Residential	0.01835	5.85	0.0169	5.39
3	Residential	0.02774	8.85	0.0236	7.53
4	Residential	0.0294	9.38	0.02451	7.82
5	Residential	0.02946	9.39	0.02503	7.98
6	Residential	0.03057	9.75	0.02811	8.96
7	Pinacate Middle School	0.00528	1.68	0.00493	1.57
8	Residential	0.00666	2.12	0.00623	1.99
9	Perris Lake High	0.00437	1.39	0.0042	1.34
10	Residential	0.00703	2.24	0.00773	2.46
11	Residential	0.01413	4.51	0.01015	3.24
12	Residential	0.00692	2.21	0.00509	1.62
13	Residential	0.03051	9.73	0.02469	7.87
14	Residential	0.00633	2.02	0.00512	1.63
15	Residential	0.00612	1.95	0.00489	1.56
16	Residential	0.00749	2.39	0.00558	1.78
17	The Academy High / Day School	0.00646	2.06	0.00707	2.25
18	Perris Elementary School	0.00186	0.59	0.00172	0.55
19	Railway Elementary / Rob Reiner Center School	0.01578	5.03	0.01143	3.64
20	Residential	0.01272	4.06	0.0122	3.89

Note: The SCAQMD threshold of significance is 10 per million and values exceeding this threshold are shown in bold in 4.3.DD.
Source: *Health Risk Assessment Proposed South Perris Industrial, City of Perris, Table 6,* URS Corporation, August 11, 2009.

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FIGURE 4.3.14

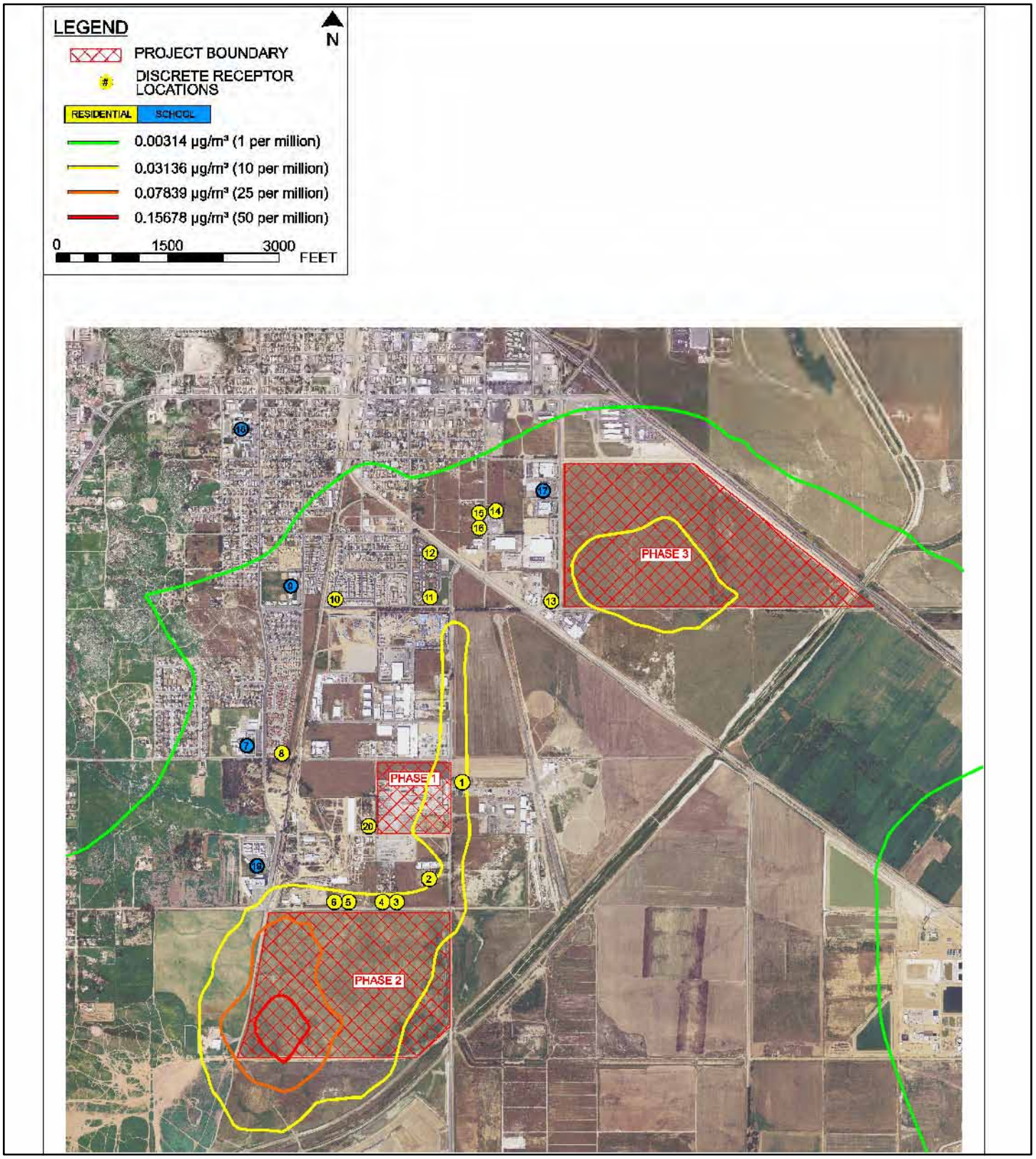
South Perris Industrial
Environmental Impact Report

DPM Cancer Risk Contour Map
2013 Truck Distribution
Sensitive Receptor, Mitigated

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.15

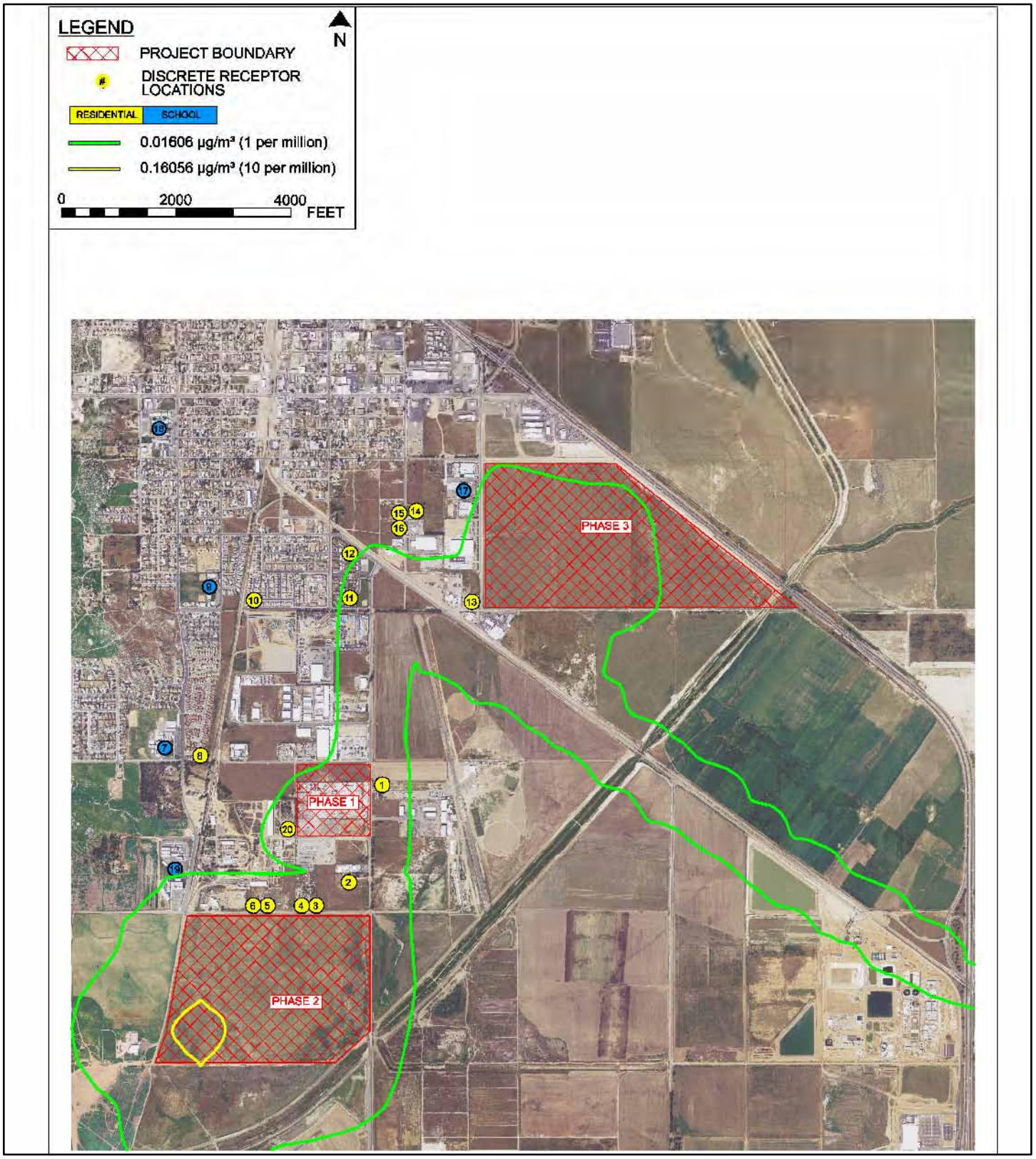
South Perris Industrial
Environmental Impact Report

DPM Cancer Risk Contour Map
2030 Truck Distribution
Sensitive Receptor, Mitigated

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.16

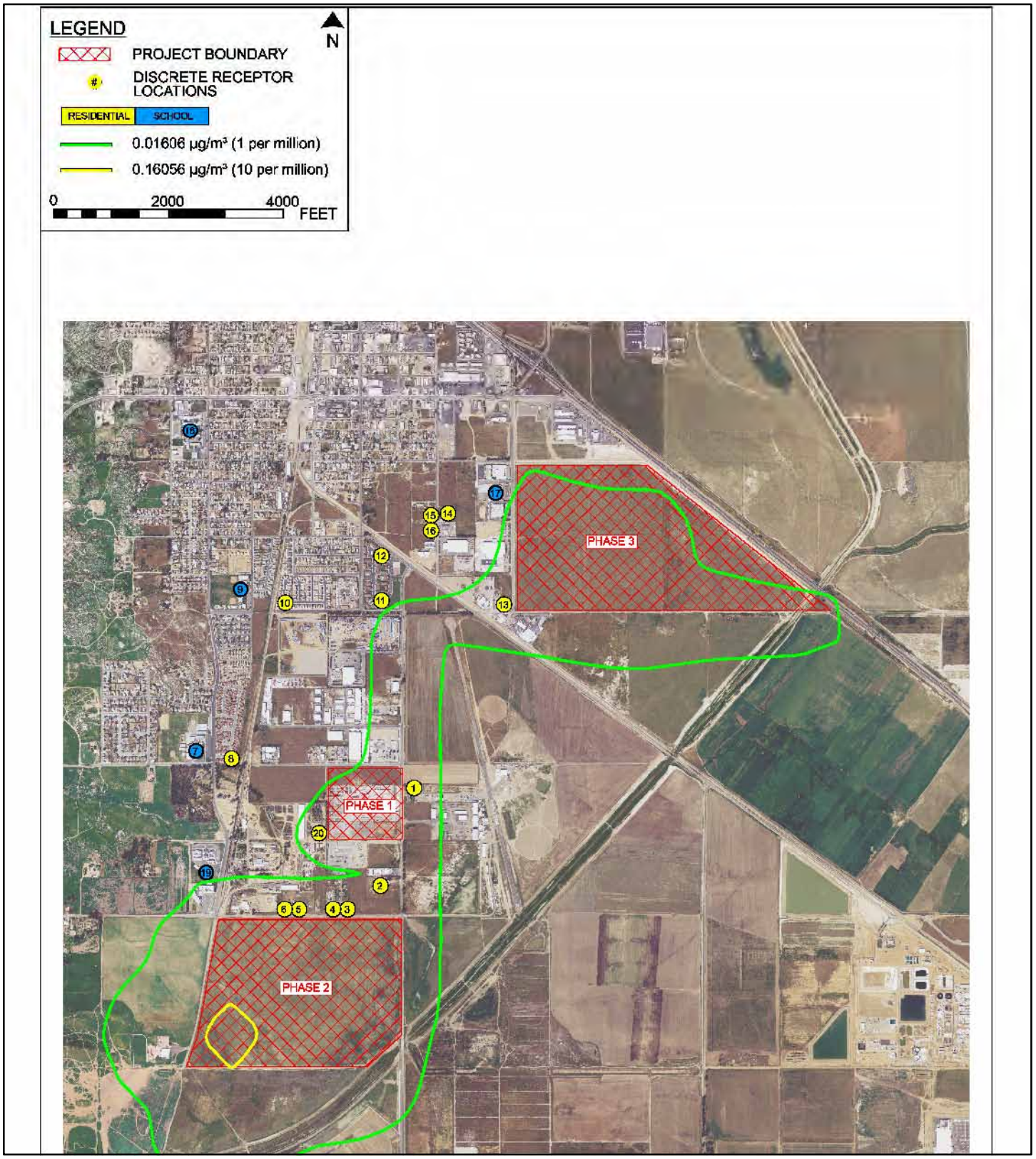
South Perris Industrial
Environmental Impact Report

Mitigated DPM Cancer Risk Contour Map
for Off-site Workers - 2013 Truck Distribution

SOURCE: AirPhoto USA (2008); URS (2009)

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FIGURE 4.3.17

South Perris Industrial
Environmental Impact Report

Mitigated DPM Cancer Risk Contour Map
for Off-site Workers - 2030 Truck Distribution

SOURCE: AirPhoto USA (2008); URS (2009)

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With implementation of the mitigation measures listed above, the project's 70-year cancer risk impacts to the existing sensitive receptors will not exceed the SCAQMD cancer risk threshold for the 2013 and 2030 scenarios. For a 70-year exposure duration, implementation of **Mitigation Measures 4.3.6.6.A** through **4.3.6.6.E~~C~~** will reduce DPM emission levels to all 20 sensitive receptors to a less than significant level. The 70-year maximum cancer risk is reduced to 9.87 in one million, based on the 2013 interim truck distribution and 8.93 in one million, based on the 2030 long-range truck distribution, both of which do not exceed the threshold of 10 in one million. In addition, it should be noted that because determining a human being's potential chance of developing cancer is based on a continuous 70-year exposure, the cancer exposure numbers stated above likely overstate the chances of the identified sensitive receptors' likelihood of contracting cancer due to the fact that these sensitive receptors will not likely be subject to continuous 70-year exposure. In addition, because CEQA is concerned with a project's effect on the environment in general and not on a project's impact on particular persons, it would conclude that the project's impacts on human health would be deemed to be less than significant.

Due to the fact that these sensitive receptors will not likely be subject to continuous 70-year exposure, the amount of time that any receptor would be exposed to diesel emissions would be reduced. The average period of U.S. residency at any one location is approximately 9 years, and the 90^{th} percentile of U.S. residency (typically used by the EPA in "reasonable maximum exposure" estimates) is approximately 30 years. Similarly, as previously stated, several of the sensitive receptors in the area are not in conformance with the City of Perris General Plan. Residences are considered sensitive uses as long as people reside in them. Since these residences are relatively old and non-conforming, the City will not allow any improvements that may increase the usefulness or lifespan of the structures. The City assumes that these residences will not be occupied by the end of the 2030 General Plan timeframe. It can be assumed that occupants of these units would only be exposed to project-generated emissions for 20 or fewer years.

Diesel emissions identified in this EIR substantially overstate future particulate emissions from diesel engines as cleaner engines required by law in the near future will be substantially cleaner than those existing in current fleets. Considering the 70-year time period over which cancer risk exposure is estimated, applying the average heavy-duty diesel truck particulate matter emissions rate over a 70-year period using data available from the emission control program identified above is estimated to reduce cancer risk by 50 percent. In addition, with implementation of the three truck emissions programs identified in Section 4.3.2.5, carcinogenic emissions estimates for the project would be reduced even further.

As a conservative measure the SCAQMD does not recognize indoor adjustments for residents. However, studies have indicated that the typical person spends approximately 87 percent of the time indoors, 5 percent of the time outdoors, and 7 percent of the time in vehicles. In addition, residences without an indoor source of diesel exhaust are expected to have lower levels of DPM. A DPM exposure assessment indicated that the average indoor concentrations were 2.0 $\mu g/m^3$, compared with an outdoor concentration of 3.0 $\mu g/m^3$.

Toxicity estimates are derived either from observations in humans or from projection of information derived from experiments with laboratory animals. Human data are often uncertain because of the difficulty of estimating exposures associated with the health effect of interest, because of insufficient numbers of people studies, because relatively high occupational exposures must be extrapolated to low environmental exposures, or because the population studies may be more or less susceptible than the population as a whole. Cancer risk coefficients from human data are typically considered best estimates and are applied without safety factors. Cancer risk is typically considered proportional to pollutant concentration at any level of exposure (i.e., a linear, no-threshold model), which is conservative at low environmental doses. For non-cancer effects, the lowest exposure known to cause effects in humans is usually divided by uncertainty or safety factors to account for variations in susceptibility and other factors. When toxicity estimates come from animal data, they usually involve

extra safety factors to account for possibly greater sensitivity in humans, and the less-than-human-lifetime observations in animals. Overall, the toxicity assumptions and criteria used in this risk assessment are biased toward overestimating risk.

4.3.7 Cumulative Impacts

4.3.7.1 Short-Term Air Quality Impacts

The cumulative area for air quality impacts is the South Coast Air Basin. The project would contribute criteria pollutants to the area during project construction. The South Coast Air Basin is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone at the present time; therefore, the construction of the proposed project would exacerbate nonattainment of air quality standards within the South Coast Air Basin and contribute to adverse cumulative air quality impacts. As discussed previously, the project construction-related emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ would exceed the SCAQMD's recommended thresholds of significance. Therefore, these emissions would be cumulatively considerable.

4.3.7.2 CO Hot Spot Impacts

As indicated in previously referenced Section 4.3.5.1, no significant CO hot spot impacts would occur. It is anticipated that CO emissions in the future year will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Based on the analysis, because no CO hot spot impacts would occur, it is reasonable to assume that a less than significant cumulative CO impact would occur.

4.3.7.3 Long-Term Air Quality Impacts

Previously identified the long-term operation of the project would exceed the thresholds of significance for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ and would contribute to long-term regional air pollutants despite implementation of mitigation measures. The South Coast Air Basin is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone at the present time; therefore, the operation of the proposed project would exacerbate the current nonattainment of air quality standards within the South Coast Air Basin and contribute to adverse cumulative air quality impacts. Implementation of the proposed project would unavoidably contribute to significant cumulative air quality impacts for the immediate future. As discussed in Section 4.3.5.1, the proposed project has been determined to be compliant with the 2007 AQMP goals. The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. The Final 2007 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve Federal standards for healthful air quality in the Basin. As previously discussed the AQMP considers the planned land uses and growth within the Basin based on the General Plan land uses that area proposed. Therefore land uses that may have significant air quality impacts are considered within the AQMP in addition to land uses within the Basin that may have no impacts. As all projects and growth are considered and not just a single project it is possible for a balance to be achieved over the 20-year time horizon and thus a project can be consistent with the strategies included in the AQMP while having air quality impacts without reducing the potential for the achievement of AQMP goals.

4.3.7.4 Diesel Particulates

The study included in the document *Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant* (June 1998) estimated that the population-weighted average outdoor diesel exhaust PM_{10} concentration in California for 1995 was 2.2 micrograms per cubic meter ($\mu g/m^3$), with it reaching as high as 10 $\mu g/m^3$ near a freeway. These concentrations of diesel particulates present a carcinogenic health risk ranging from 130 in 1 million to 2,400 in 1 million (using a 70-year exposure duration). The study suggests that virtually all residents of California are being exposed to large doses of diesel exhaust PM_{10}. The concentration of diesel particulates at the project site is above the established risk threshold. Individuals living and working in southern California may be exposed to levels of diesel emissions that are cumulatively significant. This circumstance is also created by the project. The proposed project will generate new truck trips and new rail trips; the generation of new truck trips and rail trips as a result of the proposed project would result in a cumulatively significant contribution to the diesel emissions in the region.

However, it is important to note that diesel emissions identified in this EIR substantially overstate future particulate emissions from diesel engines as cleaner engines required by law in the near future will be substantially cleaner than those existing in current fleets. Considering the 70-year time period over which cancer risk exposure is estimated, applying the average heavy-duty diesel truck diesel particulate matter emissions fleet emission rate over a 70-year period using data available from the three emission control programs identified above is estimated to reduce cancer risk by 50 percent or more. As previously discussed, impacts to the sensitive receptors located near the Phase 2 site have been analyzed based on a 70-year exposure and it was determined that, with mitigation, the project would not create a significant impact on human health based on the cancer exposure risks to adjacent sensitive receptors.

4.3.7.5 Global Climate Change

There currently are no identified thresholds for greenhouse gas emissions.[1] This section provides an analysis of greenhouse gas (GHG) emissions associated with the proposed project. This analysis examines the short-term construction and long-term operational impacts of the proposed project as it relates to greenhouse gases and evaluates the effectiveness of measures incorporated as part of the project design to reduce the effects on global climate change.

The following analysis represents an estimate of the project's GHG emissions at build out in 2013 primarily through the quantification of carbon dioxide emissions (CO_2). Carbon dioxide emissions account for approximately 84 percent of the State's total GHG emissions in 2004. Methane and nitrous oxide accounted for 5.7 and 6.8 percent, respectively. Therefore, the estimation of CO_2, and CH_4, and N_2O from the most important construction and operation-related sources is illustrative of much of the project's contribution to GHG emissions. The following project activities were analyzed for their contribution to global CO_2 emissions.

Calculation of Energy Consumption. This section calculates the project's use of energy to determine its emission of greenhouse gases. This discussion is also consistent with Appendix F of the *CEQA Guidelines*, which describes the energy conservation information and analyses that should be included in an EIR, including emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

[1] The methodology used in this EIR to analyze the project's potential effect on global warming includes a calculation of GHG emissions.

As identified in Table 4.3.W, the average rate of electricity consumption for commercial building uses (including warehouses) is 16,750 kilowatt-hours (kWh) per year per thousand square feet of floor space based on the CAPCOA's *CEQA and Climate Change* guidance document.

Table 4.3.W: Annual Energy Factor Rates

Source	Annual Factor Rate Used
Building (Electricity)[1]	16,750 kWh per 1,000 square foot per year × 7,399,291 square feet
Water Supply and Wastewater Treatment[3]	12,700 kWh per million gallons water × 132.85 million gallons water per year

1 *CEQA and Climate Change*, CAPCOA
2 *CEQA Air Quality Handbook,* SCAQMD, adopted October 1993.
3 *California's Water-Energy Relationship, Table 1-3*, CEC, November 2005.

Based on energy factor rates identified in Table 4.3.W and the calculations contained in Table 4.3.X, the proposed project would utilize approximately 344,179 kilowatt-hours of electricity per day or 125,625,319 kilowatt-hours of electricity per year.

Table 4.3.X: Electricity Usage

Source of Energy Use	Electricity Used	
	Kilowatt-hours Used/Day	Kilowatt-hours Used/Year
Building	339,557	123,938,124
Water Supply and Wastewater Treatment	4,622	1,687,195
Total	**344,179**	**125,625,319**

Source: LSA Associates, Inc. January 2009.

The supply of natural gas and electricity is demand responsive. The project proponent would be required to meet the service requirements of utility providers, which would ensure that a less than significant impact related to the provision of power would result from development of the proposed warehouse distribution uses. Additionally, the proposed project would be required to meet or exceed Title 24, Part 6, of the California Code of Regulations and the project will implement mitigation measures requiring that Title 24 requirements are exceeded by 30 percent. Title 24 identifies energy efficiency standards for residential and nonresidential buildings. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect October 1, 2005. The 2005 standards for residential and non-residential buildings are expected to reduce the growth in electricity use by 478 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 8.8 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 163.2 GWh/y of electricity savings and 0.5 million therms of gas savings.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. Compliance with such standards would be reviewed before the issuance of a building permit by the City. As set forth below, the implementation of both SB 1368 and increased Title 24 performance standards will have a major impact with respect to California achieving AB 32 goals.

Mitigation measures imposed upon the project will require that all three phases include energy efficiency features that increase energy efficiencies in the buildings 30 percent beyond the requirements of Title 24. Because the proposed project would be required to exceed the standards contained in Title 24 by 30 percent in addition to requirements set forth by the respective utility providers, and because the proposed project would result in the construction of a building with project

1 *Nonresidential Compliance Manual for California's 2005 Energy Efficiency Standards*, California Energy Commission, April 2005.

features identified in the LEED program, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy.

Calculation of Greenhouse Gas Emissions. The project's GHG emissions during construction and mobile sources during project operation were estimated by using the URBEMIS 2007 computer model (Version 9.4.2). However, URBEMIS does not estimate the project's emissions from electricity use. Therefore, the project's GHG emissions from electricity use were calculated using the methodology and assumptions contained in the CAPCOA Guidance document and CEC and CCAR emission factors for electricity generated for use in California. The project's GHG emissions from on-site equipment were estimated using the emission factors for off-road equipment found on the SCAQMD website.

The methodology used in this EIR to analyze the project's potential effect on global warming includes a calculation of GHG emissions. Greenhouse gas emissions associated with the proposed project were estimated separately for five categories or sources of emissions: (1) increase in emissions due to construction activities; (2) increases in emissions due to energy use at the facility; (3) water consumption emissions associated with the proposed project; (4) vehicle use due to development of the facility; and, (5) solid waste generation emissions associated with the proposed project. GHG emission calculations were conducted for CO_2, CH_4, and N_2O as these are the most prevalent of greenhouse gases.

- **Construction Activities.** GHG emissions would be released through the burning of fossil fuels in construction equipment. However, GHG emissions associated with this phase of the project would be temporary.

  Production and eventual disposal of materials used in the construction of the project causes emission of greenhouse gases. These emissions are generally referred to as "life-cycle" emissions. For example, manufacture of building materials, such as cement, produces large quantities of life-cycle GHG emissions. Also, the different appliances installed by the builder will require different levels of GHG emissions to manufacture and transport to the site. Finally, choice of wood species (oak, pine, tropical hardwood) for use within the project will have different impacts on deforestation related GHG emissions.

  While construction of the project will lead to life-cycle emissions, environmental impacts of the production and disposal of materials are not generally analyzed in other sections of the EIR in order to avoid speculation and to maintain a reasonable analytical approach towards assessing environmental impacts. For example, criteria pollutant emissions associated with off-site cement or drywall manufacture for a project are not considered; electricity demand associated with manufacture of appliances is not incorporated into the utilities section; and protected species impacts of timber harvesting of wood used to construct the project are not included in the biological resources discussion of an EIR. These impacts are not evaluated because to do so would require highly speculative forecasting, which lead agencies are poorly situated to conduct and are not required to conduct under CEQA (Cal. Pub. Res. Code §§ 15144, 15145).

  The recent CAPCOA White Paper on CEQA and Climate Change supports this conclusion by stating that, "The full life-cycle of GHG emissions from construction activities is not accounted for … and the information needed to characterize [life-cycle emissions] would be speculative at the CEQA analysis level." California Air Pollution Control Officers Association, CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, 65 (January 2008).

  Life-cycle GHG emissions caused by a project are extremely difficult to estimate before they occur because of large variations between suppliers in the carbon intensity of materials. In addition, developers very often do not have control over choice of supplier by builders on a project. While it is possible to quantify life-cycle emissions when all suppliers of production

materials are known, in the absence of such knowledge and/or control, indirect life-cycle GHG emissions are, although real, extremely uncertain. Thus, quantification of these emissions is not attempted because to do so would be too speculative (Cal. Pub. Res. Code §§ 15144, 15145).

- **Building Energy.** GHG emissions associated with energy use would result from the combustion of fossil fuels to provide energy for the proposed project's buildings and for the treatment, conveyance, and distribution of water. As identified in previously referenced Table 4.3.X, the proposed project would require 123,938,124 kWh of electricity per year.
- **Water Consumption.** Water use and energy use are often closely linked. As identified by the CEC, water-related energy use consumes approximately 19 percent of the State's electricity, 30 percent of its natural gas, and 88 billion gallons of diesel fuel every year.[1] As water demand grows, energy demand also grows since population growth drives demand for both resources. The provision of potable water to consumers requires large amounts of energy associated with five stages: (1) source and conveyance, (2) treatment, (3) distribution, (4) consumption, and (5) wastewater treatment. As indicated in previously referenced Table 4.3.W, the proposed project would require 132.85 million gallons of water per year resulting in an energy demand of 1,687,195 kWh per year (Table 4.3.W).
- **Vehicle Use.** Mobile source GHG emissions were estimated based on the 11,915 projected gross daily trips from the *Traffic Impact Analysis*[2] conducted for this project. Average trip lengths were estimated based on the URBEMIS 2007 model outputs. Emissions of CO_2 and CH_4 were obtained from the EMFAC2007 model. Emissions of N_2O and CH_4 were estimated based on EPA emission factors, assuming vehicles, on average, would meet Tier 0 emission standards.
- **Solid Waste.** GHG emissions associated with solid waste generation would result from the combustion of solid waste generated by the proposed project. Solid waste GHG emissions were estimated based on the projected solid waste generated by the proposed project. The solid waste emission rate obtained from the EPA's *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Exhibit 6-1* was used to calculate the CO_2 emissions.

Project Carbon Dioxide Emissions. The project will generate emissions of carbon dioxide primarily in the form of vehicle exhaust and in the consumption of electricity for lighting and for transporting and treating water as well as natural gas for heating. Carbon dioxide emissions from vehicles were calculated using URBEMIS 2007 assumptions and EMFAC2007 emission factors that are used in URBEMIS 2007. Carbon dioxide emissions from natural gas combustion were generated using an EPA AP-42 emission factor.[3] Carbon dioxide emissions from electricity consumption were generated using an emissions generation rate of 878.71 pounds of CO_2 per MWh. Emission factors for solid waste were obtained from the EPA's *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Exhibit 6-1*.

Project Methane Emissions. The project will generate emissions of methane primarily in the form of vehicle exhaust. Methane emissions from natural gas combustion were generated using an EPA AP-42 emission factor.[4] Methane emissions from vehicles were estimated using EPA emission factors for on-highway vehicles[5] and the same assumptions used to estimate criteria pollutants in URBEMIS

1 *California's Water Energy Relationship*, California Energy Commission, http://www.energy.ca.gov/2005publications/CEC-700-2005-011/CEC-700-2005-011-SF.PDF, November 2005, site accessed January 21, 2008.
2 *Traffic Impact Analysis, South Perris Industrial Distribution Center, City of Perris, Riverside County, California,* Urban Crossroads, Inc., April 19, (revised).
3 AP-42 Emission Factor, Natural Gas Combustion, U.S. Environmental Protection Agency, July 1998. www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf.
4 AP-42 Emission Factor, Natural Gas Combustion, U.S. Environmental Protection Agency, July 1998. www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf.
5 *EPA420-P-04-016: Update of Methane and Nitrous Oxide Emission Factors for On-Highway Vehicles*. U.S. Environmental Protection Agency, prepared by ICF Consulting. November 2004. http://www.epa.gov/otaq/models/ngm/420p04016.pdf.

2007. Methane emissions generated during construction activities were not included because the emissions associated with construction are temporary and do not emit methane emissions that occur over the long-term.

Nitrous Oxide. The project would generate small amounts of nitrous oxide from vehicle emissions. Emissions from natural gas combustion were generated using an EPA AP-42 emission factor.[1] Nitrous oxide from vehicles was estimated using EPA emission factors for on-highway vehicles[2] and the same assumptions that were used to estimate criteria pollutants. Nitrous oxide emissions generated during construction activities were not included because the emissions associated with construction are temporary and do not emit nitrous oxide emissions that occur over the long-term.

Other Greenhouse Gas Emissions. As indicated in Table 4.3.Y, estimations for other GHG emissions were not calculated as these gases would not be generated or would not be affected by the proposed project.

Table 4.3.Y: Greenhouse Gas Applicability to Project

Greenhouse Gas	Applicability to Project
Water Vapor	The project does not contribute to this greenhouse gas because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks and not emissions from industrial and commercial activities.
Ozone	Ozone is a greenhouse gas; however, unlike the other greenhouse gases, ozone in the troposphere is relatively short-lived and therefore is not global in nature. According to the CARB, it is difficult to make an accurate determination of the contribution of ozone precursors (NO_X and VOCs) to global warming. Therefore, project emissions of ozone precursors would not significantly contribute to global climate change.
Chlorofluorocarbons	There is a ban for chlorofluorocarbons; therefore, the project would not generate emissions of these greenhouse gases and is not considered any further in this analysis.
Hydrofluorocarbons	The project may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment.[1] It is customary to exclude chlorofluorocarbons and hydrofluorocarbons from GHG inventories because they are regulated and are being phased out by the Clean Air Act and also because their global warming potentials are complicated by the fact that they deplete stratospheric ozone, which is also a greenhouse gas.
Perfluorocarbons and Sulfur Hexafluoride	Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications including aluminum smelting, semiconductor manufacturing, electric power transmissions and distribution, and magnesium casting. The proposed project would not include any of these industrial applications. Additionally, there is no aluminum or magnesium production in California; therefore, these sources of greenhouse gases are excluded.[2]

1 *EPA430-K-03-004, Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment.* U.S. Environmental Protection Agency, Climate Leaders, October 2004, http://www.epa.gov/climateleaders/documents/resources/refrige_acequipuseguidance.pdf.

2 *Hydrofluorocarbon, Perfluorocarbon, and Sulfur Hexafluoride Emissions,* California Climate Change Policy and Program, California Climate Change Portal, http://www.climatechange.ca.gov/policies/1990s_in_depth/page11.html, website accessed January 21, 2008.

Source: LSA Associates Inc., January 2009

GHG emissions associated with the proposed project were divided into the construction phase and the operational phase of the proposed project. GHG emissions would be associated with the

1 AP-42 Emission Factor, Natural Gas Combustion, U.S. Environmental Protection Agency, July 1998. www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf.

2 *EPA420-P-04-016: Update of Methane and Nitrous Oxide Emission Factors for On-Highway Vehicles*. U.S. Environmental Protection Agency, prepared by ICF Consulting. November 2004. http://www.epa.gov/otaq/models/ngm/420p04016.pdf.

construction phase of the project through the use of heavy equipment and vehicle trips. However, as previously identified, GHG emissions associated with this phase of the project would be temporary and are not included in the calculations. The operational phase GHG emissions were estimated separately for three categories or sources of emissions: (1) increases in emissions due to energy use at the facility, which include electricity production, treatment of potable water, and treatment of wastewater generated; (2) emissions associated with use of natural gas; and (3) emissions associated with vehicle and rail use due to development of the facility.

Table 4.3Z identifies the project's direct GHG emissions (i.e., emissions from vehicle trips generated by the project and areas source emissions from natural gas usage.) based on the URBEMIS 2007 computer model.

Table 4.3.Z: Direct Area Source and Mobile Source Emissions (URBEMIS)

Summer	**CO_2e**
URBEMIS	597,560.17
On-Site Equipment	279,147.69
Total	**876,707.86**
Winter	**CO_2e**
URBEMIS	565,462.33
On-Site Equipment	279,147.69
Total	**844,610.02**
Daily Average	860,658.94
Annual Total (lbs CO_2e)	**314,140,513.10**
Annual Total (MT CO_2e)	**142,491.00**

CO_2e = CO_2 equivalent: a measure for comparing carbon dioxide with other GHG's, which generally have a higher Global Warming Potential (GWP) based on the amount of those other gases multiplied by the appropriate GWP factor, commonly expressed as metric tons of carbon dioxide equivalents ($MTCO_2e$).
The total direct emissions were calculated by adding up the area source and mobile source emissions for winter and summer together and dividing by two to get the average daily emissions, which were then multiplied by 365 days to get the annual emissions.

Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Appendix A,* URS Corporation, May 19, 2009.

The proposed project's indirect emissions (i.e., emissions from the use of electricity and water, and solid waste generation) were also considered. Greenhouse gas emissions resulting from the proposed project's energy use are calculated based on the average rate of electrical consumption for commercial uses (including warehouse uses) published in the CAPCOA's *CEQA and Climate Change* guidance document and are identified in Table 4.3.AA.

Table 4.3.AA: Indirect Emissions from Electricity Usage

	CO_2	**CH_4**	**N_20**
Electricity Emission Rate (lbs/MWh)[A]	878.71	0.0067	0.0037
Global Warming Potential[B]	1	21	310
Annual Electricity Usage (kWh)[C]	123,938,124	123,938,124	123,938,124
Annual Electricity Usage MWh)	123,938	123,938	123,938
Annual Emissions (lbs)	108,905,669.16	830.39	458.57
Annual Total (lbs CO_2e)	**108,905,669.16**	**17,438.09**	**142,157.03**
Annual Total (lbs CO_2e)	**109,065,264.28**		

Table 4.3.AA: Indirect Emissions from Electricity Usage

	CO_2	CH_4	N_20
Annual Total (MT CO_2e)	**49,398.52**	**7.91**	**64.48**
Annual Total (MT CO_2e)	**49,470.91**		

Notes:
[A] = Electricity emissions factors were obtained from the CCAR's *General Reporting Protocol Table C-2.*
[B] = Global Warming Potential (GWP) factors were obtained from the CCAR's *General Reporting Protocol Appendix A.*
[C] = According to the CAPCOA *CEQA and Climate Change* guidance document, the average rate of electrical consumption for commercial uses (including warehouses) is 16,750 kilowatt hours (kWh) per year per thousand square feet of floor space.
Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Appendix A,* URS Corporation, May 19, 2009.

Greenhouse gas emissions resulting from the proposed project's energy use associated with water/wastewater are calculated based on the average rate of electrical consumption for a typical urban water system in southern California identified in the CEC's *California's Water-Energy Relationship, Table 1-3* and are identified in Table 4.3.BB.

Table 4.3.BB: Indirect Emissions from Electricity Usage Associated with Water/Wastewater

	CO_2	CH_4	N_20
Electricity Emission Rate (lbs/MWh)[A]	878.71	0.0067	0.0037
Global Warming Potential[B]	1	21	310
Annual Electricity Usage (kWh)	1,687,195	1,687,195	1,687,195
Annual Electricity Usage MWh)	1,687	1,687	1,687
Annual Emissions (lbs)	1,482,503.78	11.30	6.24
Annual Total (lbs CO_2e)	**1,482,503.78**	**237.38**	**1,935.15**
Annual Total (lbs CO_2e)	**1,484,676.31**		
Annual Total (MT CO_2e)	**672.45**	**0.11**	**0.88**
Annual Total (MT CO_2e)	**673.43**		

Notes:
[A] = Electricity emissions factors were obtained from the CEC's *California's Water-Energy Relationship Table 1-3*
[B] = Global Warming Potential (GWP) factors were obtained from the CCAR's *General Reporting Protocol Appendix A.*
Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Appendix A,* URS Corporation, May 19, 2009.

Greenhouse gas emissions resulting from the proposed project's energy use associated with solid waste generation are calculated based on the projected solid waste generated by the proposed project. The solid waste emission rate obtained from the EPA's *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Exhibit 6-1* was used to calculate the CO_2e emissions and are identified in Table 4.3.CC.

Table 4.3.CC: Indirect Emissions from Mixed Solid Waste

	CO_2e
Mixed Solid Waste Emission Rate (MT CO_2 e/ton)[A]	0.12
Annual Mixed Solid Waste Generation (metric tons)	18.55
Annual Total (lbs CO_2e)	**40,895.96**
Annual Total (MT CO_2e)	**2.23**

Notes:
[A] = The gross emissions of GHGs from municipal solid waste combustion is 0.12 MT CO_2e/ton based on the EPA's *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, Exhibit 6-1.*
Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Appendix A,* URS Corporation, May 19, 2009.

As indicated in Table 4.13.DD, electricity usage associated with the proposed project would generate an annual emission of 45,504.8 metric tons of CO_2, 0.36 metric ton of CH_4, and 0.20 metric ton of N_2O.

Table 4.3.DD: Estimated Project Greenhouse Gas Emissions

GHG Emission Source	CO_2	CH_4	N_2O	CO_2e
Direct – URBEMIS – Summer (lbs/year)	597,560.17			597,560.17
Direct – On-Site Equipment – Summer (lbs/year)	279,147.69			279,147.69
Direct – URBEMIS – Winter (lbs/year)	565,462.33			565,462.33
Direct – On-Site Equipment – Winter (lbs/year)	279,147.69			279,147.69
Total Direct GHG Emissions (lbs/year)				314,140,513.10
Indirect – Electricity Usage (lbs/year)	108,905,669.16	830.39	458.57	109,065,264.28
Indirect – Electricity Usage from Water/Wastewater (lbs/year)	1,482,503.78	11.30	6.24	1,484,676.31
Indirect – Mixed Solid Waste (lbs/year)				40,895.96
Indirect Subtotal (MT)[A]	50,071	0.38	0.21	
Total Indirect GHG Emissions (lbs/year)				110,590,836.55
Total Direct + Indirect GHG Emissions (lbs/year)				424,731,349.65
Total Direct + Indirect GHG Emissions (MT/year)				**192,637.57**

Notes: A One pound is equal to 0.00045359237 metric ton (MT)
Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Appendix A,* URS Corporation, May 19, 2009.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPS are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO_2 equivalents (CO_2e). As indicated in Table 4.13.DD, the primary greenhouse gas generated by the project would be carbon dioxide. As identified in Table 4.13.DD, the proposed project's total unmitigated carbon dioxide equivalents[1] for carbon dioxide, methane, and nitrous oxide would be 192,637.94 CO_2e, or 0.193 Teragrams (Tg)[2] CO_2 Eq per year.

The carbon dioxide, methane, and nitrous oxide emissions that would be associated with the proposed project is approximately 0.04 percent of California's 2004 total emissions for carbon dioxide, methane, and nitrous oxide (492 Tg CO_2 Eq).

The California Environmental Protection Agency Climate Action Team has developed a report[3] that "proposes a path to achieve the Governor's targets that will build on voluntary actions of California businesses, local government and community actions, and State incentive and regulatory programs." The report indicates that the strategies will reduce California's emissions to the levels proposed in Executive Order S-3-05. The strategies that apply to the project are contained in Table 4.13.EE along with an evaluation of the project's consistency with these strategies. As identified, the proposed project would be consistent with all feasible and applicable strategies to reduce greenhouse gas emissions in California. Therefore, the impact of the proposed project, based on these specifications, would be reduced in comparison to project's that are not consistent.

[1] All greenhouse gases are presented in units of teragrams of carbon dioxide equivalents (Tg CO2 Eq.).

[3] *Climate Action Team Proposed Early Actions to Mitigate Climate Change in California (Draft)*, California Environmental Protection Agency Climate Action Team, April 20, 2007.

Table 4.3.EE: Project Consistency with Climate Action Team Strategy

2006 Climate Action Team Strategy	Project Design/Mitigation to Implement Strategy
Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	The project includes the following mitigation measure: **4.3.6.4A**: In order to reduce the project's operational DPM emissions, signs shall be posted on the site in loading bay areas informing truck drivers of the California Air Resources Board regulations that limit truck idling to no more than 5 minutes.
Hydroflourocarbon Reduction: 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leaktightness to pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce Federal ban on releasing HFCs.	Not applicable.
Transportation Refrigeration Units (TRU), Off-Road Electrification, Port Electrification: Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	The project includes the following mitigation measures: **4.3.6.4B**: In order to reduce the project's operational DPM emissions, electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary idling of main and auxiliary truck engines. **4.3.6.4C**: In order to reduce the project's operational DPM emissions, all on-site forklifts will not be diesel powered.
Achieve 50 percent Statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	The project includes the following design features: • Recycling and/or salvaging 75% of nonhazardous construction and demolition waste, and developing and implementing a construction waste management plan; • Providing an easily accessible area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling.
Zero Waste – High Recycling: Additional recycling beyond the State's 50 percent recycling goal.	See above.
Urban Forestry: A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Not applicable.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are	The project includes the following design

Table 4.3.EE: Project Consistency with Climate Action Team Strategy

2006 Climate Action Team Strategy	Project Design/Mitigation to Implement Strategy
used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	features: • Reducing the potable water consumption for irrigation by 50%; • Maximizing water efficiency within the project resulting in a 30% reduction of water use, excluding irrigation, than the baseline after meeting Energy Policy Act of 1992 guidelines for fixture performance.
Building Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	The project includes the following design features: • Optimizing energy performance and achieving a 30% reduction in energy use.
Appliance Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	The project includes the following design features: • Optimizing energy performance and achieving a 30% reduction in energy use.
Smart Land Use and Intelligent Transportation Systems (ITS): Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods, and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through State investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	Although the project is not located along a transit corridor, the jobs created by the project are anticipated to be filled by the residents in the city of Perris and the surrounding community.
Green Buildings Initiative: Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	The project includes design features which are consistent with the LEED Green Building System and will increase the project's efficiency.
California Solar Initiative: Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing	The project is structurally designed to be ready to accept the installation of solar power systems, subject to Southern

Table 4.3.EE: Project Consistency with Climate Action Team Strategy

2006 Climate Action Team Strategy	Project Design/Mitigation to Implement Strategy
demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	California Edison's program.

Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Table 2,* URS Corporation, May 19, 2009.

CARB Early Action Measures.[1] The measures identified in the *Proposed Early Actions to Mitigate Climate Change in California* document will become part of the State's comprehensive strategy for achieving GHG reductions under Assembly Bill 32, the California Global Warming Solutions Act of 2006 (AB 32).

By January 1, 2009, the CARB must design and adopt an overall plan to reduce GHG emissions to 1990 levels. By January 1, 2011, the CARB must adopt the necessary regulations to implement that plan. Implementation begins no later than January 1, 2012, and the emissions reduction target must be fully achieved by January 1, 2020. As part of this comprehensive effort, the CARB is empowered to use traditional command and control methods and to adopt and implement market-based compliance mechanisms provided certain criteria are met.

CARB staff is proposing that they actively pursue 36 separate measures during calendar years 2007, 2008 and 2009. Three new GHG-only regulations (Group 1) are proposed to meet the narrow legal definition of "discrete early action greenhouse gas reduction measures" in Section 38560.5 of the Health and Safety Code. These include the Governor's Low Carbon Fuel Standard, reduction of refrigerant losses from motor vehicle air conditioning maintenance, and increased methane capture from landfills. These actions are estimated to reduce GHG emissions between 13 and 26 million metric tons of CO_2 equivalent ($MMTCO_2e$) annually by 2020 relative to projected levels. If approved for listing by the Governing Board, these measures will be brought to hearing in the next 12 to 18 months and take legal effect by January 1, 2010.

CARB is initiating work on another 23 GHG emission reduction measures in the 2007-2009 time period, with rulemaking to occur as soon as possible where applicable (Group 2). These GHG measures were drawn from three separate sources. Some were identified in the March 2006 Climate Action Team Report and are already underway. This group also includes strategies CARB staff has identified since March 2006 – such as cooler automobile paints and tire inflation requirements – that could be developed relatively quickly and produce significant GHG reductions. The Group 2 measures also reflect stakeholder input. Group 2 measures are expected to yield at least 20 $MMTCO_2e$ of reductions by 2020, with reductions for several measures still to be quantified.

Finally, CARB staff has identified 10 conventional air pollution control measures that are scheduled for rulemaking in the 2007–2009 period (Group 3). These control measures are aimed at criteria and toxic air pollutants, but will have concurrent climate co-benefits through reductions in CO_2 or non-Kyoto pollutants (i.e., diesel particulate matter, other light-absorbing compounds and/or ozone precursors) that contribute to global warming. These measures were drawn from CARB's annual rulemaking calendar, CARB's Diesel Risk Reduction Plan, the Goods Movement Emissions Reduction Plan, and the State Implementation Plan. Group 3 reductions in terms of $MMTCO_2e$ are still being quantified.

The Group 1, 2 and 3 measures will reduce GHG emissions between 33-46 $MMTCO_2e$ by 2020 relative to projected levels. Existing CARB regulations will contribute an additional 30 $MMTCO_2e$ (e.g., AB 1493). These estimates exclude the benefits from reducing diesel particulate matter, ozone

[1] *Proposed Early Actions to Mitigate Climate Change in California,* California Air Resources Board, April 20, 2007.

precursors and other pollutants since the CO_2 equivalent effects are yet to be determined. Together, these measures will make a substantial contribution to the overall 2020 statewide emission reduction goal of approximately 174 $MMTCO_2e$.

AB 32 requires that all GHG reduction measures adopted and implemented by the CARB be technologically feasible and cost-effective. The law also requires that GHG measures have neither negative impacts on conventional pollutant controls nor any disproportionate socio-economic effects (among other criteria). CARB staff is making a presumption, based on currently best available information, that all of the measures it is proposing to pursue will meet all of the legal requirements of AB 32. If additional information or analysis reveals that a particular measure cannot meet one or more of these requirements, it will not be put into effect. The actual design or features of each measure may also change based on public comments and/or what is learned during the regulatory development process.

Table 4.3.FF summarizes the 2007 CARB Early Action Measures and the proposed project's applicability.

Table 4.3.FF: Project Consistency with CARB Early Action Measures Strategy

2007 CARB Early Action Measures	Project Design/Mitigation to Implement Strategy
Aboveground storage tanks.	Not applicable
Diesel: Off-road equipment (non-agricultural): regulation to reduce emissions from existing off-road diesel vehicles used in construction, mining, and other industries; will require fleets to modernize and add retrofits to meet reduction requirements.	The project includes the following mitigation measure: **4.3.6.4C**: In order to reduce the project's operational DPM emissions, all on-site forklifts will not be diesel-powered.
Forestry protocol adoption.	Not applicable
Diesel: Port trucks.	Not applicable
Diesel: Vessel main engine fuel specifications.	Not applicable
Diesel: Commercial harbor craft.	Not applicable
Green ports.*	Not applicable
Manure digester protocol for calculating GHG mitigation.	Not applicable
Guidance and protocols for local governments to facilitate GHG emission reductions: will address 1) best practices for local governments to reduce GHG emissions; 2) categorization and prioritization of strategies by applicability to community types, cost-effectiveness, time needed to achieve reductions, etc.; 3) local government protocols for emission reduction accounting; and 4) appropriate modeling tools to support emission quantification at the local level.	The project includes the following design feature: • Optimizing energy performance and achieving a 30% reduction in energy use.
Guidance/protocols for businesses to facilitate GHG emission reductions: will provide guidance and informational resources to local businesses on best practices, emission calculation and verification methods, case studies, cost-effectiveness information, and other tools to assist in reducing GHG emissions.	The project includes the following design features: • Providing preferred parking for low-emitting and fuel efficient vehicles for 5% of total vehicle parking • Providing secure bike racks or storage for 3% or more of all building users
Cool communities program: non-regulatory voluntary program with a set of guidelines to be adopted to foster the establishment or transition to cool communities in California; includes cool roofs, cool pavements, and shade trees/urban forest.	The project involves the use of a light colored coating for the building rooftop.

Table 4.3.FF: Project Consistency with CARB Early Action Measures Strategy

2007 CARB Early Action Measures	Project Design/Mitigation to Implement Strategy
Reduction of high GWP GHGs used in consumer products.*	Not applicable
Reduction of PFCs from semiconductor industry.*	Not applicable
SmartWay truck efficiency*: requires existing trucks/trailers to be retrofitted with the best available fuel-efficiency "SmartWay Transport" and/or ARB approved technology.	Not applicable
Low Carbon Fuel Standard.*	Not applicable
Reduction of HFC-134a from nonprofessional servicing of MVACs.*	Not applicable
Increased methane capture from landfills.	Not applicable
Gasoline dispenser hose replacement.	Not applicable
Portable outboard marine tanks.	Not applicable
Standards for off-cycle driving conditions.	Not applicable
Diesel: Privately owned on-road trucks.	Not applicable
Anti-idling enforcement: per Title 13 of the California Code of Regulations, Section 2485, idling of diesel-fueled commercial motor vehicles (greater than 10,000 lbs) for more than five minutes is prohibited; to be enhanced by stricter field enforcement, increased penalties, and restriction of violators' registrations.	The project includes the following mitigation measure: **4.3.6.4A**: In order to reduce the project's operational DPM emissions, signs shall be posted on the site in loading bay areas informing truck drivers of the CARB regulations that limit truck idling to no more than 5 minutes.
SF6 reductions from the non-electric sector.*	Not applicable
Tire pressure program*: Program to monitor and correct vehicle tire pressure.	Not applicable
Cool paints for automobiles.	Not applicable
Cement (A): Blended cements.	Not applicable
Cement (B): Energy efficiency of California cement facilities.	Not applicable
Ban of HFC release from MVAC service/dismantling.	Not applicable
Diesel: Off-road equipment (agricultural).	Not applicable
Addition of AC leak test and repair requirements to Smog Check.	Not applicable
Collaborative research to understand how to reduce GHG emissions from nitrogen land application.	Not applicable
Specifications for commercial refrigeration.	Not applicable
Reduce methane venting/leaks from oil and gas systems.	Not applicable
Require low GWP refrigerants for new MACS.	Not applicable
Hybridization of medium and heavy-duty diesel vehicles: CARB to adopt regulation and/or incentive program to take advantage of emerging hybrid electric technology for heavy-duty trucks.	Not applicable
Reduce SF6 from electricity generation.	Not applicable
Refrigerant tracking, reporting and recovery program.	Not applicable

Table 4.3.FF: Project Consistency with CARB Early Action Measures Strategy

2007 CARB Early Action Measures	Project Design/Mitigation to Implement Strategy
Foam recovery/destruction program: regulatory measure(s) to implement a program to recover and destroy high-GWP insulating foams from buildings, other construction/demolition (C/D) waste, and appliances at end-of-life (EOL).	The project includes the following design feature: • Recycling and/or salvaging 75% of nonhazardous construction and demolition waste, and developing and implementing a construction waste management plan.
Alternative suppressants in fire protection systems.	Not applicable
Strengthen light-duty vehicle standards.	Not applicable
Truck stop electrification with incentives for truckers: require truck stops to install electrical power infrastructure (i.e., on-shore electrical power) to reduce heavy-duty trucks idling and diesel auxiliary power unit emissions, perhaps through the use of financial incentives. Affected entities include owners and/or operators of heavy-duty trucks, truck stops owners and technology vendors.	The project includes the following mitigation measure: **4.3.6.4B**: In order to reduce the project's operational DPM emissions, electrical hook-ups shall be installed in loading bay areas to eliminate unnecessary
Diesel: Vessel speed reductions: under the Diesel Risk Reduction Plan, Goods Movement Emissions Reduction Plan, and AB 32, CARB staff is evaluating the need to develop and ocean-going VSR program.	Not applicable
Transportation refrigeration: electric standby.	Not applicable
Stationary agricultural engine electrification.	Not applicable
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	The project includes the following design features: • Reducing the potable water consumption for irrigation by 50%; • Maximizing water efficiency within the project resulting in a 30% reduction of water use, excluding irrigation, than the baseline after meeting Energy Policy Act of 1992 guidelines for fixture performance.

Notes: * These items are expected to meet the AB32 definition of discrete early actions in that they directly address GHG emission, are regulatory, and are enforceable by January 1, 2010.
Source: *Greenhouse Gas Analysis Proposed South Perris Industrial City of Perris, Table 3,* URS Corporation, May 19, 2009.

The proposed project is in compliance with all the applicable CARB Early Action Strategies.

The SCAQMD currently recommends that potential GHG emissions be addressed through energy efficiency. Therefore, the following measures, in accordance with the California Attorney General's proposed mitigation measures, shall be implemented as part of project conditions of approval as to further reduce the potential emissions associated with operational activities.

Despite the project's compliance with all applicable early action strategies, the project contribution to Statewide greenhouse gas impacts is significant on a cumulative basis and mitigation is required.

Mitigation Measures. Previously referenced **Mitigation Measures 4.3.6.3D** through **4.3.6.3F** require that the project install energy efficient measures that exceed California Title 24 standards by 30 percent for all buildings, accommodate renewable energy facilities, and include transportation and motor vehicle reduction measures. These mitigation measures will reduce the potential GHG emissions resulting from implementation of the proposed project.

The following mitigation measures have been identified to reduce the potential GHG emissions resulting from implementation of the proposed project:

4.3.7.5A As part of building plan approval, the project proponent shall include water conservation and efficiency measures. Water conservation and efficiency measures may include (but are not limited to):

- Creation of water-efficient landscapes;
- Installation of water-efficient irrigation systems and devices such as soil moisture-based irrigation controls;
- Use of reclaimed water for landscape irrigation in new developments and on public property including the installation of infrastructure to deliver and use reclaimed water;
- Design buildings to be water-efficient including the installation of water-efficient fixtures and appliances;
- Restricting water methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff;
- Implementing low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment; and
- Devising a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.

4.3.7.5B As part of building plan approval, the project proponent shall include solid waste reduction measures. Solid waste reduction measures may include (but are not limited to):

- Reuse and recycle of construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard); and
- Provision of interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

4.3.7.5C As part of building plan approval, the project proponent shall implement all applicable design features identified in Table 4.3.EE and 4.3.HH which include:

- Recycling and/or salvaging 75 percent of nonhazardous construction and demolition waste, and developing and implementing a construction waste management plan;
- Providing an easily accessible area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling;
- Reducing the potable water consumption for irrigation by 50 percent;
- Maximizing water efficiency within the project resulting in a 30 percent reduction of water use, excluding irrigation, than the baseline after meeting Energy Policy Act of 1992 guidelines for fixture performance;
- Optimizing energy performance and achieving a 30 percent reduction in energy use.
- Providing preferred parking for low-emitting and fuel efficient vehicles for 5 percent of total vehicle parking;

- Providing secure bike racks or storage for 3 percent or more of all building users; and
- The project involves the use of a light colored coating for the building roof top.

Level of Significance After Mitigation. The discussion identifies and qualitatively analyzes various reduction measures and programs designed to reduce greenhouse gases to the extent possible. Although implementation of the above-detailed measures in addition to the previously stated mitigation measures may reduce the emission of greenhouse gases attributable to the project through vehicle emission reductions, vehicular trip reductions, HFC emission reductions, recycling programs, increases in building and appliance energy efficiencies, and decreased water use, it is not possible to specifically quantify the reduction in greenhouse gases that will result from implementation of the strategies and programs described above. The project is consistent with the strategies to reduce California's emissions to the levels proposed by Executive Order S-3-05. In addition, the impacts on climate change of a project of this size, considered in isolation, would be analytically indistinguishable from the background. For these reasons, the project specific incremental contribution to climate change at the project level is less than significant with implementation of all the mitigation measures specified for air quality and global climate change impacts, adherence to the design features cited above, and incorporation of LEED principles and design measures discussed previously. Although the project will exceed Title 24 requirements by 30 percent (see Mitigation Measure 4.3.6.3D) resulting in a corresponding 30 percent reduction in emissions from energy consumption, as well as incorporate all design features consistent with applicable Climate Action Team strategies and LEED principles and design measures, the operational emissions of VOC, NO_X, and CO would continue to exceed the daily regional thresholds of significance recommended by the SCAQMD. Therefore, the City concludes that the project contribution to Statewide greenhouse gas impacts are cumulatively considerable.

4.4 BIOLOGICAL RESOURCES

This section discusses the potential impacts of development of the proposed project on biological resources. Information to evaluate and analyze the proposed project's impacts to biological resources is derived from the following references and studies:

- *Focused Burrowing Owl Survey Report*, URS Corporation, June 17, 2009 (EIR Appendix D-1);
- Preliminary Jurisdictional Determination Report, South Perris Distribution Center Project, URS Corporation, June 17, 2009 (EIR Appendix D-2);
- *Special Status Plant Survey Report*, URS Corporation, June 17, 2009 (EIR Appendix D-3);
- *Vernal Pool and Fairy Shrimp Survey Results – South Perris Industrial Project, Riverside County, California*, URS Corporation, March 18, 2009 (EIR Appendix D-4); and
- *Western Riverside Multi-Species Habitat Conservation Plan Compliance Report*, URS Corporation, June 17, 2009 (EIR Appendix D-5).

In addition, the analysis contained in this section is based on the following reference documents:

- *Conservation Element*, City of Perris General Plan, adopted July 12, 2005.

For the purposes of this analysis, biological resources include the plants, wildlife, and habitat that occur, or have the potential to occur within the project's Biological Study Area (BSA). The BSA encompasses approximately 1,937 acres and includes the project's proposed approximately 455-acre physical ground footprint, in addition (to the maximum extent possible) a 500-foot buffer. The biological resource studies are based surveys on the BSA conducted in February and October, 2007; May, July, August, and December 2008; and January 2009.

4.4.1 Existing Setting

4.4.1.1 Topography and Soils

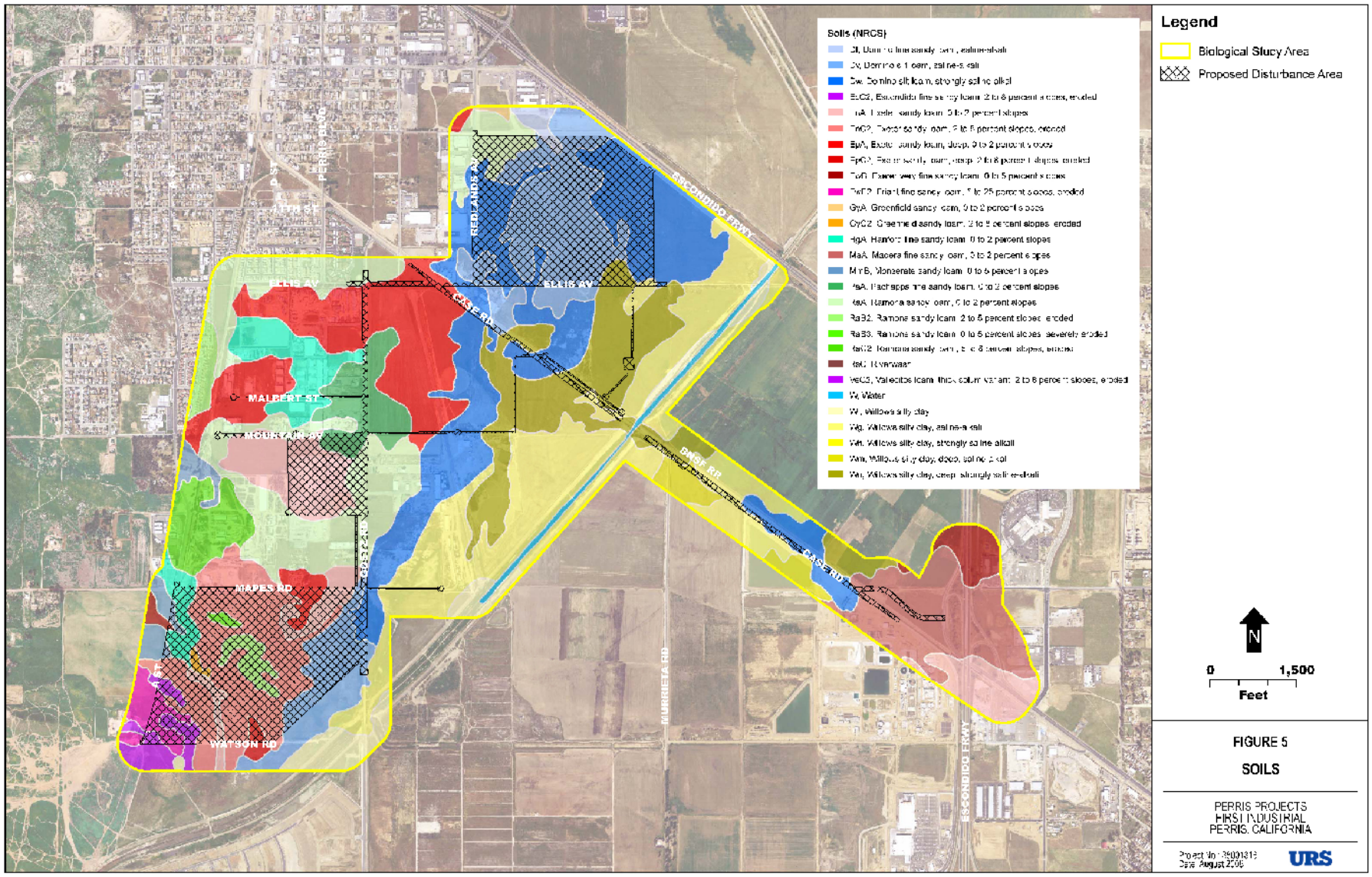
The BSA is located at an approximate elevation of 1,420 feet above mean sea level (amsl), in the south-central portion of the City of Perris. The majority of the land within the study area is currently undeveloped. Scattered residential, industrial and agricultural operations are the primary existing land uses in the Project's vicinity. Generally, the BSA is located southwest of Interstate 215 (I-215) and south of Fourth Street.

Review of the 2008 USDA Web Soil Survey indicates that the BSA encompasses many different soil Map Units. Soils present throughout the project area have been disturbed due to the past and current development and agricultural activities. Soils common within the BSA include soils from the Ramona, Hanford, and Greenfield series. In addition, the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) was consulted to identify the location of any sensitive soils in the BSA. Based on this review, it was determined that several sensitive soils (i.e., Domino and Willow) are located within the BSA. The location and distribution of soils within the BSA is detailed in Figure 4.4.1.

4.4.1.2 Vegetation Communities

The project areas are dominated by three vegetation communities consisting of field croplands, Residential/Urban/Exotic land, and non-native grassland. The vegetation communities observed within the BSA are described below and are illustrated in Figure 4.4.2.

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FIGURE 4.4.1

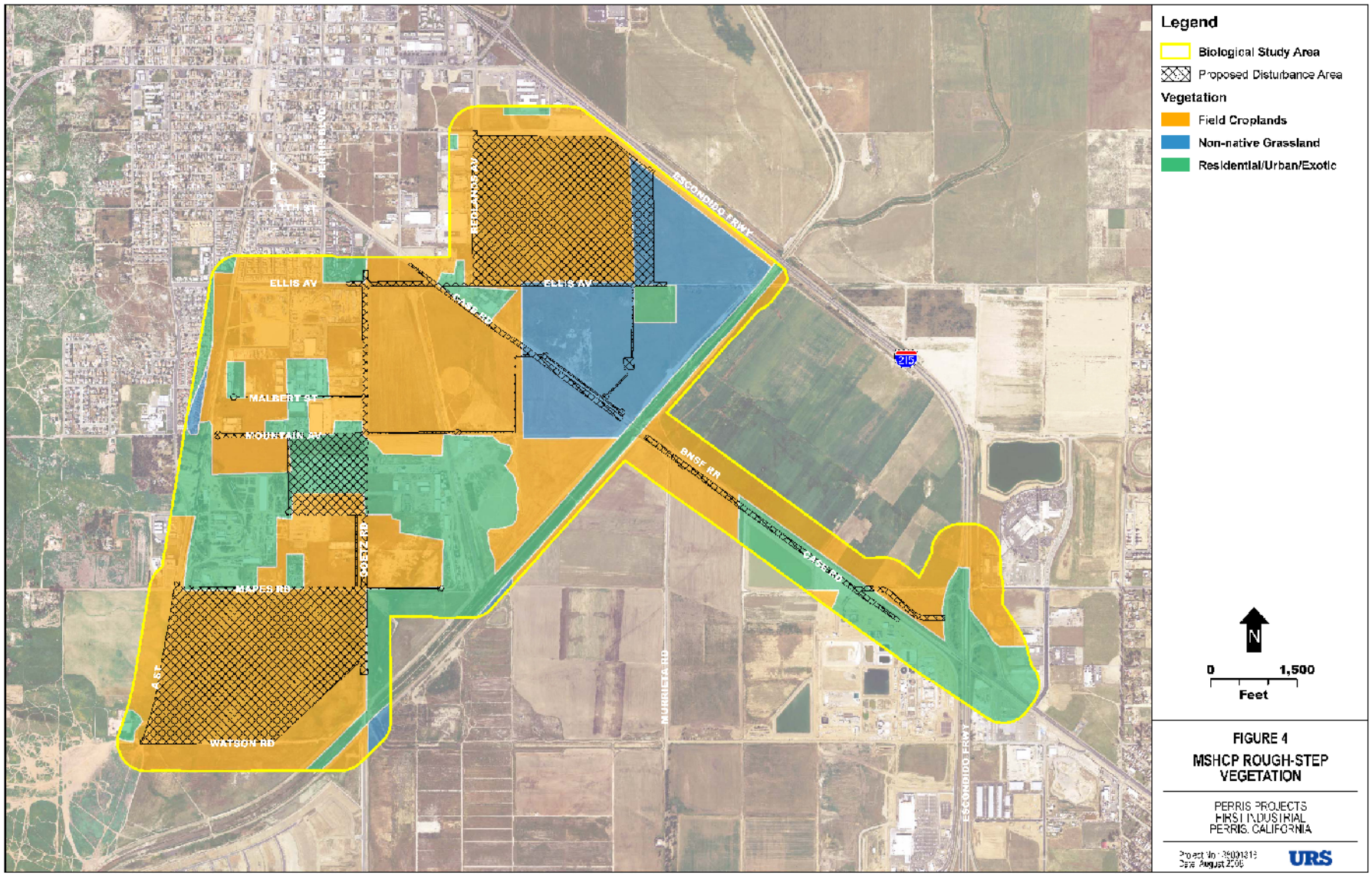
South Perris Industrial
Environmental Impact Report

Soils Within the Biological Study Area

SOURCE: URS (2008)

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FIGURE 4.4.2

South Perris Industrial
Environmental Impact Report

Vegetation Communities
Within the Biological Study Area

SOURCE: URS (2008)

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Agricultural Land (Field Croplands). This type of community includes vegetation found on agricultural lands that are subject to dry land (non-irrigated) farming of grain and seed crops, as well as seed producing grasses (e.g., primarily barley, cereal rye, oats, and wheat). A majority of the BSA encompasses this habitat type. The Phase 2 and Phase 3 sites have been leased in the past to grow alfalfa and graze sheep; however, the sites have not been actively planted or cultivated for at least three years. Approximately 1,185 acres within the BSA was identified as agricultural land.

Developed/Disturbed Land (Residential/Urban/Exotic). Developed areas within the BSA includes roads (i.e., paved and dirt), fencing, and remnant structures related to previous human related activities. Most of this vegetation/habitat type within the BSA was lacking vegetation of any kind, due to previous development, disking, weed abatement and/or illegal dumping. Disturbed habitat within the BSA varied from areas dominated by sparse non-native grasses and annual species in excess of two feet in height, to bare/grazed ground. Typical non-native plant species observed within this community included black mustard (*Brassica nigra*), Russian thistle (*Salsola tragus*), brome grasses (*Bromus* sp.), and eucalyptus (*Eucalyptus* sp.) Approximately 506 acres within the BSA was identified as developed/disturbed.

Non- Native Grasslands. Grasslands surveyed in the BSA ranged from scattered perennial bunch grasses (typically *Nassella pulchra*, or *N. lepida*) with high abundance of non-native grasses and forbs to area dominated by native perennial grasses and herbaceous annual species. Native herbaceous plants identified within the BSA's grasslands include yellow fiddleneck (*Amsinckia menziesii*), Calandrinia spp., common calyptridium (*Calyptridium monardum*), suncup (*Camissonia* spp.), owl's-clover (*Castilleja* spp.), Chinese houses *(Collinsia heterophylla*), California poppy (*Eschcholzia californica*), tarweed (*Hemizonia* spp.), coast goldfields (*Lasthenia californica*), common tidy-tips (*Layia platyglossa*), checker mallow (*Sidalcea malvaeflora*), and clover (*Trifolium* spp.). Approximately 246 acres within the BSA were identified as grassland.

4.4.1.3 Special Status Species

For the purposes of this analysis, "special-status species" include any species that has been afforded special recognition by federal, state, or local resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Game [CDFG]), etc.) and/or resource conservation organizations (e.g., MSHCP, California Native Plant Society [CNPS]). The term "special-status species" excludes those avian species solely identified under Section 10 of the Migratory Bird Treaty Act (MBTA) for federal protection. Nonetheless, MBTA Section 10 protected species are afforded avoidance and minimization measures per state and federal requirements.

Plants. Twenty-one (21) special-status plant species are reported to occur within the USGS *Perris* and *Romoland* quadrangles. Due to restrictive habitat requirements and conditions within the BSA, twenty (20) of these species were determined to be absent from the BSA.[1] No further survey or study is required to determine likely presence or absence of these species, or to assess project-related impacts.

One special status plant species, smooth tarplant (*Centromadia pungens ssp. laevis*) was identified in two locations within the BSA. While this species is not designed endangered or threatened by either state or federal authorities, it is designated as a MSHCP Criteria Area Species.[2] These two

[1] Consult Appendix C of Appendix D-5

[2] Additionally, the California Native Plant Society designates the smooth tarplant on List 1B.1, (plants rare and endangered in California and throughout their range (90% of occurrences threatened/high degree and immediacy of threat.)

populations were identified as small, geographically isolated, and outside of the intended disturbance area for the proposed development.

Wildlife. Common animals observed within the BSA and on adjacent lands included: western fence lizard (*Sceloporus occidentalis*), common raven (*Corvus corax*), and ground squirrel (*Spermophilus* sp.), among others.

Thirty-three (33) special-status wildlife species are reported to occur within the USGS *Perris* and *Romoland, California* quadrangles. Due to restrictive habitat requirements and conditions within the BSA, thirty (30) of these special-status wildlife species were determined to be absent from the BSA;[1] therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

Three of these special-status species were observed during the surveys. The three special status species observed include:

- Burrowing owl (*Athene cunicularia*);
- California horned lark (*Eremophila alpestris actia*); and
- Loggerhead shrike (*Lanius ludovicianus*).

Special-status species that do not receive Federal or State Endangered Species Act (ESA) protection (e.g., California horned lark and loggerhead shrike), but are covered under the take and incidental take provisions of the MSHCP, do not require further survey or study to determine likely presence, absence, or project-related effects. However, for those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. Further protective action for the burrowing owl includes either subsequent clearance surveys or the implementation of specific programs to avoid, minimize, and preclude the inadvertent take of birds during construction.

4.4.1.4 MSHCP Survey Areas

The project is located within the Mead Valley Area Plan of the MSHCP. The project does not include Public/Quasi-Public (PQP) lands nor is it within close proximity to any MSHCP Conserved Lands. The BSA is approximately 3.0 miles northeast of nearest defined PQP lands. Development carried out within the Mead Valley Area Plan, but outside of PQP Lands (e.g., the proposed project) is subject to compliance with MSHCP policies.

The BSA is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. All or portions of the BSA are located within areas requiring burrowing owl surveys or within the MSHCP's Criteria Area Plant Species Survey Area (CAPSSA) or Narrow Endemic Plant Species Survey Area (NEPSSA). Additionally, based on a review of the MSHCP and on-site soils and topography, areas within the BSA were suspected of being potential special aquatic resource areas (e.g., waters of the United States, wetlands) and/or riparian/riverine habitats.

4.4.1.5 On-site Drainage Features

The study area contains 13 drainage features. Features 1, 2, 3, 4, 5, 6, 8, 10, 11, and 12 are roadside ditches that drain relatively small, localized upland areas - primarily consisting of agricultural fields and surface water runoff from developed lands. These features are roadside ditches excavated

[1] Consult Appendix D of Appendix D-1.

wholly in, and draining only uplands that do not contain relatively permanent flows. The two remaining features (Features 7 and 9) are identified as blue line drainages on USGS topographic maps. Feature 7 (the San Jacinto River), drains the vast majority of the San Jacinto Valley Watershed to the east of the study area. Feature 9, an earthen artificial flood control feature constructed by the Flood Control District, includes the next largest upstream drainage area totaling approximately 463 acres; nonetheless, Interstate 215 effectively isolates this feature from the larger upstream watershed. Feature 9 drains developed residential and commercial lands located east of "A" Street/Santa Fe Railroad. The topography west of "A" Street (the western boundary of the study area) is such that most of the downstream flow is largely redirected away from the study area.

The locations of the drainage features located within the BSA are detailed in Figure 4.4.3.

4.4.2 Existing Policies and Regulations

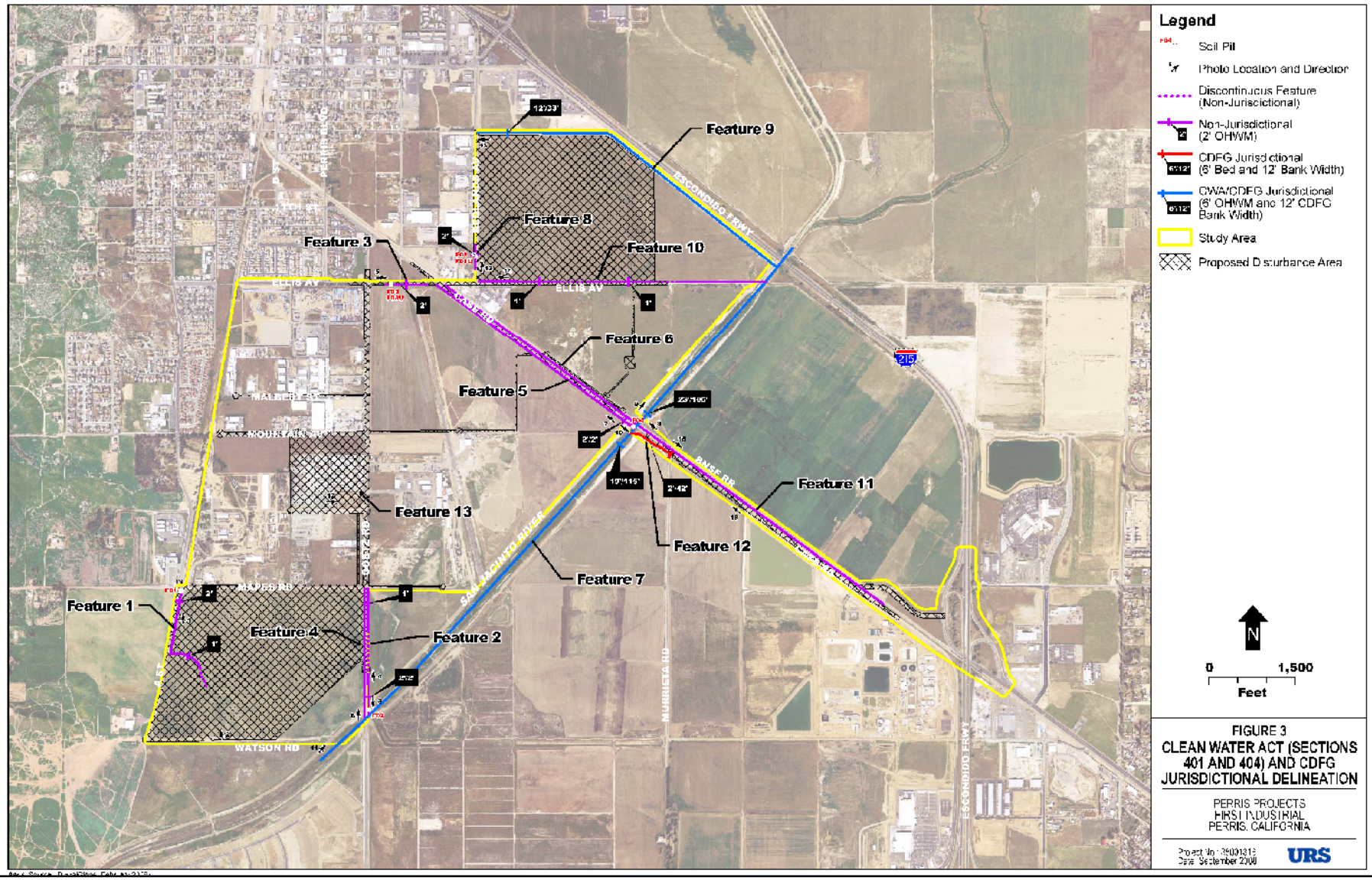
4.4.2.1 City of Perris General Plan Policies

The specific policies outlined in the City's General Plan Conservation Element related to biological resources include:

Conservation Element

Goal II	**Biological Resources.** Preservation of areas with significant biotic communities.
Policy II.A	Comply with state and federal regulations to ensure protection and preservation of significant biological resources.
Measure II.A.1	Maintain a database and resource identification map that identifies areas known, or with the potential to contain, sensitive plant and wildlife species.
Measure II.A.2	For public and private projects located in areas with potential for moderate or high plant and wildlife sensitivity, require biological surveys as part of the development review process.
Measure II.A.3	For those public and private projects that are also subject to federal or State approval with respect to impacts to waters of the U.S. and/or Streambeds, require evidence of completion of the applicable federal permit process prior to the issuance of a grading permit.
Goal III	**Biological Resources.** Implementation of the Multiple Species Habitat Conservation Plan (MSHCP).
Policy III.A	Review all public and private development and construction projects and any other land use plans or activities within the MSHCP area, in accordance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP.
Measure III.A.1	Maintain a current copy of the *Western Riverside County Multiple Species Habitat Conservation Plan* (MSHCP), including all of its appendices, as part of the Planning Department's environmental database.
Measure III.A.2	Provide training to City Planning Staff with respect to the project review procedures, conservation goals, biological survey and analysis criteria, mitigation fee structure, and coordination with regional agencies to ensure effective and efficient administration of habitat protection plans.

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FIGURE 4.4.3

South Perris Industrial
Environmental Impact Report

Drainage Features
Within the Biological Study Area

SOURCE: URS (2008)

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4.4.2.2 Regional Regulations

Western Riverside County Multiple Species Habitat Conservation Plan. The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional effort that provides a regional conservation solution to species and habitat issues. The underlying goal of the MSHCP is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas and other undeveloped lands.

The MSHCP was adopted on June 17, 2003. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the long-term conservation of species and their habitats in the Western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA) as well as the Natural Communities Conservation Plan (NCCP) under the State of California. Fish and Wildlife Service (USWFS) issued a Biological Opinion for the MSHCP on June 22, 2004. The California Department of Fish and Game (CDFG) also issued the NCCP Approval and Take Authorization for the MSHCP. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and fourteen cities (including the City of Perris), are allowed to authorize "incidental take" of plant and wildlife species of concern.

Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). The USFWS issued a permit to the Riverside County Habitat Conservation Agency on May 3, 1996, to incidentally take the Stephens' kangaroo rat (*Dipodomys stephensi*). The 30-year plan is designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions (including the City of Perris), and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied Stephens' kangaroo rat habitat in 7 Core Reserves encompassing over 41,000 acres. Currently 12,460 acres of occupied habitat exists within the Core Reserves.

4.4.2.3 State Regulations

California Endangered Species Act (CESA). The State of California has promulgated the California Endangered Species Act. The CESA is similar to the FESA in that its intent is to protect species of fish, wildlife, and plants that are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors.

"Take" as defined under CESA means hunt, pursue, capture, or kill, or attempt to hunt, pursue, capture, or kill. Under certain conditions, CESA has provisions for take through a 2081 Permit or a Section 2081 Memorandum of Understanding. The impacts of the authorized take must be minimized and fully mitigated. No permit may be issued if the issuance of the permit would jeopardize the continued existence of the species.

California Environmental Quality Act. Section 15380(b) of the *CEQA Guidelines* provides that a species not listed on the federal or state lists of protected species may be considered rare or endangered if the species can be shown to meet specified criteria. These criteria have been modeled after the definitions in FESA and CESA and § 2780–2781 of Article 1 of the California Fish and Game Code dealing with the California Wildlife Protection Act of 1990. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFG.

California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act. Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests except as otherwise provided for in the Fish and Game Code. The Migratory Bird Treaty Act (MBTA) similarly protects the nests of migratory birds. These regulations apply to the individual nests of these species, but do not regulate impacts to the species' habitats.

Streambed Alteration Agreement. Sections 1600 et seq. of the California Fish and Game Code define the responsibilities of the CDFG and require public and private applicants to obtain an agreement for projects that would "divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by CDFG in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or would use material from the streambed designated by the department." CDFG wardens and/or unit biologists typically have the responsibility for formulating and issuing Streambed Alteration Agreements. The CDFG, through provisions of the Code (Sections 1601–1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFG.

Native Plant Protection Act (NPPA). Sections 1900–1913 of the California Fish and Game Code (Native Plant Protection Act) direct the CDFG to carry out the Legislature's intent to "…preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

4.4.2.4 Federal Regulations

Federal Endangered Species Act (FESA). The FESA was promulgated to protect any species of plant or animal that is endangered or threatened with extinction. Section 9 of the FESA prohibits "take" of federally threatened or endangered wildlife. Take, as defined under the FESA, means to harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC 1532[19]). Section 9 also prohibits the removal and reduction of endangered plants from lands under federal jurisdiction, and the removal, cutting, digging, damage, or destruction of endangered plants on any other area in "knowing violation of State law or regulation."

Section 9 of the FESA (16 USC 1538) prohibits take of a federally listed endangered species of fish or wildlife except pursuant to a permit and Habitat Conservation Plan (HCP) approved under Section 10(a) of the FESA (16 USC 1539). The FESA prohibitions and requirements are different, however, for endangered species of plants. Section 9 prohibits the take of endangered plants only from areas under federal jurisdiction, or if such take would violate state law.

The proposed project site is located on private land. For listed plants located on private land, formal consultation with the USFWS is required when a project has a federal "nexus" (i.e., a federal permit is required or federal funding is involved). In the absence of a federal nexus, a project does not require a permit under the FESA for impacts to listed plants on private lands.

Clean Water Act. The ACOE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The ACOE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act is founded on a connection, or nexus,

between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the ACOE regulations). The ACOE typically regulates as non-wetland waters of the U.S. any body of water displaying an OHWM. In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

In 2006, the United States Supreme Court in the consolidated cases *Rapanos v. United States* and *Caravell v. United States*, Nos. 04-1034 and 04-1384 (*Rapanos*: June 19, 2006) addressed Clean Water Act (CWA) jurisdiction over wetlands adjacent or abutting navigable, non-navigable and ephemeral tributaries and jurisdiction over permanent and relatively permanent non-navigable tributaries. According to the United Sates Supreme Court, the CWA does not assert jurisdiction over upland erosional features, gullies, and roadside ditches that have infrequent, low volume, and short duration of water flow. The ACOE uses a significant nexus analysis. A water body is considered to have a "significant nexus" with a traditional navigable water (TNW)[1] if its flow characteristics and functions in combination with the ecologic and hydrologic functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water. Additional information is provided in the EPA memorandum titled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Caravell v. United States*," dated June 5, 2007 (ACOE 2007), and also the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (ACOE and EPA 2007).

The RWQCB is responsible for the administration of Section 401 of the Clean Water Act, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act.

4.4.3 Methodologies

4.4.3.1 MSHCP Compliance Report

The MSHCP Compliance Report identifies those provisions of the MSHCP that apply to the proposed project. This report summarizes the findings of the focused biological resource surveys and assesses how the project is consistent with the MSHCP. This report is included as Appendix D-5.

4.4.3.2 Vernal Pool and Fairy Shrimp Survey

Prior to visiting the study area, the MSHCP and other publically available sources were examined to determine the possible locations of riparian/riverine, vernal pool, and fairy shrimp habitats. Following the first major storm event of the season, general habitat assessment surveys were conducted on the 2nd and 9th of December 2008 to determine areas of pooling that could potentially sustain fairy shrimp or vernal pool species. Pools/swales were mapped as complexes in areas where multiple pools were formed in roadside ditches, pot holes or tire ruts. Wet-season sampling was conducted on December 18, 2008, and January 7, 2009. Wet-season sampling was initiated when any of the study area basins ponded a minimum of 1.0 inch of water and continued at two-week intervals until the basins were dry.

Study area basins were viewed prior to entering the water for large branchiopods. Any large branchiopods observed were quickly netted, viewed with the aid of a hand lens to determine species,

[1] A "traditional navigable water" includes all of the "navigable waters of the United States," defined in 33 C.F.R. § 329 and by numerous decisions of the Federal courts, plus all other waters that are navigable-in-fact.

and released unharmed back into the environment from which they were obtained. If no large branchiopods were observed, then a semi-quantitative sample was taken to determine the relative abundance of macroscopic invertebrates. After the taxonomic identification and enumeration were completed, the contents of the dip net were placed back into the basin from which they were collected. In addition, temperature, maximum and average ponding depth, potential maximum and average ponding depth, present and potential ponding surface area, and the habitat condition of each basin sampled within the study area was determined and recorded during each field visit.

A more detailed summary of the methodology utilized for the vernal pool/fairy shrimp survey is detailed in Appendix D-4.

4.4.3.3 Special Status Plant Survey

Prior to the field survey, readily available information from resource agencies, management plans and other relevant materials to determine the locations and types of biological resources that have the potential to exist within and adjacent to the BSA were reviewed. From this review, the potential for occurrence of special-status plant species in the BSA was determined.

Focused field and habitat based surveys of the BSA were conducted on nine separate dates during the fall of 2007, and the spring and summer of 2008. The surveys were performed to assess presence/absence and determine the potential for occurrence of common and special-status plant species, and their habitats. Prior to initiating plant surveys known plant populations in the local area were observed and local variation in flowering phenology were noted. Where access to the entire BSA was not possible as a result of private property or other physical barriers, observations were made from nearest appropriate vantage points to document and verify the presence or absence of biological resources.

These pedestrian-based field surveys of the BSA were also performed to assess general and dominant vegetation types, community sizes, habitat types, and species observed. Community types were based on observed dominant vegetation composition and density. Plants were identified to the lowest taxonomic level sufficient to determine whether plant species observed were non-native, native, or special-status. Plants of uncertain identity were collected and subsequently identified from taxonomic keys.

Additional information on the methodology utilized for the special status plant species survey is provided in Appendix D-3.

4.4.3.4 Focused Burrowing Owl Survey Report

Surveys included twelve (12) distinct visits to the study area, coinciding the burrowing owl nesting season occupancy in California and Arizona. The twelve visits (May through August 2008) involved systematic survey for burrows, owls, and their sign by walking through areas of suitable habitat within the study area. Pedestrian survey transects were spaced at approximately 30 meters (100 feet) to allow for complete visual coverage of the study area. The surveys were conducted following the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (County of Riverside, 2006). The assessments were performed by searching habitat typically utilized by burrowing owls including, but not limited to, native and non-native grassland, interstitial grassland within shrub lands, drainage ditches, earthen berms, unpaved fields, fallow fields, agricultural areas, and similar potential burrow locations.

A detailed accounting of the methodology utilized for the burrowing owl surveys is included in Appendix D-1.

4.4.3.5 Preliminary Jurisdictional Determination Report

Prior to conducting fieldwork, a literature review of all special aquatic resource areas within the study area was conducted. In September 2007 and August 2008 the study area was surveyed in order to determine the presence/absence and boundaries of special aquatic resource areas. Data related to United States Army Corps of Engineers (ACOE)-defined "waters of the US", including wetlands, were recorded where applicable. The evaluation process of suspected wetland habitats within the study area using the methodology for routine determinations set forth in the ACOE Wetland Delineation Manual and the Arid West Regional Supplement, included an assessment of hydrophytic vegetation per both the 1987 Manual and Arid West Supplement, and evaluated drainage areas using the methodology set forth in the ACOE and Environmental Protection Agency's (EPA) June, 2007 issued CWA Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States guidance documents (ACOE, 2007; ACOE, 2007c; ACOE, 2008). Streambeds and suspected riparian habitats were evaluated using the CFG Code (Section 1600 *et seq*.) and guidance described in *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607* (ESD-CDFG, 1994).

Each feature was classified as perennial, ephemera, intermittent, relatively permanent water (RPW), or non-RPW. Additionally, average width(s) for each feature's Ordinary High Water Mark (OHWM) and banks was determined by using a measuring tape in the field. Hydric soil and hydrology assessments were made using standard jurisdictional delineation reference materials.

A detailed accounting of the methodology utilized for the jurisdictional delineation is detailed in Appendix D-2.

4.4.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, biological resource impacts would occur if the proposed project would:

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Less than Significant Impacts

4.4.5.1 Endangered and Threatened Species

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Of the 21 "special status" plant species and thirty-three "special status" animal species that have the potential to occur within the USGS *Perris* and *Romoland, California* quadrangles, six plant and seven animal species have been designated as endangered or threatened by state and/or federal authorities (Table 4.4.A).

Table 4.4.A: Endangered/Threatened Species

Species	Status Designation	Potential for Occurrence
Munz's onion *Allium munzii*	Federal: Endangered State: Threatened	Absent[1]
San Jacinto Valley crownscale *Atriplex coronata var. notatior*	Federal: Endangered State: None	Absent[1]
Thread-leaved brodiaea *Brodiaea filfolia*	Federal: Endangered State: Threatened	Absent[1]
Slender-horned spineflower *Dodecahema leptoceras*	Federal: Endangered State: Endangered	Absent[1]
Spreading navarretia *Navarretia fossalis*	Federal: Endangered State: None	Absent[1]
California orcutt grass *Orcuttia californica*	Federal: Endangered State: Endangered	Absent[1]
Vernal pool fairy shrimp *Brachinecta lynchi*	Federal: Threatened State: None	Absent[2]
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: Endangered State: None	Absent[2]
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: Endangered State: None	Absent
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: Endangered State: Special of Special Concern	Absent
Coastal California gnatcatcher *Polioptila californica californica*	Federal: Threatened State: Special of Special Concern	Absent
Least Bell's vireo *Vireo belli pusillus*	Federal: Threatened State: Special of Special Concern	Absent
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: Endangered State: Threatened	Absent

Note 1: Special Status Plant Survey Report, Proposed South Perris Industrial, Perris, California, URS Corporation, June 17, 2009.
Note 2: Vernal Pool and Fairy Shrimp Survey Results – South Perris Industrial Project, Riverside County, California, URS Corporation, March 18, 2009.
Source: Appendices C & D, Western Riverside County MSHCP Compliance Report Proposed South Perris Industrial, Perris, California, URS Corporation, June 17, 2009.

The determination of absence was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the BSA for the referenced species. Though a Notice of Preparation response letter from Perris resident Tom Risher, who lives near the Phase 2 site, suggested that Stephens' kangaroo rat may be present on the Phase 2 site, no occurrence of any federal or state endangered/threatened species was detected during the focused biological resource

surveys conducted within the BSA. As no endangered or threatened species have been located within the limits of the BSA, no significant impact related to this issue would occur. In the absence of a significant impact, no mitigation is required.

4.4.5~~6~~.2 Riparian Habitat or Other Sensitive Natural Communities

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

As stated in Section 4.4.1.2, the BSA encompasses three vegetation communities: agricultural land, developed/disturbed land, and grassland. The vegetation found on agricultural lands that are dry land (non-irrigated) farmed consist of grain and seed crops, as well as seed producing grasses (e.g., primarily barley, cereal rye, oats, and wheat). Developed areas within the BSA includes roads (i.e., paved and dirt), fencing, and remnant structures related to previous human related activities. Most of this vegetation/habitat type within the BSA was lacking vegetation of any kind, due to previous development, disking, weed abatement and/or illegal dumping. Grasslands surveyed in the BSA ranged from scattered perennial bunch grasses with high abundance of non-native grasses and forbs to area dominated by native perennial grasses and herbaceous annual species. The vegetative communities identified within the BSA are designated as sensitive natural communities.

The BSA is located within the required survey areas for MSHCP riparian/riverine habitat and special status plant species. A discussion of these areas follows.

Riparian/Riverine Areas. The MSHCP defines Riparian/Riverine areas as natural "…lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year." The MSHCP further asserts, "…areas demonstrating characteristics as described above which are artificially created are not included" in the above referenced definitions.

Thirty-one (31) basins or pool complexes were identified and mapped within the BSA. None of the basins or complexes observed over the course of the biological resource surveys exhibited signs of being natural habitat. All basins or complexes and swales present within the BSA study area appeared to be artificially created (i.e., human-made in origin), consisting of depressions in disturbed soil conditions, road side ditches, and tire ruts. Typical vernal pool plant species indicators (e.g., *Downingia* ssp*., Lasthenia* and ssp*., Plagiobothrys* ssp.) were absent in all of the basins or complexes surveyed. Furthermore, no vernal pool endemic plant species were observed within the study area. The versatile fairy shrimp was the only shrimp species observed during wet-season surveys. The versatile fairy shrimp (*Branchinecta lindahli*) was observed in twelve of the 31 basins or pool complexes. The versatile fairy shrimp is considered a "weedy" species; is not endemic to California; nor has it been listed as threatened or endangered by state or federal authorities. Because the basins and pool complexes within the BSA do not possess required habitat requirements, these habitats do not meet the MSHCP definition of riparian/riverine habitat.[1] No significant impact related to the basin or pool features would result from the development or operation of the proposed project. In the absence of a significant impact to riparian/riverine habitat or sensitive natural communities, no mitigation related to this issue is required.

[1] Vernal Pool and Fairy Shrimp Survey Results – South Perris Industrial Project, Riverside County, California, URS Corporation, March 18, 2009.

4.4.5.3 Adopted Habitat Conservation Plans

Threshold	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project sites are subject to the provisions of two Habitat Conservation Plans: the Western Riverside County Habitat Conservation Plan and the Stephens' Kangaroo Habitat Conservation Plan (see Section 4.2.2.2). As requested in the August 7 Notice of Preparation response letter for the Riverside County Flood Control District, impacts related to the MSHCP are discussed in this section.

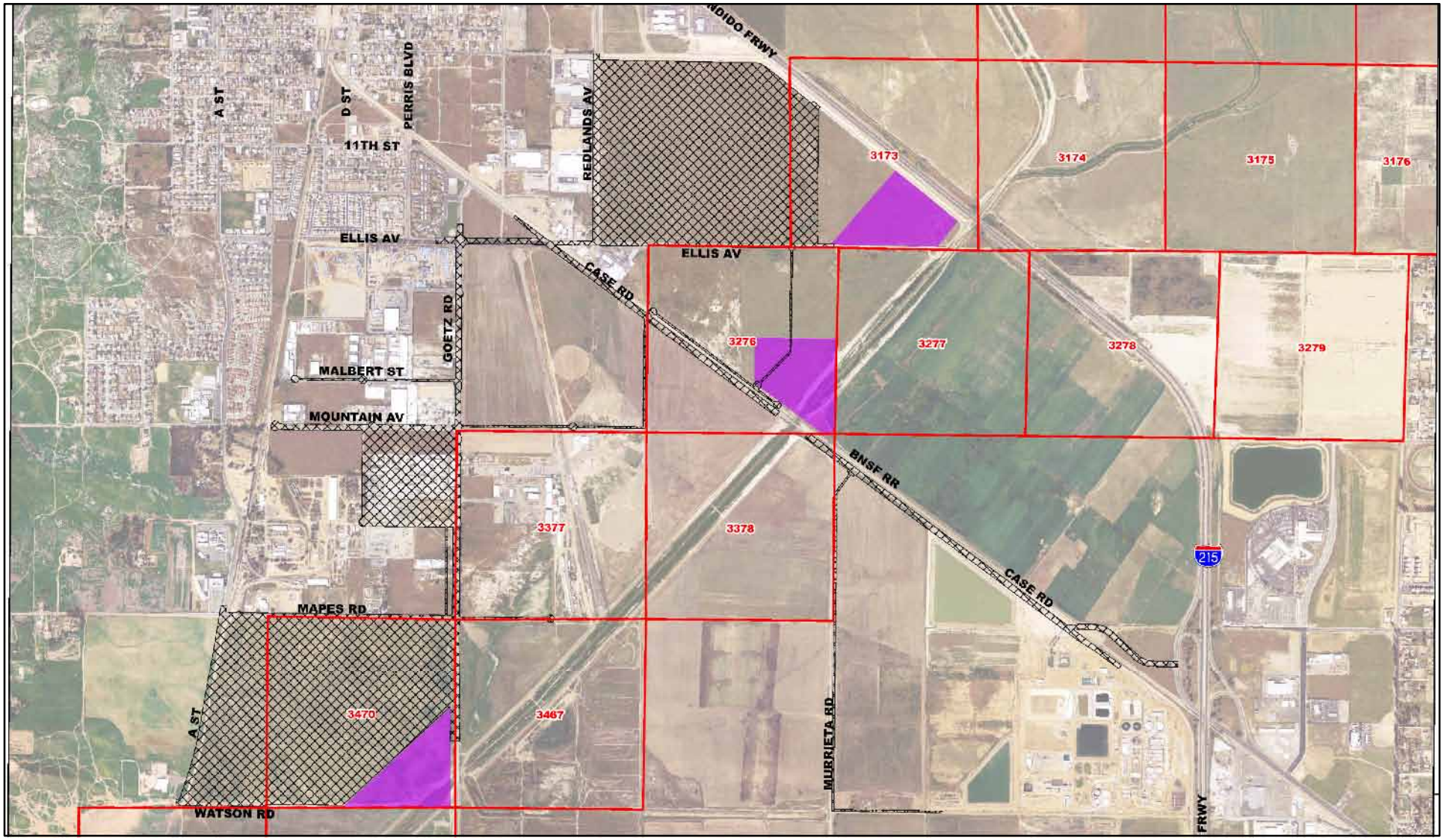
The BSA is located within Mead Valley Plan Area of the MSHCP. The BSA is partially within Sub Unit 4 – San Jacinto River Lower and Criteria Cells 3173, 3276, 3470, 3378, and 3277. Conservation within these cells will contribute to reserve assembly of Proposed Constrained Linkage 19. Within the project area, 73 acres adjacent to the San Jacinto River have been set aside for conservation as a result of discussions with the USFWS that were held during the Joint Project Review (JPR) process. The 73 acres are located within the BSA and along the San Jacinto River as indicated in Figure 4.4.4.

The project is considered a Covered Activity under Section 7.3 of the MSHCP. The Project is also required to adhere to the Best Management Practices found in Appendix C of the MSHCP. In summary, the Project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Mead Valley Plan Area. The BSA is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. All or portions of the BSA are located within areas requiring burrowing owl surveys or within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA) or Narrow Endemic Plant Species Survey Area (NEPSSA). Additionally, based on a review of the MSHCP and on-site soils and topography, areas within the BSA were suspected of being potential special aquatic resource areas (e.g., Waters of the United States, wetlands) and/or Riparian/Riverine habitats. Accordingly, focused biological resource surveys have been prepared to assess impacts to MSHCP resources within these areas. The results of focused surveys have been summarized in this EIR.

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP.

The project sites are within the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. Though a Notice of Preparation response letter from Perris resident Tom Risher, who lives near the Phase 2 site, suggests that the Phase 2 site is Stephens' kangaroo rat habitat, the proposed project site is not within a SKR Core Area. The SKR also requires species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats.

The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local mitigation fee are required.



LSA

FIGURE 4.4.4

Criteria Cell

Proposed Disturbance Area

Proposed Conservation Area

N

0 1,000 2,000

FEET

SOURCE: URS, March 09.

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South Perris Industrial
Environmental Impact Report

Criteria Cells and Conservation Areas

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4.4.5.4 Habitat Fragmentation/Wildlife Movement

Threshold	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The proposed development sites have been previously disturbed and diminished in quality either through past agricultural uses or the development of industrial uses. Due to the disturbed condition of the development sites and adjacent areas, development of the proposed project will not result in significant habitat fragmentation or substantially affect established wildlife corridors or wildlife movement. As no significant habitat fragmentation would result from the development of the proposed uses, no mitigation is required.

4.4.5.5~~3~~ Adopted Policies and/or Ordinances

Threshold	Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No policies or ordinances protecting biological resources other than compliance with State and federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are identified by the City. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the project site, no impact would occur. No mitigation is required.

4.4.6 Significant Impacts

4.4.6.1 Jurisdictional Waters/Wetlands

Impact 4.4.6.1: *The proposed project has the potential to affect jurisdictional waters.*

Threshold	Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As requested by the Riverside County Flood Control District in its August 7, 2008, letter in response to the Notice of Preparation of this EIR, the project's potential need for Section 401, 404, and 1602 permits is discussed in this section.

The ACOE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The ACOE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act is founded on a connection, or nexus, between the water body in question

and interstate commerce. Pursuant to Division 2, Chapter 6, Section 1600-1603 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife. CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

The study area is located in the Santa Ana Hydrologic Basin Planning Unit, within the San Jacinto Valley Hydrologic Unit and Perris Valley Hydrologic Sub-Area. The smallest watershed that contains the study area is the Perris Valley Hydrologic Sub-Area watershed, which is 106,375 acres in size. The Federal Emergency Management Agency (FEMA) designated 100-year floodplain, envelops approximately two-thirds of the study area. Upstream of the study area, the headwaters of the San Jacinto River originate from the San Bernardino National Forest, before emptying into Lake Hemet (contained by Hemet Dam.) Downstream of Lake Hemet the San Jacinto River flows into Mystic Lake and eventually southwest through the study area. Flows from the study area enter the San Jacinto River and drain downstream to the southwest for 7.1 miles to Canyon Lake and further downstream to Lake Elsinore. Lake Elsinore has very little outflow and in rare cases produces outfalls that enter Temescal Wash, which flows to the Santa Ana River and ultimately the Pacific Ocean. Because of low annual average precipitation; numerous upstream and downstream impoundments; absence of lack of dense, mature riparian vegetation; and the nature of historic flows through the study area, the San Jacinto River within the study area does not sustain continuous flow and is not considered to contain Relatively Permanent Flows (i.e., greater than 3 months). Therefore, the San Jacinto River within the study area is a considered a non-Relatively Permanent Water directly connected to a TNW. All remaining features within the study area are ephemeral and considered non-Relatively Permanent Waters indirectly connected to a Traditional Navigable Water (TNW).

The study area contains 13 drainage features, two of which (Features 7 and 9) are identified as blue line drainages on USGS topographic maps (see Figure 4.4.3). Table 4.4.B summarizes the acreage and whether or not the feature is isolated from the upstream watershed. Feature 7 (the San Jacinto River), drains the vast majority of the San Jacinto Valley Watershed to the east of the study area. Feature 9, an earthen artificial flood control feature constructed by the Riverside County Flood Control and Water Conservation District (RCFCWCD), includes the next largest upstream drainage area totaling approximately 463 acres. Feature 9 drains developed residential and commercial lands located east of A Street/Santa Fe Railroad. Much of Feature 9's watershed to the west of A Street/Santa Fe Railroad has been heavily developed with private and public infrastructure, which has altered the natural flow within the watershed and has effectively isolated the study area from the remainder of the western portion of the Perris Valley Hydrologic Sub-Area.

Table 4.4.B: Drainage Features within the BSA

Drainage Feature	Localized Drainage Area (acres)	Isolated from Upstream Watershed
Feature 1	232	Yes
Feature 2	532	Yes
Feature 3	329	Yes
Feature 4	532	Yes
Feature 5	329	Yes
Feature 6	139	Yes
Feature 7	>3,679	Yes
Feature 8	463	Yes
Feature 9	463	No
Feature 10	178	Yes
Feature 11	54	Yes
Feature 12	54	Yes
Feature 13	232	Yes

Source: Table 2, Preliminary Jurisdictional Determination Report, South Perris Distribution Center Project, URS Corporation, June 17, 2009.

The remaining features consist of roadside ditches that drain relatively small, localized upland areas (primarily consisting of agricultural fields and surface water runoff from developed lands.) These features are excavated wholly in, and draining only uplands that do not contain relatively permanent flows. Each of these features appears to be relatively isolated from the upstream portion of San Jacinto Valley Watershed. Therefore, the relevant reaches of these features are considered relatively small and isolated – draining only portions of the upstream areas to the west and north of the study area.

United States Army Corp of Engineers Jurisdiction Subject to Section 401 of the Clean Water Act. Features 1, 3, 8, and 13 are isolated features that are not TNWs, relatively permanent waters tributary to a TNW, wetlands abutting TNW or Relatively Permanent Waters (RPWs); therefore, these features are not considered subject to the CWA. Features 2, 4, 5, 6, 10, 11, and 12 are roadside ditches that drain localized, ephemeral surface water runoff from surrounding upland residential, commercial, and/or agricultural lands. These features are excavated wholly in, and drain only upland areas. The majority of the upstream watershed for these features provides very limited flow through the study area; natural flows have been obstructed or diverted, mainly as a result of road development and a general lack of functional flood control structures. Therefore, Features 2, 4, 5, 6, 10, 11, and 12 are characterized as draining relatively small surface areas within a relatively flat, disturbed area, having very short tributary lengths. Furthermore, the low annual precipitation within the region provides minimal volume, low frequency flow within the study area. As a result, these features are not likely to carry substantial quantities of pollutants to a TNW and they do not provide substantial beneficial nutrients to downstream food webs. Consequently, these features are not assumed to contribute substantially to the integrity of any downstream TNW or wetland habitats. Based on these factors, Features 2, 4, 5, 6, 10, 11, and 12 do not have a more than speculative or negligible effect on the chemical, physical, and/or biological integrity of any downstream TNW. Therefore, these features do not contain a significant nexus to a TNW and are not considered to be subject to CWA jurisdiction.

Features 7 and 9 extend for 10,445 and 6,479 linear feet through the study area. Feature 9 empties into the San Jacinto River. Features 7 and 9 include a substantially relevant reach and include a relatively large upstream drainage area. As such, Feature 7 and 9 transport a large volume of water during heavy storm events, likely flow for a considerable duration following substantial storm events, and are within 7.1 miles of the nearest TNW and have a significant nexus to a downstream TNW and are, therefore; subject to CWA jurisdiction. While a significant nexus to a TNW has been established for Feature 7, it is not located within the area to be disturbed by the development of the proposed uses. Table 4.4.C identifies the affected ACOE jurisdictional areas within the BSA.

Table 4.4.C: Impacts to Clean Water Act Jurisdictional Waters

Drainage Feature	Waters of US (acres)	ACOE-Defined Wetlands (acres)	Total CWA Jurisdictional Impact (acres)
Feature 7	0	0	0
Feature 9	0.11	0	0.11
Total	**0.11**	**0**	**0.11**

Source: Table 3, Preliminary Jurisdictional Determination Report, South Perris Distribution Center Project, URS Corporation, June 17, 2009.

Section 401 Clean Water Act. Regional Water Quality Control Board (RWQCB) jurisdiction subject to Section 401 of the CWA mirrors ACOE jurisdiction. In the absence of CWA Section 404 jurisdiction over isolated waters, RWQCB jurisdiction is typically extended through the Porter Cologne Act to waters of the State defined within Section 13050(e) (et seq.) of the California Water Code (CWC) as, "any surface or ground water, including saline waters, within the boundary of the state." Thus, waters

of the State include surface or ground water, which includes isolated and ephemeral special aquatic resources. Porter-Cologne provides a comprehensive framework to protect water quality in California. It requires that anyone who plans to discharge waste where it might adversely affect waters of the State must first notify the RWQCB, which can impose requirements as necessary to protect water quality (Cal. Water Code § 13000 et seq.). Consequently, impacts to Features 7 (San Jacinto River) and 9 are subject to CWA Section 401 Water Quality Certification. Nonetheless, Feature 7 will not be impacted by the Project.

California Department of Fish and Game Jurisdiction, Sec. 1600. Features 1, 2, 3, 4, 5, 6, 8, 10, and 11 are not subject to CDFG jurisdiction because they: 1) are artificially-constructed ephemeral features that have been excavated for water conveyance purposes, 2) lack the attributes of a natural waterway; 3) provide no habitat for fish, wildlife, aquatic insects, or riparian species; 4) receive ephemeral upland flows from road runoff; and/or 5) do not contain a defined bed, bank, or channel.

Feature 7 contains sparse riparian vegetation consisting of mulefat (*Baccharis salicifolia*) individuals. While Drainage 9 is an unvegetated artificially-constructed feature that lacks the attributes of a natural waterway, it contains a defined bed and bank and provides suitable habitat for fish and wildlife - including burrowing owl (*Athene cunicularia*). Feature 12 was excavated in uplands for water conveyance purposes and collects ephemeral surface water runoff from Case Road and adjacent agricultural fields. It contains a bed width of 2 feet and a bank width of 42 feet as it approaches the San Jacinto River. Vegetation within the feature includes low density upland vegetation species such as Russian thistle (*Salsola tragus*), black mustard (*Brassica nigra*), and foxtail chess (*Bromus madritenis* ssp. *rubens*). This artificially-constructed feature has acquired the attributes of a natural stream course and includes a well-defined bed and bank. Within the BSA, Features 7, 9, and 12 have been identified as falling under CDFG jurisdiction. Of these, only Features 9 and 12 will be impacted by the development of the proposed uses. Table 4.4.D identifies the ACOE jurisdictional areas within the BSA.

Table 4.4.D: Impacts to California Department of Fish and Game Jurisdictional Areas

Drainage Feature	Upland-Vegetated Channel (acres)	Total CDFG Jurisdictional Impact (acres)	Linear Feet of Streambed Affected
Feature 7	0	0	0
Feature 9	0.11	0.11	118
Feature 12	0.22	0.22	484
Total	**0.11**	**0.33**	**602**

Source: Table 4, Preliminary Jurisdictional Determination Report, South Perris Distribution Center Project, URS Corporation, June 17, 2009.

Any measurable modifications to the drainage, or any measurable dredge, fill, or placement of anything into the watercourse would trigger impacts. A Section 404 Permit from the ACOE, a Section 401 Water Quality Certification from the RWQCB, and a 1602 Streambed Alternation Agreement from CDFG would be required for impacts to jurisdictional waters of the U.S. and the State and areas regulated by the RWQCB. Based on the jurisdictional delineation, implementation of the proposed project would result in permanent impacts to 0.11 of non-wetland waters of the United States. Additionally, the proposed project would permanently impact 0.33 acre (602 linear feet) of CDFG jurisdiction non-riparian streambed. This is a significant impact requiring mitigation.

Mitigation Measures. The following mitigation measures have been identified to reduce the significance of potential impacts to jurisdictional waters:

4.4.6.1A Prior to the issuance of grading permits for the affected areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the ACOE, a Section 401 Permit from the RWQCB, and a Section 1602 Streambed Alteration Agreement from the CDFG have been obtained for jurisdictional waters on each of the sites.

4.4.6.1B Prior to the issuance of grading permits for the affected areas, the project applicant shall compensate for the loss of jurisdictional resources by creating non-wetland waters of the U.S./Streambed as directed through consultation with the ACOE and the CDFG.

Level of Significance after Mitigation. To obtain authorization to disturb regulated aquatic resources, a permit applicant must identify the jurisdictional waters present, avoid the protected resources where possible, minimize the unavoidable impacts, and then provide compensatory mitigation for any remaining impacts. The first step of mitigation is to avoid impacts to wetlands or streams. When impacts cannot be avoided, the second step is to minimize impacts as much as possible. The last step of mitigation is compensation. A Section 404 authorization contains requirements and conditions specific to the proposed construction project. To maintain ACOE authorization for disturbance to Waters of the US, the project applicant is required to fully adhere to the conditions detailed in the 404 permit. Failure to abide to permit conditions may result may result in an enforcement action against the permit applicant, which may include a cease and desist order to stop all project work and fines of up to $25,000 per day until compliance is met.[1]

Applicants receiving a Section 404 permit from the ACOE are required to obtain a Section 401 water quality certification from the RWQCB. Issuance of a certification means that the RWQCB anticipates that the applicant's project will comply with state water quality standards and other aquatic resource protection requirements. Conditions of the Section 401 Certification become conditions of the federal permit.

Authorization of a Streambed Alternation Agreement under Section 1602 of California Fish and Game Code requires the following: 1) the project applicant provides written notification regarding the activity in the manner prescribed by the department; 2) The CDFG determines the notification is complete; 3) the project applicant pays the applicable fees; and 4) as appropriate, the project applicant incorporates into the project reasonable measures necessary to protect the affected resource, and conducts activities in accordance with the provisions of the agreement.[2] To maintain CDFG authorization for alteration of the affected resources, the project applicant is required to fully adhere to the conditions detailed in the Section 1602 permit.

As part of the permit process, the project applicant will consult with the ACOE, CDFG, and RWQCB to ensure impacts to jurisdictional areas are appropriately mitigated. **Mitigation Measure 4.4.6.1A** requires the project applicant to acquire the necessary permits, while **Mitigation Measure 4.4.6.1B** will compensate for the loss of jurisdictional resources. The amount, extent, and/or location of mitigation will be identified through the consultation process. It is assumed that the regulatory agencies will identify mitigation that fully compensates for the project-specific impact to jurisdictional resources that may result from the development of the proposed project. As compensatory mitigation will be identified through the permit process, and because adherence to the provisions of the permit is required to maintain permit authorization, it is reasonable to conclude that the mitigation identified will reduce impacts to jurisdictional resources to a less than significant level.

[1] 10.40 Wetlands and Section 404 Permits – Introduction, http://www.erl.dot.state.ia.us/Oct_2008/CM/content/10-40.htm, site accessed February 6, 2009.

[2] California Fish and Game Code, Section 1602, http://law.onecle.com/california/fish/1602.html, site accessed February 6, 2009.

4.4.6.2 Candidate, Non-listed Sensitive, or Special Interest Species

Impact 4.4.6.2: *The proposed project has the potential to affect the burrowing owl, California horned lark, and the loggerhead shrike; non-listed species that are each designated "species of special concern" by the California Department of Fish and Game.*

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

Thirty-three (33) special-status wildlife species are reported to occur within the USGS *Perris* and *Romoland, California* quadrangles. Due to restrictive habitat requirements and conditions within the BSA, thirty (30) of these special-status wildlife species were determined to be absent from the BSA;[1] therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

Three special-status species were observed during the biological resource surveys. The three special status species (each designated a California species of special concern[2]) observed include:

- Burrowing owl (*Athene cunicularia*);
- California horned lark (*Eremophila alpestris actia*); and
- Loggerhead shrike (*Lanius ludovicianus*).

California Horned Lark and Loggerhead Shrike. These two special status avian species were identified in the BSA during biological resource surveys. Special-status species that do not receive federal or state ESA protection (e.g., California horned lark and loggerhead shrike), but are covered under the take and incidental take provisions of the MSHCP, do not require further survey or study to determine likely presence, absence, or project-related effects.

While these two species do not require further study, to ensure compliance with the MSHCP and applicable provisions of the MBTA, pre-construction surveys will be required of the intended development areas. The pre-construction surveys will determine whether special status avian species are actively nesting within the intended area of disturbance. In this event, construction activities in the vicinity of nesting activity will be limited until such time nesting activity has been completed. These measures will ensure individuals and nesting activity are not adversely impacted during the construction of the proposed developments.

Burrowing Owl. For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken.

An initial habitat assessment for burrowing owl was conducted on May 1, 2008. Burrowing owls prefer open, dry annual or perennial grasslands, agricultural and rangelands, deserts, and scrublands

[1] Consult Appendix D of Appendix D-1.

[2] State Species of Special Concern" status applies to animals not listed for protection under the Federal Endangered Species Act (1973) or the California Endangered Species Act. The designation denotes that a species is declining at a rate that could result in State listing, or that a species has historically occurred in low numbers and known threats to their persistence currently exist. In essence, the designation is intended to result in "special consideration" for these animals during the environmental review and discretionary permitting processes. In addition, the designation is also intended to focus research and management attention on poorly-known potentially at-risk species by stimulating the collection of additional information on their biology, distribution, and status.

characterized by low-growing vegetation. Burrowing owls also prefer areas inhabited by small mammals as they predominately depend on their burrows (particularly ground squirrels) for subterranean nesting. Based on the initial habitat assessment, the BSA contains habitat suitable to support the burrowing owl.

Subsequent focused surveys were conducted during 12 separate visits between June 20 and August 12, 2008. These subsequent focused owl surveys were directed toward determining owl presence and/or utilization of previously identified burrows. The study area, which includes the actual area of ground disturbance due to project construction and a 500-foot (150-meter) buffer surrounding the project area, was investigated methodically during each event and the route used to survey the habitat was arranged to ensure complete coverage. Binoculars were also utilized to aid in detecting and identifying bird species and potential burrow sites. Occupied burrows were defined as burrows that contained an owl or showed signs of recent owl presence (e.g., tracks, whitewash, pellets, disarticulated prey, and/or feathers). Abandoned burrows were void of the above referenced sign and often contained cobwebs, trash, or vegetation that obstructed the burrow opening. Incidental observations of all wildlife species were recorded as well. The presence of bird species was based on direct observation or vocalization.

The focused burrowing owl survey determined that two groups of distinct paired adult burrowing owls were utilizing portions of the study area for foraging, dispersal, and/or refuge purposes during June and July of 2008. Additionally, a single unpaired adult owl was observed in July and August utilizing portions of the study area for foraging and/or refuge purposes. All burrowing owls were observed within the 500-foot buffer of the project and no burrowing owls or active burrows were observed within the project's proposed physical ground disturbance footprint. Based on the aforementioned findings and the Species Conservation Objectives under the MSHCP, Volume II; there is no MSHCP obligatory conservation for the observed owls.

While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the study area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation.

Plant Survey Areas. The BSA is located within an MSHCP designated Criteria Area Plant and Narrow Endemic Plant Survey Area. In accordance with MSHCP requirements, focused special status plant surveys were conducted in February and October 2007, and May, July, and August 2008. These surveys were conducted to assess the impacts of the proposed project on special-status plant species.[1]

Twenty-one special-status plant species are reported to occur within the USGS *Perris* and *Romoland, California* quadrangles. Of these, twenty were determined to be absent from the BSA. The BSA was assessed in the field for its potential to support both common and special-status species based on habitat suitability comparisons with reported occupied habitats. Throughout the focused plant surveys, only one special status species (smooth tar plant) was identified within the BSA. While this species is not identified as endangered or threatened, it is a species covered under the MSHCP. This species was indentified in two locations within the BSA; the first near the Perris Valley Airport north of Mountain Avenue, and the second north of Ellis Avenue and south of I-215. Neither of these locations is within the project's proposed area of disturbance; therefore, the development of the proposed uses would not impact the habitat for any special status plant species.

[1] For the purposes of this analysis, "special-status species" include any plant species that has been afforded special recognition by federal, state, or local resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Game (CDFG), etc.) and/or resource conservation organizations (e.g., MSHCP, and California Native Plant Society [CNPS]).

Mitigation Measures. The following measures have been identified to reduce the significance of potential impacts to special status bird species:

4.4.6.2A The clearance of vegetation within the BSA that supports special status species or protected avian species shall not occur within the typically avian nesting season (March 1 to June 30).

4.4.6.2.B Access to proposed development sites shall be via existing routes, or shall be limited to the minimum extent/length required to provide safe and timely access. Known occupied burrows within the BSA, but outside the proposed development sites shall be avoided.

4.4.6.2.C No more than 72 hours prior to initiation of ground-disturbing activities, a pre-construction survey shall be completed by a qualified biologist. The survey will identify (if any) special status avian species within the area of intended disturbance. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, **Mitigation Measure 4.4.6.2.E** shall apply.

4.4.6.2.D No more than 72 hours prior to initiation of ground-disturbing activities, a pre-construction burrowing owl survey shall be completed by a qualified biologist for the planned disturbance area and a 500-foot (150-meter) buffer area. The pre-construction burrowing owl surveys may be conducted as part of the survey required in **Mitigation Measure 4.4.6.2.C.** A report detailing the findings of the pre-construction survey shall be submitted to the City prior to the initiation of ground-disturbing activities. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, **Mitigation Measures 4.4.6.2.E** and **4.4.6.2.F** shall apply.

4.4.6.2.E If nesting special status avian species are determined to occupy a proposed area of disturbance, no construction activity shall take place within 500 feet of an active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow.

4.4.6.2.F If active burrowing owl burrows are detected outside the breeding season, then passive and/or active relocation may be approved following consultation with CDFG and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens.

Level of Significance after Mitigation. Implementation of the above-listed mitigation measures would reduce impacts to migratory bird species and non-listed special status avian species to a less than significant level.

4.4.7 Cumulative Impacts

The cumulative area for biological resources is the MSHCP area. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As stated in its Conservation Element, the City reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. As a signatory to the MSHCP Implementing Agreement, the City has been issued “Take Authorization” which allows the implementation of land use decisions consistent with the MSHCP without individual authorization by state or federal authorities. As required

by the MSHCP, focused biological resource studies have been conducted to assess potential impacts associated with development of the proposed uses. Where impacts to special status bird species and jurisdictional areas have been identified, mitigation has been identified to reduce the project specific impacts to a less than significant level. Additionally, the MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP. In fact, habitat lands created by the MSHCP also have biological benefits for species technically not covered by the MSHCP, such as the burrowing owl. Habitat acquired by the MSHCP is suitable for owl habitat. The latest adjustment of the MSHCP fee mitigation (July 1, 2008) allows the collection of fees of $6,597 per acre of industrial development. The payment of required MSHCP is a standard requirement for all development occurring within the MSHCP area.

Because the MSHCP provides a regional and comprehensive approach to conservation planning, and through the implementation of the stated mitigation for project-specific impacts and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses.

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4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section identifies and evaluates the proposed project's potential to have adverse effects on archaeological, historical, and paleontological resources. The resources of concern include, but are not limited to, prehistoric and historic artifacts, burials, sites of religious or cultural significance to Native American groups, and historic structures. This section provides a detailed discussion of impacts potentially attributable to the proposed project, and criteria used to determine impact significance to cultural resources.

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Cultural Resources Assessment*, Phase I Archeological Assessment of First Park South 215, URS Corporation, July 15, 2008 (Appendix E-1 of this EIR).
- *Cultural Resources Assessment,* Goetz Road Project, LSA Associates Inc. May 2009 (Appendix E-2 of this EIR).
- *Paleontological Resources Assessment*, Goetz Road Project, LSA Associates, Inc., July 12, 2006 (Appendix E-3 of this EIR).
- *Phase I Archaeological Assessment of Proposed Airport Distribution Center*, URS Corporation, January 29, 2009 (Appendix E-4 of this EIR).

In addition to this technical study, the analysis contained in this section is also based on the following reference documents:

- Perris General Plan Conservation Element, adopted July 12, 2005.

4.5.1 Existing Setting

4.5.1.1 Archaeological Resources

Archaeological resources are those associated with prehistoric cultural sites, prehistoric isolates, and the remnants of historic cultural sites that lack substantive building remnants (termed "historic archaeological sites") such as roads and trails. Prehistoric cultural resources consist of those physical properties that predate the advent of written records in a particular region that are considered important to a culture, subculture, or community for scientific or humanistic reasons. These include geographic districts, structures, sites, objects, and other physical evidence of past human activity. Similar to prehistoric cultural resources, historic cultural resources in a particular geographic region are considered important to a culture, subculture, or community, and postdate the advent of written records. As part of its General Plan Update, the City conducted an archaeological records search at the Eastern Information Center (EIC) at the University of California, Riverside. The results of this records search ascertained that approximately 80 percent of the City had never been surveyed by an archaeologist or architectural historian.[1] According to files at the EIC, nine prehistoric and ten historic archaeological sites occur in the City.[2] These are milling slick sites, several of which exhibit extensive pictographs (rock art), and a few small stone flake scatters. The historic sites consist of the remnants (such as foundations) of historic buildings and/or ranch complexes. No archaeological resources have been identified on the three sites.

[1] Conservation Element, City of Perris General Plan.
[2] Conservation Element, City of Perris General Plan.

4.5.1.2 Historic Resources

Ninety-one historic sites, consisting of buildings or linear features more than 45 years of age, are located within the City limits.[1] The archaeological records search did not identify any such features within the project limits. The project site is located within an area identified with a "low" sensitivity for cultural resources.[2] This classification is assigned to areas of the City with one or fewer recorded sites per square mile. No historic resources have been identified on the three sites.

4.5.1.3 Paleontological Resources

The project site is surrounded by mountains and hills of Cretaceous granodiorite that has intruded and metamorphosed Jurassic sedimentary and volcanic rocks. The site itself is situated on a thin cover of Holocene alluvium underlain by older Pleistocene alluvium. These very old alluvial deposits of late to middle Pleistocene age may be older than the fossiliferous sediments in Diamond Valley. The presence of fossil bison from the Diamond Valley Reservoir and French Valley excavations indicates that the period of deposition was during the last 150,000 years.

More than 1,700 discrete paleontological resource localities are known from excavation of the Diamond Valley Reservoir eleven miles southeast of Perris. These localities have produced more than 70 late Pleistocene plant and animal taxa. The high potential for near-surface Pleistocene fossils from Menifee Valley and north across the Perris Plain has been noted, and Ice Age horse, camel, and deer have been recovered from the nearby projects in Menifee Valley and French Valley. East of Perris, in the central portion of the Perris Block, the Lakeview Hot Springs site has produced a complex fauna including the saber cat *Smilodon* in association with mammoth and other large and small mammals, reptiles, and gastropods, as well as wood and seeds. These fauna from the central Perris Block indicate that terminal Pleistocene time (10,000 years before present [ybp]) occurs as near the surface as 4.5 m (15 ft). Slow rates of deposition and shallow depths to Pleistocene and Pliocene fossiliferous sediments also are indicated by the presence of the Nomlaki Ash 6 m (20 ft) deep in excavations at Romoland. This early Pliocene Ash has been dated at 4.5 million years.

Northeast of Perris, in eastern Moreno Valley, fossil *Bison* sp. has been recovered from Moreno Valley in sediments south of SR-60 at Redlands Boulevard in eastern Moreno Valley. Vertebrate fossils from the Elsinore Trough to the south have been used to determine the Pliocene age of the Temecula Arkose and the Unnamed Sandstone, and the Pleistocene age of the Pauba Formation. Large fossil mammals known from the area include horse, camel, sloth, and mammoth. The paleontological literature search indicated that there was potential for significant, nonrenewable resources to be encountered by construction excavation on the three project sites.

4.5.1.4 Ethnographic Context

The project is located within the traditional cultural territory of the Luiseño. Prior to Spanish occupation of California, Luiseño territory extended along the coast from Agua Hedionda Creek to the south, Aliso Creek to the northwest, and the Elsinore Valley and Palomar Mountain to the east. These territorial boundaries were somewhat fluid and changed through time. They encompassed an extremely diverse environment that included coastal beaches, lagoons and marshes, inland river valleys and foothills, and mountain groves of oaks and evergreens.

Like other Native American groups in southern California, the Luiseño caught and collected seasonally available food resources and led a semi-sedentary lifestyle. Luiseño villages generally were located in valley bottoms, along streams, or along coastal strands near mountain ranges

[1] Conservation Element, City of Perris General Plan.
[2] Exhibit CN-6: Cultural Resource Sensitivity, City of Perris General Plan Conservation Element, City of Perris, July 12, 2005.

sheltered in coves or canyons, near water sources, and in easily-defended locations. Individuals from these villages took advantage of the varied resources available. They also established seasonal camps along the coast and near bays and estuaries to gather shellfish and hunt waterfowl.

The descendants of the Luiseño people are divided among several tribal entities in southern California including the Soboba Band of Luiseño Indians in San Jacinto; the Pechanga Band of Luiseño Indians in Temecula; and the La Jolla, Pala, Pauma, and Rincon Bands of Luiseño Indians in San Diego County.[1]

4.5.1.5 Methodology

Research. For the Phase 1 site, URS conducted a record search at the EIC. For the Phase 2 site, LSA conducted a records search at the EIC, in May 2006 and again in May 2009. In addition to the records search, historic General Land Office and USGS maps were reviewed and a land patent search was conducted for Phase 2 on May 22, 2009. For the Phase 3 site, URS conducted a recorded search at the EIC in May 2006. The EIC is the local branch of the California Historical Resources Information System (CHRIS). Cultural resource maps at the EIC were checked for possible prehistoric and historic resources previously recorded within and adjacent to the project area. To supplement the CHRIS data, a review was conducted of the National Register of Historic Places Index, Office of Historic Preservation Directory of Properties, and historic USGS topographic maps.

Available geologic and paleontological literature was reviewed to determine the potential for paleontological resources to occur in sedimentary deposits within the parcel. The Paleontological Resource Sensitivity Map from the Riverside County Planning Department was consulted to determine the paleontological sensitivity determined for the parcel.

Field Survey. In January 2009, URS conducted a pedestrian survey of the Phase 1 site. Parallel 15-meter (m), east-west transects were performed within the project area, directly south of Mountain Road, and east of Goetz Road. Ground surface was inspected for the presence of historic and prehistoric artifacts and features. Project area corners and various feature locations were recorded using a handheld global positioning system and digitally photographed.

In May 2006, LSA conducted a pedestrian survey for the Phase 2 project site by walking parallel transects spaced across the open areas approximately 15 meters (45 feet) apart. Soil profiles were examined for cultural stratigraphy, and rodent back dirt was checked for cultural remains. In addition, an intuitive foot survey for paleontological resources was conducted in June 2006 for the Phase 2 site. The survey consisted of the paleontologist walking transects over the project area. Due to a thin layer of vegetation, ground visibility was good. No soil profiles were exposed to examine for stratigraphy. Rodent back dirt was checked for paleontological remains. LSA conducted another intensive survey in May 2009. Due to poor surface visibility of the majority of the project area, the follow-up survey focused on sampling various areas within the project. Disked areas on the perimeter of the project (approximately 20 meters wide) and eight north-south swaths (12–18 meters wide spaced an average of approximately 100 meters apart). The disked areas were surveyed utilizing 15-meter transects, sparse/'bald' areas of the grain field in the project area between the north-south disked swaths were intuitively surveyed and each corner acre was closely examined for historic and prehistoric residues. Two random 5-acre areas of grain field were also closely surveyed for variation of visibility.

For the Phase 3 site, in August 2007, URS conducted a pedestrian survey by walking parallel 15-meter (approximately 45 feet) north-south transects within the site directly north of Ellis Avenue, south

[1] http://www.soboba-nsn.gov/history.html , site accessed November 3, 2008.

of 7th Street, east of Redlands Avenue, and west of I-215. The ground surface was inspected for the presence of historic and prehistoric artifacts and features.

Senate Bill (SB) 18 Consultation. Of the three project sites, only the Phase 3 site would require a General Plan Amendment and Zone Change to change land use from "Specific Plan" to "General Industrial." Because the other two sites (Phase 1 and Phase 2) do not require a General Plan Amendment, they would not be required to complete SB 18 consultation. On May 20, 2008, a letter was sent to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File (SLF) search for the presence of Native American resources for the Phase 3 project site and its vicinity. In a response letter dated May 20, 2008, the NAHC stated that the search of the SLF failed to identify any known Native American resources in the immediate project area; however, the NAHC recommended seven Native American contacts who may have knowledge of cultural resources in or near the Phase 3 project site.[1]

As part of the NOP process and in accordance with SB 18 Native American Consultation requirements, the City of Perris mailed letters to each of these contacts. The letters included a brief project description and map showing the project location, and asked that the tribes contact the City of Perris Planning Department with input regarding the presence of cultural resources in the project area. One tribe (Pala Band of Mission Indians, correspondence dated August 21, 2008) determined that the project site is not within the boundaries of its Traditional Use Area; one tribe (Soboba Band of Luiseño Indians, correspondence dated July 16, 2008) requested further consultation and a copy of any documents; one tribe (Pechanga Band of Luiseño Indians, e-mail correspondence dated August 8, 2008) requested "formal consultation" and a copy of documents; and one tribe (Morongo Band of Mission Indians, correspondence dated July 23 and July 31, 2008) requested notification if cultural material was found during project-related activities. Copies of the NOP and tribal responses to the NOP and the consultation request are provided in Appendix A of the EIR.

On July 9, 2009, representatives of the City, the Soboba Tribe and the applicant met to discuss the project as a part of the SB 18 consultation. The tribe requested a pre-construction (pre-grading) meeting due to the proposed mass grading of the sites and expressed concerns regarding the potential sensitivity of Phase 2 and noted the relevance of the project area as a Traditional Use Area. The tribe also requested that discovered artifacts be allowed to stay in place and buried under landscaping and pavement with no identifying plaque.

On July 10, 2009, representatives of the City, the Pechanga Tribe and the applicant met to discuss the project as a part of the SB 18 consultation. The tribe requested the review of any Cultural Resource Assessments for the project upon their completion. Like the Soboba Tribe, the Pechanga Tribe mentioned the relevance of the area and that tribes traditionally settled along the San Jacinto River and concerns over the potential sensitivity of Phase 2. One site (Historic Site No. 16379) near Phase 2 of the project was brought up as a concern. Further research after the SB 18 consultation determined that this is the site of the Orange Empire Rail Museum and it is not of tribal significance.

4.5.2 Existing Policies and Regulations

4.5.2.1 Federal Regulations

National Historic Preservation Act (NHPA) of 1966 (as amended), Section 106. The NHPA declares a national policy of historic preservation to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture. The NHPA established the National Register of Historic Places (National Register), State

[1] Cahuilla Band of Indians, Santa Rosa Band of Mission Indians, Pechanga Band of Luiseño Indians, Morongo Band of Mission Indians, Ramona Band of Missions Indians, Soboba Band of Luiseño Indians, and San Manuel Band of Mission Indians.

Historic Preservation Offices (SHPOs) and programs, and the Advisory Council on Historic Preservation. This Act applies to all properties on or eligible for inclusion in the National Register. The Section 106 review process requires consultation to mitigate damage to "historic properties" (defined per 36 CFR 800.16[1] as places that qualify for the National Register), including Native American traditional cultural places (TCPs). Evaluation of cultural resources consists of determining whether it is significant (i.e., whether it meets one or more of the criteria for listing in the National Register). These eligibility criteria are defined in 36 CFR 60.4 as follows:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association:
>
> A. That is associated with events that have made a significant contribution to the broad patterns of our history;
>
> B. That is associated with the lives of persons significant in our past;
>
> C. That embodies the distinctive characteristics of a type, period or method of construction, or that represents the work of a master, or possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
>
> D. That has yielded, or may be likely to yield, information important to prehistory or history.

4.5.2.2 State Regulations

California Environmental Quality Act. A "historic resource" includes, but is not limited to, any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.[1] CEQA mandates that lead agencies consider a resource "historically significant" if it meets the criteria for listing in the California Register of Historic Resources (California Register). Such resources meet this requirement if they (1) are associated with events that have made a significant contribution to the broad patterns of California history, (2) are associated with the lives of important persons in the past, (3) embody distinctive characteristics of a type, period, region, or method of construction, and/or (4) represent the work of an important creative individual or possesses high artistic value.[2] These criteria mimic the criteria utilized to determine eligibility for the National Register.

In addition, *CEQA Guidelines* section 15064.5(f) recognizes that historical or unique archaeological resources other than potential Native American burials may be accidentally discovered during project construction. This guideline recommends that immediate evaluation defined by qualified archaeologists be included in mitigation measures. This guideline also recommends that if the find is determined to be a historical or unique archaeological resource, that contingency funding and time allotments sufficient to allow for implementation and avoidance measures be available.

Senate Bill 18. Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC."

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1 Public Resources Code, Section 5020.1(j).
2 Public Resources Code, Section 5024.1(c).

The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

California Health and Safety Code. The California Health and Safety Code §7050.5 states that if human remains are discovered on site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. This regulation is applicable to any project where ground disturbance would occur.

4.5.2.3 City of Perris General Plan Policies

The General Plan defines goals and policies related to cultural resources within the City of Perris. The specific policies related to cultural resources of the General Plan that are relevant to the proposed project are as follows:

Conservation Element

Policy IV.A Comply with State and Federal regulations and ensure preservation of the significant historical, archaeological, and paleontological resources.

Measure IV.A.1 For all private and public projects involving new construction, substantial grading, or demolition, including infrastructure and other public service facilities, staff shall require appropriate surveys and necessary site investigations in conjunction with the earliest environmental document prepared for a project.

Measure IV.A.2 For all projects subject to CEQA, applicants will be required to submit results of an archaeological records search request through the Eastern Information Center at the University of California, Riverside.

Measure IV.A.3 Require Phase I Surveys for all projects located in areas that have not previously been surveyed for archaeological or historic resources or which lie near areas where archaeological and/or historic sites have been recorded.

4.5.3 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the effects of the project on cultural resources are considered to be significant if the proposed project would:

- Cause a substantial adverse change in the significance of a historical resources as defined in §§ 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §§ 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Result in any disturbance of human remains, including those interred outside of formal cemeteries.

4.5.4 Less Than Significant Impacts

There are no impacts associated with cultural resources that were determined to be less than significant.

4.5.5 Significant Impacts

The following potential impacts were determined to have potentially significant impacts. In each of the following issues, mitigation measures have been recommended to reduce the significance of any impacts.

4.5.5.1 Human Remains

Impact 4.5.5.1: *The proposed project has the potential to impact previously undetected subsurface human remains.*

Threshold	Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

As previously stated, the Phase 1 site of the proposed project is currently utilized as a pre-cast concrete bridge fabrication operation while the Phase 2 and Phase 3 sites of the proposed project are currently vacant and historically utilized for agricultural production. No evidence exists that suggests the project site has been utilized in the past for human burials. In the unlikely event human remains are discovered during grading or construction activities, compliance with State law (Health and Safety Code §7050.5) is required. The requirements of State law have been set forth below as a mitigation measure to mitigate any discovery of unknown human remains.

Mitigation Measure. The following mitigation measure has been identified to reduce potential impacts to the inadvertent discovery of human remains:

4.5.5.1A In the event of the accidental discovery or recognition of any human remains on the project, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
  - If the coroner determines the remains to be Native American:
    - The coroner shall contact the NAHC within 24 hours.
    - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
    - The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
    - Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a

location not subject to further and future subsurface disturbance pursuant to Public Resources Code Section 5097.98(e).

- The NAHC is unable to identify a most likely descendent.
- The most likely descendant is identified by the NAHC, fails to make a recommendation within 48 hours of being granted access to the site; or
- The landowner or his authorized representative rejects the recommendation of the descendant, and a mediation by the NAHC fails to provide measures acceptable to the landowner.

Level of Significance After Mitigation. Adherence to **Mitigation Measure 4.5.5.1A** would mitigate any impacts attributable to the discovery of human remains to less then significant levels.

4.5.5.2 Historic or Prehistoric Cultural Resources

Impact 4.5.5.2: *The proposed project has the potential to impact previously undetected subsurface historic or prehistoric archaeological resources.*

Threshold	Would the proposed project cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to 15064.5?

As requested in the NOP response letters submitted by the Native American Heritage Commission, the Pechanga Band of Luiseno Indians, the Morongo Band of Mission Indians and the Soboba band of Luiseno Indians, Phase 1 Cultural Resource Assessments were conducted for all three phases of the project. These Cultural Resources Assessments followed the recommendations of the NAHC during their preparation to ensure proper analysis.

Phase 1: Airport Distribution Center. The Airport Distribution Center includes development of approximately 783,700 square feet of industrial warehouse space in one building on an approximately 38-acre site located west of Goetz Road between Mountain Avenue and Artlo Avenue. The Phase 1 site currently houses a pre-cast concrete bridge fabrication facility that includes three mobile office buildings, a materials storage shed and shop building, a concrete batch plant, a fabrication shop building, concrete dunnage and rebar storage areas, a compressor building, hazardous materials/waste storage area, six concrete stressing slabs, a quality control laboratory, concrete pavement and gravel areas, a vacant four-acre field, and a vacant ten-acre field. Currently, the on-site operations are conducted by Pomeroy Corporation, which has been at the project site since 1990.[1] The pre-cast concrete bridge fabrication facility originally was developed in 1985; therefore, it is reasonable to conclude that all the buildings located on the Phase 1 site were built in 1985 or later, and that said structures are not considered historically significant as they do not meet the 50-year-old criteria for historical structures.[2]

As identified in the City of Perris General Plan Conservation Element, “cultural sensitivity” applies to areas in the Perris Valley floor that exhibit “low” (one of less recorded site per square mile), “medium” (2-9 recorded sites per square mile or at historic road alignments per lineal mile), and “high” (10 or more sites recorded per quarter square mile) levels of cultural resources. The sensitive cultural zones are found in exposed bedrock, at the center of the City, and at historic road alignments. According to

[1] *Phase 1 Environmental Site Assessment Concrete Casting Operation,* Terracon, Inc., May 25, 2006.
[2] *Phase 1 Environmental Site Assessment Concrete Casting Operation,* Terracon, Inc., May 25, 2006.

Exhibit CN-6 of the Perris General Plan Conservation Element, the Phase 1 site of the proposed project is located in a low-density site probability for cultural resources.[1]

A review of the CHRIS, which includes the statewide Historical Resource Index (HRI), was conducted to identify whether any historic resources have been previously recorded within the project area or within a 1-mile radius. These files indicate that there are no recorded cultural resources within the project area. There are three historic resources and a district recorded within a ¼-mile radius of the project area.

There have been no cultural resource investigations conducted and no historic resources recorded within the project area. There are a total of 21 historic resources, one historic district, and two prehistoric sites within one mile of the project area. Most of the historic resources are historic structures located in the 1925 City of Perris, W. 4th Street Historic District and are not located within the project area and will not be impacted by the proposed project. Since there are no documented historic resources and the majority of the project area has been severely impacted by the Pomeroy Corporation industrial facility located at 2020 Goetz Road, it appears the project area has a low level of sensitivity for historic resources.

An intensive pedestrian survey of the northern portion of the project area was conducted using parallel 15 m wide east/west transects. The open grassy field offered good (80%) visibility. The area has been impacted by mechanical disking. There are two open trenches, which offered subsurface soil profiles. The native soils of the project area consist primarily of fine grain sandy loam. The southern portion of the project area was not surveyed since it is currently occupied by Pomeroy Corporation, and the area has been severely impacted, offering no ground surface visibility. Therefore, there is no ground surface integrity within the southern portion of the project area. No cultural resources were observed.

During the course of assessing the property for cultural resources, which included both a cultural resources records search and an intensive survey of the Phase 1 project area, no historic resources were identified.[2] Although the assessment did not identify any resources, there may remain potential buried resources. The construction of the proposed project would result in ground disturbance activities that may result in the discovery of buried or previously unidentified historical or archaeological resources. However, adherence to **Mitigation Measure 4.5.5.2A** would reduce impacts associated with this issue.

Phase 2: First Park South Perris Distribution Center. The First Park South Perris Distribution Center includes development of approximately 3,448,734 square feet of industrial warehouse space in four buildings on an approximately 201-gross-acre site located south of Mapes Street between "A" Street and Goetz Road. The Phase 2 project site currently is vacant but historically has been utilized for agricultural production. No structures or unique features currently are located within the project limits. An online title search was conducted, and historic maps were reviewed to determine the potential for former sites of historic buildings or other historic resources within the project.[3] No evidence of past structures or unique features was identified, and no evidence of such structures was identified during the on-site cultural resource survey. As no evidence has been identified to suggest the presence of past or current structures on site, potential impacts related to historic structures or features will not occur and mitigation is not needed.

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1 Exhibit CN-6: Cultural Resource Sensitivity, City of Perris General Plan Conservation Element, City of Perris, July 12, 2005.

2 Cultural Resources Assessment Phase I Archaeological Assessment of Proposed Airport Distribution Center, URS, January 29, 2009.

3 *Cultural Resources Assessment, Goetz Road Project,* LSA Associates, Inc. May 2009.

Data from the EIC indicated that seven cultural resources studies have been conducted within a one-mile radius of the Phase 2 project site; however, none of these is located within the project boundaries. Three archaeological resources and three built environment resources have been recorded within one mile of the project, the closest of which is located ¼ of a mile north of the Phase 2 site. As identified in the cultural resources assessment for the Phase 2 site, negative results of the records search and field survey indicate that the development of the Phase 2 site would not impact any known cultural resources. In addition, there is little potential for previously undocumented resources within the Phase 2 site boundaries. The updated records search conducted in May 2009 did not identify any additional studies or cultural resources within or adjacent to the Phase 2 project parcels. However, a linear historic resource (San Jacinto Valley Railroad Route, 33-15743) was documented approximately ⅔ of a mile northeast of the Phase 2 site.

As identified in the updated cultural resource assessment conducted for the Phase 2 site, a review of the General Land Office maps (1865, 1894), historic USGS quadrangle maps (1901, 1943, 1953, and 1967), and a land patent search indicate the project parcels were part of an area granted to the Southern Pacific Railroad in 1894 and that there were never any buildings or structures on the property. These maps indicate that the project area was vacant as late as the early 1940s.

The May 2009 field survey encountered greatly reduced (poor) ground visibility in the project area due to the presence of unharvested grain and hare oats (over a foot tall in some areas), which almost completely obscured the surface of the Phase 2 site (less than 10% visibility). The ground surface was more accessible in the linear disked areas, with visibility approximately 65 percent. No significant difference in visibility over the balance of the project area was observed, including the random 5-acre areas surveyed. Traces of modern refuse and fragmentary structural debris (e.g., concrete and blacktop fragments), along with some sheep and cow bones, were observed, indicating use of the land for sheep and cattle pasturage. The project area has been severely disturbed by decades of agricultural activities and lightly impacted by roadside debris and dumping. However, no cultural resources were identified during the follow-up field survey. Although no historic or archaeological resources were identified during the survey, previously unidentified historic resources potentially may be encountered during project construction. Therefore, mitigation is required.

Development of Phase 2 may also include the extension of the existing rail line to the west of the project to provide rail service to the site. The extension of the existing rail line would result in ground disturbance activities which may result in the discovery of buried or previously unidentified historical or archaeological resources. However, adherence to **Mitigation Measure 4.5.5.2A** would reduce impacts associated with this issue.

Phase 3: First Park South 215 Distribution Center. The First Park South 215 Distribution Center includes development of approximately 3,166,857 square feet of industrial warehouse space in four buildings on an approximately 215.7-acre site. The Phase 3 site is located adjacent to the Perris Valley Storm Drain Channel and San Jacinto River at the northeast corner of Redlands Avenue and Ellis Avenue. The Phase 3 site historically has been utilized for agricultural production. During the cultural resources assessment, a concrete structural foundation was observed on site.[1] The structural foundation does not appear on the 1967 aerial photograph but is present on the 1976 aerial photograph. Therefore, the structural foundation is not considered historically significant as it is no more than 40 years old. In addition to the concrete structural foundation, a corral structure was observed on site. The corral does not appear in aerial photographs until 1980. As the corral structure is approximately 32 years old, the corral does not meet the 50-year-old criterion for a historical structure.

[1] *Cultural Resources Assessment, Phase 1 Archaeological Assessment of First Park South 215,* URS, July 15, 2008.

As part of the review of potential impacts the proposed project may have on archaeological resources, a records search at the EIC was conducted. The CHRIS cultural resource maps at the EIC were checked for possible prehistoric and historic resources previously recorded within one mile of the project area.[1] Data from the EIC indicate that 17 cultural resource studies have been conducted within one mile of the project. These studies indicate that 53 recorded historic properties, one historic district, and three isolates are located within a one-mile radius of the Phase 3 site.

Of these 17 cultural resource studies, two previous cultural resource assessments have been conducted within the project limits. One cultural resource survey covering 640 acres and encompassing Phase 3 site was conducted in 1988. In 1994, another cultural resource survey of the easternmost 75 acres of the Phase 3 site was conducted. These cultural resource surveys recorded one historic feature on the project site consisting of a low-density scatter of historic glass and ceramic fragments (CA-RIV-706H).[2] To supplement the CHRIS data, a review was conducted of the National Register Index, Office of Historic Preservation Directory of Properties, and historic USGS topographic maps. The NAHC conducted a Sacred Lands File (SLF) search for the presence of Native American resources in the project vicinity, which reported that the search of the SLF failed to identify any known Native American resources in the immediate project area.

A pedestrian reconnaissance survey of the project site was conducted in August 2007. The cultural resource assessment conducted in August 2007 concluded that the previously identified cultural resource site (CA-RIV-706H) containing the low density glass and ceramic scatter was no longer present as the project site had been heavily plowed and the soil turned over extensively since the 1993 cultural resource assessment. The August 2007 cultural resource assessment also concluded that the results of the intensive pedestrian survey of the Phase 3 site were negative for cultural resources. Given the lack of newly identified significant historic resources and the inability to relocate the previously identified site within the project area, the development of the Phase 3 site would not result in significant impacts to cultural resources. Although no historic resources were identified during the survey, there is the potential that previously unidentified historic resources may be encountered during project construction, so mitigation is required.

All Phases and Infrastructure. The total project area includes the three development sites plus the area incorporating the proposed infrastructure improvements. As indicated in the previous analysis, the three phases would not result in significant impacts to a historical or archaeological resource with implementation of the identified mitigation measures. In addition to the development of these three sites with warehouse distribution uses, the proposed project would also construct improvements to Goetz Road, Ellis Avenue, Mountain Avenue, "A" Street, Mapes Road, and Case Road. The improvements to these roadways would be required to adhere to **Mitigation Measure 4.5.5.2A** which would reduce impacts associated with this issue to a less than significant level. Similarly, the proposed project would also install associated water, recycled water, drainage, brine line, and sewer infrastructure for the three sites. These infrastructure improvements would have ground-disturbing activities that may result in the discovery of buried or previously unidentified historical or archaeological resources. However, adherence to **Mitigation Measure 4.5.5.2A** would reduce impacts associated with this issue.

Mitigation Measure. The following measure has been identified to reduce potential impacts to prehistoric and historic cultural resources:

4.5.5.2A Prior to grading of the project site, the project developer shall hire a qualified archaeologist to provide cultural resource monitoring services at the project site. Selection of the archaeologist shall be subject to the approval of the City of Perris

[1] *Cultural Resources Assessment, Phase 1 Archaeological Assessment of First Park South 215*, URS, July 15, 2008.
[2] *Cultural Resources Assessment, Phase 1 Archaeological Assessment of First Park South 215,* URS, July 15, 2008.

Planning Manager and no grading activities shall occur at the site until the archaeologist has been approved by the City. During grading activities, the archaeologist shall monitor earth moving activities at the project sites consistent with Public Resources Code Section 21083.2(b), (c), and (d). The archaeologist shall be equipped to record and salvage cultural resources that may be unearthed during grading activities. The archaeologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. If the archaeologist identifies resources of a prehistoric or Native American origin, a Native American observer shall be added to the monitoring program and accompany the archaeologist for the duration of the grading phase. Any Native American resources shall be evaluated in accordance with the CEQA Guidelines and either reburied at the project sites or curated at an accredited facility approved by the City of Perris. Once grading activities have ceased or the archaeologist determines that monitoring is no longer necessary, monitoring activities can be discontinued.

Level of Significance After Mitigation. Adherence to **Mitigation Measure 4.5.5.2A** would reduce potential impacts to historic or prehistoric cultural resources to a less than significant level.

4.5.5.3 Paleontological Resources

Impact 4.5.5.3: *The proposed project has the potential to impact previously undetected subsurface paleontological resources.*

Threshold	Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Phase 1: Airport Distribution Center. As previously stated, of the 38 acres, 24 acres of the Phase 1 site currently are developed with a pre-cast concrete bridge fabrication facility. The remaining portion of the Phase 1 site (14 acres) consists of vacant fields. As these fields are not developed, these fields have the potential to contain previously unidentified paleontological resources. According to the Perris General Plan Conservation Element, "paleontological sensitivity" is defined by areas in the Perris Valley floor that exhibit high, low to high, and low level of potential to contain fossil resources. According to Exhibit CN-7 of the Perris General Plan Conservation Element, the project site is located in Area #5 for paleontological sensitivity.[1] Area #5 contains young Quaternary alluvium (which has low potential to contain significant fossil resources) overlying older Pleistocene valley deposits, which have a high sensitivity for paleontological resources. Once excavation in this area reaches five feet below the modern ground surface, the potential for impacts to fossil resources increases to high.

A paleontological review was conducted for the Phase 2 site by URS within 0.6 mile of the project area with the San Bernardino County Museum for the 215 Acres of Agricultural Land, Perris, CA – Phase I ESA on May 2, 2007. According to the San Bernardino County Museum and the preliminary digital geological map of the Santa Ana 30' × 60' Quadrangle, Southern California, the sedimentary deposits in the vicinity of the project area are considered very old alluvial fan deposits consisting of middle to early Pleistocene (1.8 million years ago (mya) to 0.13 mya). Northwest of the project area, surface deposits are identified as very old alluvial fan deposits consisting of middle to early Pleistocene. East of the project area are wash deposits and alluvial valley deposits of Holocene age (less than 10,000 years). To the far east, well outside of the project area, are found bedrock deposits of the Val Verde tonalite from the Peninsular Ranges, Batholith and quartz-rich prebatholithic metasedimentary rocks from the Mesozoic age (approximately 95 million years or older) (AEC 2007).

[1] Exhibit CN-7: Paleontological Sensitivity, City of Perris General Plan Conservation Element, City of Perris, July 12, 2005.