

Volume 1

# Supplemental Environmental Impact Report

(State Clearinghouse No. 2007061031)

City of Vernon  
Focused General Plan and Zoning Ordinance Update

December 2014

*Lead Agency:*  
City of Vernon  
4305 Santa Fe Avenue  
Vernon, CA 90058



City of Vernon  
General Plan and  
Zoning Ordinance Update  
Draft Supplemental Environmental Impact Report

SCH 2007061031  
December 2014

City of Vernon

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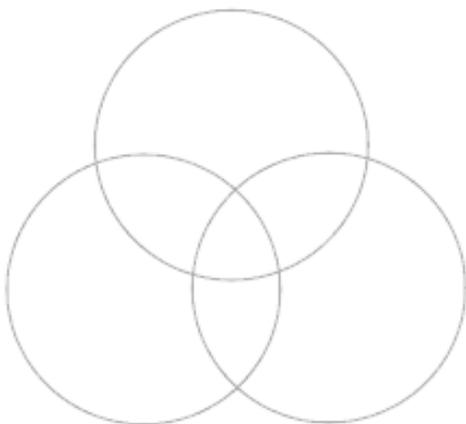
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## Introduction 1.0

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This Supplemental Environmental Impact Report (Supplemental EIR) evaluates the environmental effects associated with the adoption and implementation of the focused General Plan and Zoning Ordinance update. The City completed and certified a Program EIR which analyzed a comprehensive General Plan update and revised Zoning Ordinance. The adoption and implementation of a General Plan update and Zoning Ordinance revision constitute a “project” for the purposes of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. Thus, this Supplemental EIR has been prepared to address the impacts associated with this project and in relation to the certified EIR.

### ***Legal Requirements***

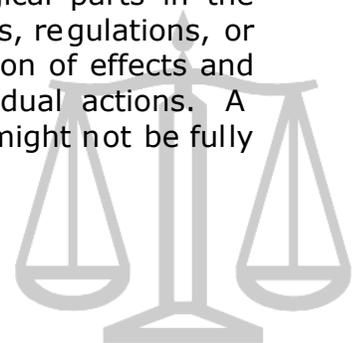
This Supplemental EIR has been prepared in accordance with the California Environmental Quality Act of 1970 (Public Resources Code, Section 21000 et seq.), the Guidelines for Implementation of CEQA published by the Resources Agency of the State of California (California Code of Regulations, Section 15000 et seq.), and the City of Vernon’s Local Guidelines for Implementing the California Environmental Quality Act.

The report was prepared by professional environmental consultants under contract to the City of Vernon. The City of Vernon is the lead agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067, as amended). The content of this document reflects the independent judgment of the City.

### ***Purpose of the Program EIR***

The certified Program EIR was intended to provide information to public agencies, the general public, and decision makers regarding potential environmental impacts related to the adoption and long-term implementation of the updated Vernon General Plan and revised Zoning Ordinance. The purpose of an EIR, under the provisions of CEQA, is “to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.” (Public Resources Code Section 21002.1[a])

The certified EIR was a Program EIR under the provisions of Section 15168 of the State CEQA Guidelines. According to Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project, are related geographically, and represent logical parts in the chain of contemplated actions in connection with issuance of rules, regulations, or plans. The Program EIR allows for a more exhaustive consideration of effects and alternatives than would be practical in EIRs on separate individual actions. A Program EIR allows for consideration of cumulative impacts that might not be fully considered on a case-by-case basis.



The certified Program EIR provides a first-tier analysis of the environmental effects of the Vernon General Plan update and revised Zoning Ordinance. Section 15152 of the CEQA Guidelines indicates that tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site specific EIR or negative declaration. Subsequent activities pursuant to the updated Vernon General Plan and revised Zoning Ordinance must be examined in light of the certified Program EIR to determine whether an additional environmental document must be prepared. If a subsequent project or later activity would have effects that were not examined in the certified Program EIR, or not examined at an appropriate level of detail to be used for the later activity, an initial study would need to be prepared, leading to a negative declaration or an EIR. If the City finds that pursuant to Section 15152 of the CEQA Guidelines, no new effects could occur or no new mitigation measures would be required on a subsequent project, the City can approve the activity as being within the scope of the project covered by the certified Program EIR, and no new environmental documentation would be required.

### ***Purpose of the Supplemental EIR***

CEQA authorizes a Lead or Responsible Agency to prepare a Supplement to a previously certified EIR if some changes or additions are necessary to a previously analyzed project and the conditions described in CEQA Guidelines §15163 are met.

Pursuant to Section 15162 of the CEQA Guidelines, a Subsequent EIR or Negative Declaration may only be prepared if:

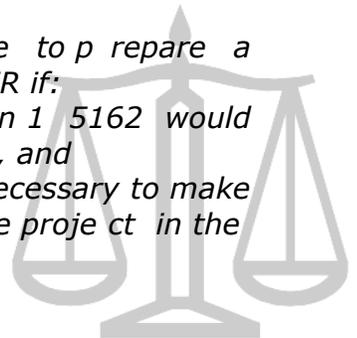
- (a) *When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*
  - (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*
  - (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
  - (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:*



- (A) *The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*
  - (B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
  - (C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
  - (D) *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*
- (b) *If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.*
- (c) *Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.*
- (d) *A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.*

Pursuant to CEQA Guidelines Section 15163:

- (a) *The Lead or Responsible Agency may choose to prepare a Supplement to an EIR rather than a Subsequent EIR if:*
  - (1) *any of the conditions described in Section 15162 would require the preparation of a Subsequent EIR, and*
  - (2) *only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.*



- (b) *The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.*
- (c) *A supplement to an EIR shall be given the same kind of notice and public review as is given the draft EIR under Section 15087.*
- (d) *A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.*
- (e) *When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.*

Therefore, in accordance with CEQA Guidelines Section 15163, the City, as the Lead Agency, has prepared this Supplement to the previously certified General Plan and Zoning Ordinance Update Program Environmental Impact Report. This EIR serves as an information document for use by public agencies, the general public, and decision makers. This EIR is not a City of Vernon policy document. It does, however, discuss the impacts of development pursuant to the updated General Plan and revised Zoning Ordinance, and analyzes project alternatives. This Program EIR will be used by the City of Vernon City Council in assessing impacts prior to adoption of the updated General Plan and revised Zoning Ordinance.

### ***Responses to Notice of Preparation***

To define the scope of the investigation of the certified Program EIR, the City of Vernon distributed a Notice of Preparation (NOP) to city, county, and state agencies; other public agencies; and interested private organizations and individuals. The purpose of the NOP was to identify agency and public concerns regarding potential impacts of the proposed project. Comment letters on the certified Program EIR were received from the following:

- San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy
- Public Utilities Commission
- Native American Heritage Commission
- South Coast Air Quality Management District
- California Department of Transportation, District 7
- Southern California Association of Governments

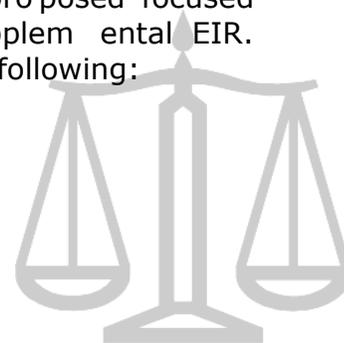
The comments were addressed in the certified Program EIR as follows:

| <b>Commenting Agency/Person</b>  | <b>Comment</b>  | <b>Addressed in EIR</b>  |
|--|---|--|
| San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy (RMC) | The RMC encourages open space/joint uses along the Los Angeles River corridor for protection of this watershed asset. The RMC welcomes the opportunity to review the project. | Page 20 of the Initial Study (Appendix A) addresses watershed and water quality issues. The analysis concludes that impact will be less than significant with continued implementation of National |

| Commenting Agency/Person                                       | Comment  | Addressed in EIR  |
|--|--|---|
|  |  | Pollution Discharge Elimination System (NPDES) requirements. The open space comment is not relevant to the EIR.   |
| Public Utilities Commission                                    | The General Plan update should include language to address rail safety, particularly with regard to at-grade rail/roadway crossings. | This comment does not raise an environmental concern nor ask that the EIR address a particular issue. The updated General Plan Circulation Element addresses rail safety issues on pages 4 to 5 and 23 to 25.   |
| Native American Heritage Commission                            | The letter outlines the requirements set forth by state law for mitigating any impacts on cultural resources.                        | Page 16 of the Initial Study (Appendix A) addresses cultural resource issues. The analysis concludes that impact will be less than significant with continued compliance with state law on a project-by-project basis.  |
| South Coast Air Quality Management District (SCAQMD)           | The letter sets forth SCAQMD's standards for the conduct of air quality analyses in EIRs.  | Section 4.1 of the EIR addresses air quality impacts.   |
| California Department of Transportation (Caltrans), District 7 | The letter indicates that a traffic study is required to address the General Plan update at build out.                               | Section 4.4 of the EIR summarizes the results of the traffic study (Appendix D) prepared for the project.   |
| Southern California Association of Governments (SCAG)          | The EIR should examine how the project relates to SCAG's <i>Regional Comprehensive Plan and Guide</i> .                              | Land use and housing policy issues are examined on pages 21 and 23, respectively, of the Initial Study (Appendix A). The analysis concludes that the General Plan update continues long-established policy for Vernon to remain as an exclusively industrial city. Also, the Housing Element indicates that no new housing will be permitted, which implements SCAG Regional Housing Needs Allocation policies. |

The City of Vernon distributed an NOP to city, county, and state agencies; other public agencies; and interested private organizations and individuals to identify agency and public concerns regarding potential impacts of the proposed focused General Plan and Zoning Ordinance update analyzed in this Supplemental EIR. Comment letters on the Supplemental EIR were received from the following:

- Public Utilities Commission
- Native American Heritage Commission
- South Coast Air Quality Management District
- California Department of Transportation, District 7



Copies of written comments received during the 30-day public review period for the NOP are included in Appendix A of this EIR. On September 26, 2012, the City conducted a scoping meeting to solicit oral comments on the NOP. Copies of the notes from that meeting are also included in Appendix A. No comments were raised at the scoping meeting regarding the EIR. The written comments are addressed in this Supplemental EIR as follows:

| <b>Commenting Agency/Person</b>                                | <b>Comment</b>   | <b>Addressed in EIR</b>   |
|--|--|---|
| Public Utilities Commission                                    | The General Plan update should include language to address rail safety, particularly with regard to at-grade rail/roadway crossings. | This comment does not raise an environmental concern nor ask that the EIR address a particular issue. The current General Plan Circulation Element addresses rail safety issues on pages 4 to 5 and 23 to 25.                 |
| Native American Heritage Commission                            | The letter outlines the requirements set forth by state law for mitigating any impacts on cultural resources.                        | Pages 29 to 30 of the Initial Study (Appendix A) addresses cultural resource issues. The analysis concludes that impact will be less than significant with continued compliance with state law on a project-by-project basis. |
| South Coast Air Quality Management District (SCAQMD)           | The letter sets forth SCAQMD's standards for the conduct of air quality analyses in EIRs.  | Section 4.1 of the EIR addresses air quality impacts.   |
| California Department of Transportation (Caltrans), District 7 | The letter indicates that a traffic study is required to address the General Plan update at build out.                               | Section 4.4 of the EIR summarizes the results of the traffic study (Appendix C) prepared for the project.   |

### ***Availability of Draft Supplemental EIR***

This Draft Supplemental EIR is available for public inspection at the City of Vernon Community Services Department, 4305 South Santa Fe Avenue, Vernon. Documents may be reviewed during regular business hours, Monday through Thursday, 7:00 A. M. to 5:30 P.M. This Draft Supplemental EIR will also be available on the City of Vernon website ([www.cityofvernon.org](http://www.cityofvernon.org)).



## ***Comments Requested***

Comments of all agencies and individuals are invited regarding the information contained in the Draft Supplemental EIR. Where possible, those responding should endeavor to provide information they feel is lacking in the Draft Supplemental EIR, or should indicate where the information may be found. All comments on the Draft Supplemental EIR should be sent to the following City of Vernon contact:

Kevin Wilson, Director of Community Services and Water  
City of Vernon, Community Services Department  
4305 South Santa Fe Avenue  
Vernon, CA 90058  
(323) 583-8811  
kwilson@ci.vernon.ca.us

Following a 45-day period of circulation and review of the Draft Supplemental EIR, all comments and the City's responses to the comments will be incorporated into a Final Supplemental EIR prior to certification of the document by the City of Vernon.

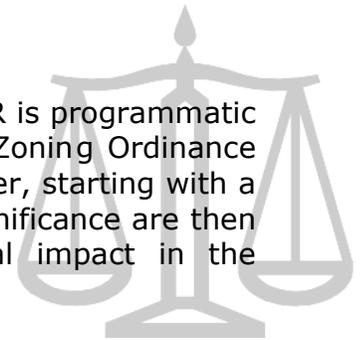
## ***Organization of this EIR***

This EIR is organized into nine sections. Section 1.0 is this Introduction. The Executive Summary, provided in Section 2.0 includes a brief project description and summarizes project impacts and mitigation measures. Section 3.0 provides a detailed description of the proposed focused General Plan and Zoning Ordinance update. Section 4.0 analyzes project impacts and identifies mitigation measures designed to reduce significant impacts. Section 5.0 provides analysis of alternatives to the proposed project. An analysis of cumulative impacts, growth-inducing impacts, energy conservation, and significant irreversible environmental impacts are analyzed in Section 6.0. Effects found not to be significant are provided in Section 7.0. Section 8.0 lists the preparation team and Section 9.0 provides a list of persons and organizations consulted during the preparation of this Supplemental EIR.

The Appendices consist of Appendix A: Notice of Preparation/Initial Study, Appendix B: Air Quality Data, and Appendix C: Traffic Impact Analysis, included as supporting information to the EIR. In compliance with Public Resources Section 21081.6, a mitigation monitoring and reporting program will be prepared as a separately bound document that will be adopted in conjunction with the certification of the Final EIR and project approval.

## ***Approach to EIR Analysis***

As stated above, the approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the General Plan update and Zoning Ordinance revision. Each environmental issue is analyzed in the same manner, starting with a discussion of the existing environmental setting. Thresholds of significance are then defined, as they are used to measure the project's potential impact in the



environmental impact section. The analysis section summarizes the environmental effects over time resulting from implementation of the goals and policies contained in each of the updated General Plan elements as analyzed in the certified Program EIR. The analysis section then examines the environmental effects over time resulting from the implementation of the proposed expanded Commercial Overlay C-1 and C-2 zones and the proposed Truck and Freight Terminal Overlay Zone. If the analysis indicates that implementation of the proposed Overlay Zones will result in a significant impact not identified in the certified Program EIR for a particular environmental issue, mitigation measures are included.

For the General Plan update analyzed in the certified Program EIR, most of the mitigation measures were drawn from the updated General Plan Implementation Plan. As part of the certified General Plan update, the City prepared a detailed Implementation Plan that outlines procedures, programs, or approaches the City will pursue over time – either alone or in collaboration with non-City organizations or state and federal agencies – to implement the updated General Plan goals and policies. Some of the implementation measures are processes or procedures the City currently performs on a day-to-day basis (such as development project review), while others identify new programs or projects that will be implemented within specified time frames. By identifying a responsible party, a timeline for implementation, and a monitoring frequency, the Implementation Plan provides a mechanism for ensuring that potential impacts resulting from long-term implementation of the General Plan update and Zoning Ordinance revision were avoided or reduced.

Not all implementation measures were included in the certified Program EIR as mitigation measures. The EIR identified only those required to avoid or reduce significant impacts. Mitigation measures and the Implementation Plan included as part of the certified Program EIR are applicable to the proposed focused General Plan and Zoning Ordinance update analyzed in this Supplemental EIR.

For each environmental issue area examined in Section 4.0, the discussion concludes with a statement regarding the level of impact remaining with imposition of the mitigation measures.



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| 2 | Executive Summary |
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## Project Summary 2.1

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The project analyzed in this SEIR is the adoption and implementation of the focused General Plan and Zoning Ordinance update.

The proposed project is a focused update to the General Plan to comply with new State laws and make minor adjustments to land use policy.

The Plan as a whole applies to the incorporated limits of Vernon.

### **Focused General Plan and Zoning Ordinance Update**

The intent of the project with respect to each of the elements is summarized below.

#### ***Update to General Plan Elements***

##### Land Use Element

The City of Vernon is an exclusively industrial city with one land use category, Industrial, and three overlay districts: Commercial, Rendering, and Slaughtering. The project proposes to expand the area that the Commercial Overlay applies and proposes new information and policies to facilitate more intensive employment-generating uses near transit stops. In addition, additional information on flood hazards is provided to comply with State law (AB 162).

##### Safety Element

Recent revisions to AB 162 requiring flood risk management information to be included in the Safety Element are proposed. Revisions to earthquake fault maps to update information provided by the California Geological Survey are proposed.

##### Resources Element

Limited changes to the Resources Element related to recently updated Urban Water Management Plan (UWMP) information are proposed. In addition, the project proposes revisions to address AB 32, the Global Warming Solutions Act of 2006 and SB 375.

##### Noise Element

Limited changes to the Noise Element to reflect the City's recently adopted housing policy is proposed.

##### Implementation Plan

In order to correlate with new policies in the General Plan, a limited number of new actions to the Implementation Plan are proposed. In addition, due to the loss of redevelopment funding in the in State, changes to funding sources are proposed.

## **Project Location 2.2**

The City of Vernon is located in the central portion of Los Angeles County, directly south of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, Bell, and Commerce. The municipal limits of the City of Vernon encompass approximately 5.2 square miles, extending generally from Alameda Street and the Alameda Corridor on the west to Interstate 710 (I-710) on the east, and the cities of Maywood and Huntington Park to the south to the City of Los Angeles to the north. Lands within the municipal limits largely have been developed with industrial uses since its incorporation in 1905.

## **Environmental Setting 2.3**

The Project Area is located in central Los Angeles County. The topography is relatively flat and is largely built out with almost exclusively industrial use, with limited retail, commercial, and food service options to support the large day-time business population and few residents.

## **Environmental Impacts 2.4**

Based on the preliminary environmental analysis conducted, the City determined that the adoption and long-term implementation of the updated General Plan and revised Zoning Ordinance has the potential to result in significant environmental effects with regard to the following environmental issue areas:

- Air Quality
- Hazards and Hazardous Materials
- Noise
- Transportation and Traffic
- Utilities and Service Systems (water supply and solid waste)

This Supplemental EIR examines each of these issue areas in separate sections, in addition to other required topics specified in the State CEQA Guidelines. Table 2.0-2 summarizes the environmental impacts associated with the project and lists the mitigation measures required to reduce or avoid impacts as stated in the certified General Plan EIR and remain applicable to the proposed General Plan update. Mitigation beyond that required by the certified General Plan EIR is not necessary.

**Table 2.0-2  
Environmental Impact Summary  
Impact Summary**

(The numbers in the first column refer to the EIR sections where specific impact topics are addressed. The letters refer to the thresholds identified in Appendix G of the CEQA Guidelines.)

**Significant and Unavoidable Impacts**

*Transportation and Traffic*

|  |   |
|--|---|
| <p>4.4.A<br/>4.4.B</p>   | <p>Projected long-term traffic volumes result in significant and unavoidable impacts to the local and regional (Congestion Management Program) circulation system with incorporation of mitigation.</p> |
| <p><u>Mitigation Measures</u></p>  |   |
| <p><b>T-1 Automated Traffic Surveillance and Control System (ATSAC).</b> Conduct a study to determine if ATSAC would be a beneficial and cost-effective system for the City to operate and maintain.</p>   |   |
| <p><b>T-2 Coordinate with Adjacent Jurisdictions.</b> Continue to coordinate intersection maintenance and improvements with adjacent jurisdictions so that intersections along Soto Street, Pacific Boulevard, Slauson Avenue, Alameda Street, Atlantic Boulevard, Bandini Boulevard, and Downey Road operate at an acceptable Level of Service.</p>   |   |
| <p><b>T-3 Coordinate with Rail Companies.</b> Coordinate with railroad companies in removing obsolete rail spurs. Work to minimize traffic impacts to City streets from trucks using Hobart Yard facilities and other multi-modal transportation yards.</p>  |   |
| <p><b>T-4 Coordinate with Metropolitan Transportation Authority.</b> Work with the Metropolitan Transportation Authority (Metro) to achieve the following:</p> <ul style="list-style-type: none"> <li>- Implement the Metro’s Congestion Management Plan (CMP) within the City.</li> <li>- Continue to provide local and regional connections through Metro local and rapid bus lines.</li> <li>- Improve access to local Metro stations.</li> </ul> |   |
| <p><b>T-5 Minimize Parking Impacts.</b> Work with businesses to develop creative strategies and solutions to address parking shortages. Require new development projects to meet the minimum parking standards in the Zoning Ordinance for both trucks and automobile and automobiles, including truck trailer storage, employee parking, and visitor parking.</p>   |   |

- T-6 Soto Street Widening.** At the time properties along Soto Street are redeveloped or as otherwise dictated by City plans for the widening of Soto Street, require the dedication of rights-of-way to achieve the road standard for Soto Street established in the Circulation and Infrastructure Element. Complete the road widening project at the time adequate rights-of-way have been acquired and/or dedicated.
  
- T-7 Interstate 710 Freeway Improvements.** Work with Caltrans on all plans, activities, and projects regarding Interstate 710 that may directly impact Vernon’s roadway facilities and traffic patterns. Coordinate with the Gateway Cities Council of Governments and Southern California Association of Governments on studies and programs regarding the improvements to the I-710 freeway.
  
- T-8 Other Improvements.** At Santa Fe Avenue and 38<sup>th</sup> Street, stripe an eastbound left-turn lane within existing right-of-way to provide additional intersection capacity.

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**Less than Significant Impacts with Mitigation Incorporation**

*Hazards and Hazardous Materials*

4.2.A  
4.2.B  
4.2.C

Implementation of the proposed focused General Plan and Zoning Ordinance Update will result in less than significant impacts from the use, transport, and disposal of hazardous materials and wastes with mitigation incorporation.

Mitigation Measures

- H-1** The City will continue to implement the provisions of City ordinances to provide for the business occupancy inspection program and the regular inspection of businesses involved in the production, storage, handling, disposal, treatment, emissions, discharge, or recycling of hazardous materials. Such activity will be funded as part of the City’s annual budgeting process, special tax, and/or will be funded as a fee program.
  
- H-2** At the time any new or revised Hazardous Materials Business application for a new business or activity is received for a location within one-quarter mile of any residence, school, hospital, residential assisted care facility, or similar use (sensitive uses may be located within the City or outside its boundaries), or greater distance as may be determined by the Director of Environmental Health Department for particular business types, the City will review the application and determine whether a Health Risk Assessment (HRA) is required pursuant to State law and/or City Ordinance 961 to address any potential impacts to these uses. If an HRA is deemed appropriate and further, if the

|  |   |
|--|---|
|  | <p>HRA identifies potential risks associated with the business activity relative to proximity to the residence, school, hospital, residential assisted care facility or similar use, the City shall ensure that action is taken to address such risk. The action may consist of:</p> <ul style="list-style-type: none"> <li>- Denying the application within the limits of the Code of the City of Vernon, or</li> <li>- Requiring the business operator to incorporate preventative or ameliorative measures into the business processes or activities to lower the risk to acceptable levels, as set forth by federal or state regulations and policies.</li> </ul> |
|--|---|

*Noise*

|              |   |
|--------------|---|
| <p>4.3.A</p> | <p>Impacts will be less than significant at the program level with implementation of mitigation, General Plan policies, and regulatory requirements.</p> <p><u>Mitigation Measures</u></p> <p><b>N-1 Noise Regulations.</b> Continue to enforce City noise regulations contained in the Zoning Ordinance to protect residents and school children from excessive noise levels associated with stationary noise sources. Periodically evaluate regulations for adequacy and revise, as needed, to address community needs and changes in legislation and technology.</p> <p><b>N-2 Siting of New Businesses and Activities near Sensitive Land Uses.</b> Review all development proposals and building permits within the City to determine whether the proposed use has the potential to exceed City one-hour noise standards. The City's standards are lower at locations near existing residences and schools. As appropriate, require acoustical analyses for all such development and activities near such uses, and determine if mitigation measures are required. Require property and business owners to implement mitigation to achieve City noise standards.</p> |
|--------------|---|

**No Impact and Less than Significant Impacts**

*Air Quality and Climate Change*

|                                  |  |
|----------------------------------|--|
| <p>4.1.A<br/>4.1.B<br/>4.1.C</p> | <p>Impacts related to short-term and long-term criteria pollutant emissions at the programmatic level will be less than significant with implementation of existing General Plan policy, and existing standards.</p> |
| <p>4.1.D</p>                     | <p>Impacts related to the exposure of sensitive receptors to substantial pollutant concentrations and greenhouse gases will be less than significant at the programmatic level.</p>                                  |

*Hazards and Hazardous Materials*

|              |  |
|--------------|--|
| <p>4.8.D</p> | <p>Impacts to development and persons due to building siting on contaminated properties will be less than significant.</p> |
|--------------|--|

*2.0 Executive Summary*

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*Utilities and Service Systems*

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|       |  |
|-------|--|
| 4.5.A | Implementation of the proposed project will not require new or expanded water supply entitlements to be secured. |
| 4.5.B | Impacts associated with solid waste regulations and adequacy of disposal sites will be less than significant.    |

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## 2.5 Issues to be Resolved

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Pursuant to Section 15123(b)(3) of the CEQA Guidelines, an EIR summary must identify "Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." This EIR identifies and resolves issues related to project alternatives in Section 5. Potentially significant impacts are identified in the analysis provided in Section 4 and mitigation is considered for all impacts.

## 2.6 Areas of Potential Controversy

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A Notice of Preparation (NOP) of a Draft Supplemental Environmental Impact Report was circulated for a 30-day public review period from September 13, 2012 through October 15, 2012. Responses to the circulation of the NOP identified a variety of environmental concerns related to air quality, transportation, and rail safety (see Appendix A). These areas of potential controversy are examined in this EIR.

## 2.7 Alternatives to the Proposed Project

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CEQA requires that an EIR examine alternatives to the project that are capable of reducing or eliminating the unavoidable significant effects. Four alternatives were considered. The alternatives examined in Section 5.0 are:

- Alternative 1: No Project
- Alternative 2: Additional Railway/Roadway Grade Separations
- Alternative 3: Zoning Provisions to Permit Warehousing Citywide
- Alternative 4: No Truck and Freight Terminal Overlay

Alternative 3 was examined as part of the certified General Plan EIR; however it is no longer applicable, and has not been examined further.

The alternatives analysis indicates that Alternative 1 will result in equivalent impacts when compared to the proposed project, Alternative 2 will generally result in reduced impacts related to air quality, hazards, and traffic and equivalent impacts related to water supply, landfill capacity, and noise when compared to the proposed project. Alternative 4 will result in generally reduced impacts related to air quality, traffic, water supply, landfill capacity, and noise and equivalent impacts related to hazards when compared to the proposed project. Alternative 1 was found to be the environmentally superior alternative to the proposed project.

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| 3 | Project Description |
|---|---------------------|

## Project Description 3.0

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### ***Project Title***

City of Vernon Focused General Plan and Zoning Ordinance Update

### ***Lead Agency Name and Address***

City of Vernon  
4305 Santa Fe Avenue  
Vernon, California 90058

### ***Contact Person and Phone Number***

S. Kevin Wilson, Director of Community Services and Water  
(323) 583-8811

### ***Project Location***

The project applies to all parcels within the City of Vernon and the City's unincorporated sphere of influence. Vernon is located in the central portion of Los Angeles County, directly south of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. The City's planning area encompasses approximately 5.2 square miles. Exhibit 1 (Regional Context and Vicinity Map) illustrates Vernon's location within Los Angeles County and its local context.

### ***Project Sponsor's Name and Address***

City of Vernon  
4305 Santa Fe Avenue  
Vernon, California 90058

### ***General Plan Land Use Designation***

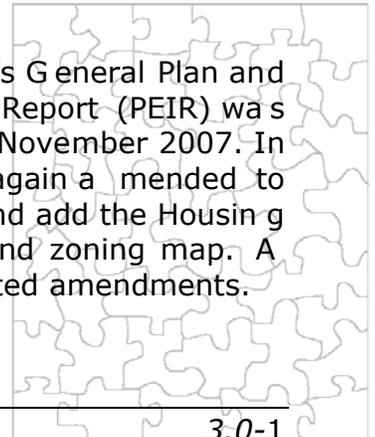
Industrial with various overlays

### ***Zoning District***

Industrial with various overlays

### ***Project Background***

The City of Vernon adopted a comprehensive update to the City's General Plan and Zoning Ordinance in 2007. A Program Environmental Impact Report (PEIR) was prepared at the time and certified by the Vernon City Council in November 2007. In January 2013, the General Plan and Zoning Ordinance were again amended to update the City's Housing Element for the 2014-2021 period and add the Housing and Emergency Shelter Overlays to the land use policy map and zoning map. A Mitigated Negative Declaration was adopted for the housing-related amendments.



### 3.0 Project Description

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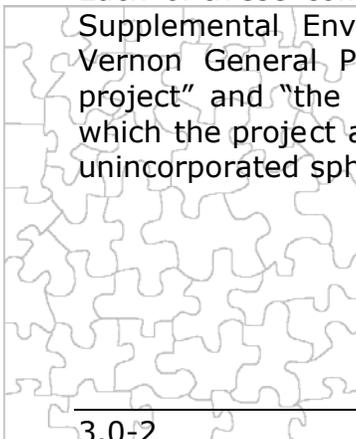
The entirety of the 2,755-acre Planning Area is designated and zoned Industrial (I). Variations in land uses are supported through a series of overlays. Currently, the General Plan and Zoning Code identifies five overlay districts. The Commercial Overlay District (C) encompasses 210 acres and supports retail, commercial service, and restaurant uses. The Rendering Overlay District (R) encompasses 134 acres and supports rendering (the processing of animal products into useful, value-added materials) on lots over one acre in size. The Slaughtering Overlay District (S) encompasses 69 acres and supports the slaughtering of animals on lots over one acre in size. The Housing Overlay District (H) supports development of residential units on approximately two acres in the eastern portion of the Planning Area. The Emergency Shelter Overlay District (ES) supports development of emergency shelters on approximately 1.61 acres in the northwest portion of the Planning Area.

#### ***Project Description***

The proposed project is a focused update to the General Plan to comply with new State laws and make minor adjustments to land use policy. The project consists of several components:

- Update the Land Use Element to expand the locations where commercial uses and trucking and freight terminals can be established in the City.
- Update the Land Use, Resources, Safety, and Noise Elements to comply with recently passed State laws and to update pertinent information.
- Update the Implementation Plan with new applicable policies related to the above revised policy changes.
- Revise the Zoning Ordinance and Zoning Map to establish and apply a new Truck and Freight Terminal Overlay (TF) over 1,065 net acres.
- Revise the Zoning Ordinance and Zoning Map to replace and expand the existing Commercial Overlay with the new C-1 and C-2 Commercial Overlays over 281 net acres and 177 net acres, respectively.
- Establish new definitions to address the revisions described above and other minor amendments to the Zoning Ordinance.
- Establish a new Minor Conditional Use Permit process.
- Provide standards for digital billboards.
- Perform additional clean-up, non-substantive revisions to the Zoning Ordinance that do not affect the any prior policy directives.

Each of these components is discussed in detail below. For the purposes of this Supplemental Environmental Impact Report (EIR), the focused update to the Vernon General Plan and Zoning Ordinance is collectively referred to as “the project” and “the Proposed Focused Update.” The “Planning Area” is the area to which the project applies; this includes all parcels within the City of Vernon and its unincorporated sphere of influence.



## Update to General Plan Elements

### Land Use Element

The Land Use Element guides the physical form of Vernon and how land will be used over the long term (see Exhibit 3.0-2, Proposed General Plan Land Use Map). This element sets forth the location, type, and intensity uses, and also establishes the desired mix and relationship between uses. Land use designations identify the types and nature of development permitted throughout the planning area. The goals and policies contained in the Land Use Element provide the foundation for maintaining Vernon as a regional manufacturing and industrial center while allowing for some commercial uses and public facilities.

In recognition of Vernon’s unique status as an exclusively industrial city, the 2007 General Plan established a single land use category (Industrial) and three overlay districts: Commercial, Rendering, and Slaughtering. The Project proposes to expand the area that the Commercial I Overlay applies. New information and policies are proposed to facilitate expansion of commercial uses, new truck and freight terminals, and to promote more intensive employment-generating uses near transit stops. Additional information on flood hazards is provided to comply with State law (AB 162, discussed below). Figure 3.0-1 (Land Use and Zoning Summary) summarizes the area of each designation and zone of the proposed Land Use Policy Map and Zoning Map (note that some overlay districts overlap).

**Figure 3.0-1  
Land Use and Zoning Summary**



### Safety Element

The Safety Element establishes policies to protect the community from natural and human-caused hazards. The element includes a discussion of those features within

### 3.0 Project Description

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or near the planning area that represent a potential danger to buildings/structures, public facilities, and infrastructure. The element establishes goals, policies, and plans to minimize dangers to residents, workers, and visitors associated with seismic hazards, flooding, and hazardous materials.

The Safety Element has been updated to comply with AB 162, enacted in 2007 and effective in 2009. AB 162 revised multiple sections of the Government Code and requires flood risk management information to be included in the Safety Element. As part of this update, flood data from new Federal Emergency Management Agency (FEMA) flood maps was added to the Safety Element. Revisions were also made to earthquake fault maps to update information provided by the California Geological Survey. The existing Safety Element goals will remain the same.

#### Resources Element

The Resources Element contains goals and policies that encourage conservation and management of both cultural and natural resources including water resources, open space, energy resources, air quality, and historic buildings and sites.

The Project involves limited changes to the Resources Element. Specifically, information related to the Urban Water Management Plan (UWMP) applicable to the City is updated to reflect information in the most recently adopted UWMP (2010). Additionally, information and a policy are added to address AB 32, the Global Warming Solutions Act of 2006 and SB 375 (2008). Both laws require consultation with regional governmental groups to coordinate land use, circulation, and infrastructure planning. The existing Resources Element goals will remain the same.

#### Noise Element

The Noise Element focuses on minimizing community noise by identifying its sources and assessing alternative methods to reduce impacts. The element establishes policies to abate noise and reduce the detrimental health effects associated with excessive noise levels. The element identifies noise standards and land use compatibility guidelines to be used in the assessment of development proposals to protect noise-sensitive land uses from excessive noise.

The Project proposes limited changes to the Noise Element to reflect the City's recently adopted housing policy to permit housing and emergency shelters in two identified locations in the City, including a new policy to require new residential development to utilize construction approaches that minimize adverse noise and vibration effects on residents. All other Noise Element goals remain the same.

#### Implementation Plan

The General Plan includes a comprehensive Implementation Plan that provides direction for translating goals and policies to specific actions. The Implementation Plan serves as a basis for making future programming decisions related to the assignment of staff and the expenditure of City funds. The Implementation Plan identifies individual program responsibility, funding sources, and a timeframe for completion.

A limited number of new actions were added to the Implementation Plan to correlate with new policies in the General Plan and funding sources were revised to reflect the loss of redevelopment funding throughout the state.

### **Update to Zoning Ordinance and Zoning Map**

Updates to the Zoning Ordinance and Zoning Map (see Exhibit 3.0-3, Proposed Zoning Map) are largely intended to achieve consistency between the revisions proposed in the Focused General Plan update and the Zoning Ordinance. Revisions include expansion of the Commercial Overlay area and establishment of the C-1 and C-2 commercial overlays, establishment of a new Truck and Freight Terminal Overlay District to permit and provide for development standards for these uses in certain areas of the City, allow for streamlined review of certain types of development projects through a new Minor Conditional Use Permit process, provide standards for digital billboards; and minor, non-substantive changes to clean-up language in the Ordinance to facilitate its interpretation.

#### Commercial Overlay Expansion

The City prepared revisions to the Zoning Ordinance to achieve consistency with the General Plan Land Use Map and policies related to commercial uses of property. These changes are reflected in the proposed amendments to the Zoning Ordinance with the establishment of two separate commercial overlays:

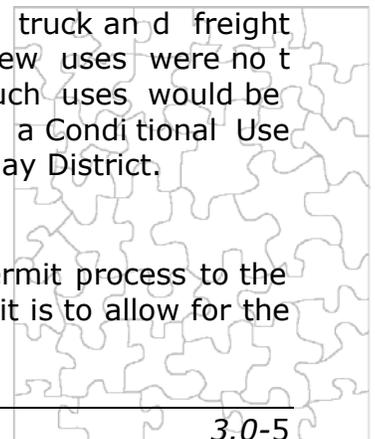
- The C-1 Overlay Zone encompasses 282 acres and identifies areas for the development of mercantile facilities including commercial, service, and business operations that are necessary to support industrial uses at locations where such commercial, service, and business operations would serve existing on-site businesses and surrounding uses by improving access to a greater range of facilities and services.
- The C-2 Overlay Zone encompasses 171 acres and is designed to accommodate, in limited and specific areas of the City, those uses that may ordinarily conflict with the industrial character of the City. The C-2 Overlay Zone is intended to provide for areas for commercial retail facilities at a higher level of intensity than those permitted in the C-1 Overlay Zone.

#### Freight Terminal Overlay Zoning District

The City proposes to establish a new Truck and Freight Terminal Zoning Overlay District (TF) in a portion of the City as represented in Exhibit 3. Development standards, including site planning standards and allowable uses, are included in the Zoning Ordinance amendments. Under existing standards, truck and freight terminals were considered legal nonconforming uses and new uses were not permitted. With the proposed amendment, however, new such uses would be permitted subject to development standards and issuance of a Conditional Use Permit and only within the new Truck and Freight Terminal Overlay District.

#### Streamline Administrative Review Process

The project includes the addition of a Minor Conditional Use Permit process to the Zoning Ordinance. The purpose of a Minor Conditional Use Permit is to allow for the



### 3.0 Project Description

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proper integration of uses into the community which may only be suitable in specific locations or designed and constructed in a particular manner or under certain conditions, but are of a scale that would be less impactful than those that may be permitted with a Conditional Use Permit. The Minor Conditional Use Permit would be reviewed and approved or denied by the Director of Community Services, and would be applicable to certain commercial uses, incidental uses, and ancillary retail uses, as specified in the Zoning Ordinance.

#### Digital Billboards

The project includes establishment of development standards and definitions related to the regulation of digital billboards for which the existing Zoning Ordinance is silent. City standards comport with standards and guidelines of the California Department of Transportation (Caltrans) for digital billboards within 660 feet of a freeway right-of-way.

#### Definitions and Clean Up Items

Section 26.2.3, Definitions, of the Zoning Ordinance is proposed to be updated to increase clarity in interpretation and implement the above policy changes. A number of definitions are proposed to be added or modified, including the definitions of canopy, cell tower, community facility, contractor's yard, floor-area ratio, freight terminal, garage, hazardous waste facility, incidental use, power generating facility, public utility, retail use, slaughtering, truck terminal, and warehouse use, among others.

The Zoning Ordinance is proposed to be updated with the following additional changes:

- Additional uses permitted by right added and uses permitted with a Conditional Use Permit or Minor Conditional Use Permit added or revised
- Buffer requirements for acutely hazardous materials within 500 feet of a school added
- Screening of outdoor storage activities modified
- Clarifications on water usage requirements for Conditional Use Permits added
- Performance measures for noxious odors added
- Clarifications on required number of parking by use, parking access, and street dedication
- Extension of amortization of nonconforming outdoor activities and storage to 2015
- Other minor clarification and typographical changes

#### **Project Objectives**

This Project is being pursued so that the City's General Plan and Zoning Ordinance are consistent with State law and consistent with each other, and to provide standards and Zoning District Overlays for uses that were not previously addressed, or addressed to a lesser detail, in the existing Zoning Ordinance.

Other objectives of the General Plan remain unchanged. Specifically, the City's intent is to continue to support the ongoing industrial character of the City while recognizing the changing industrial environment throughout the United States and globally, and to respond appropriately. The Vernon General Plan is intended to achieve the following objectives:

- To allow Vernon to remain an exclusively industrial city that serves the needs of industry, including the manufacture of goods for local, national, and international consumers.
- To provide a balanced transportation system for the safe and efficient movement of people, goods, and emergency services throughout the City.
- To maintain and improve the City's infrastructure services to meet the needs of industry.
- To minimize the risk to public health, safety, and welfare associated with the presence of natural and human-caused hazards.
- To conserve and protect the City's natural resources including water, energy, open space, and air quality.

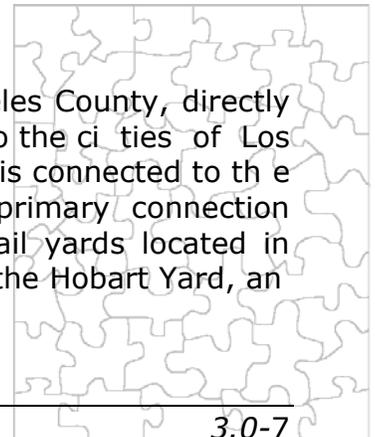
### Surrounding Land Uses

The project applies to all parcels within the City of Vernon and its unincorporated sphere of influence. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. Surrounding uses in these cities include residential, commercial, and industrial uses.

With regard to proposed General Plan land use changes and related consistency Zoning Map changes, the project would expand the Commercial Overlay District. The Commercial Overlay District would be comprised of two separate commercial overlays: C-1 and C-2. The C-2 Commercial Overlay District would constitute the expansion area, and is proposed to include additional parcels along Soto Street, as well as properties on Slauson Avenue and Atlantic Boulevard. Surrounding uses are generally industrial in nature, with a limited number of commercial uses. Additionally, the potential expansion of the Commercial Overlay District would be adjacent to Maywood Elementary School, located in the adjacent City of Maywood. The Zoning Map has an additional proposed amendment: the Truck and Freight Terminal Overlay District. This overlay would apply to a northern portion of the City, as indicated in Exhibit 3.0-3 (Proposed Zoning Map). Surrounding uses are general industrial in nature, as well as rail yards and rail lines. The Los Angeles River borders much of this proposed Overlay District.

### Environmental Setting

The City of Vernon is located in the central portion of Los Angeles County, directly southeast of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. Vernon is connected to the regional rail lines via the Alameda Corridor, which is the primary connection between the ports of Los Angeles and Long Beach and the rail yards located in Vernon, Commerce, and downtown Los Angeles. A portion of the Hobart Yard, an



### 3.0 Project Description

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intermodal facility where large shipping containers are transferred from railroad cars to trucks and vice versa, is also located in Vernon.

The corporate limits of the City of Vernon encompass approximately 5.2 square miles, extending generally from Alameda Street and the Alameda Corridor on the west to the I-710 freeway to the east, and from the cities of Maywood and Huntington Park on the south and the cities of Los Angeles and Commerce to the north. A portion of unincorporated Los Angeles County is located in the planning area that includes primarily industrial uses and portions of the Los Angeles River. Lands within Vernon largely have been developed with industrial uses since incorporation in 1905. Close to 50,000 employees commute into Vernon daily to work in the 1,200 manufacturing, warehousing, industrial, and transportation-related businesses. As of 2010, Vernon had only 31 residences and a population of 112 persons.

#### Required Approvals

- The City Council must approve a General Plan Amendment that incorporates the focused updates into the current General Plan, including an amendment to the Land Use Map to expand the Commercial Overlay.
- The City Council must approve a Zone Ordinance Text Amendment to create and implement the Truck and Freight Terminal Overlay, expand the Commercial Overlay, and incorporate other focused amendments, as itemized above, to facilitate implementation and ease interpretation of the Zoning Ordinance.
- The City Council must approve a Zoning Map Amendment to apply the Truck and Freight Terminal Overlay and expansion of the Commercial Overlay (including both C-1 and C-2 overlays) to the Zoning Map.

#### Other Public Agencies Whose Approval Is Required

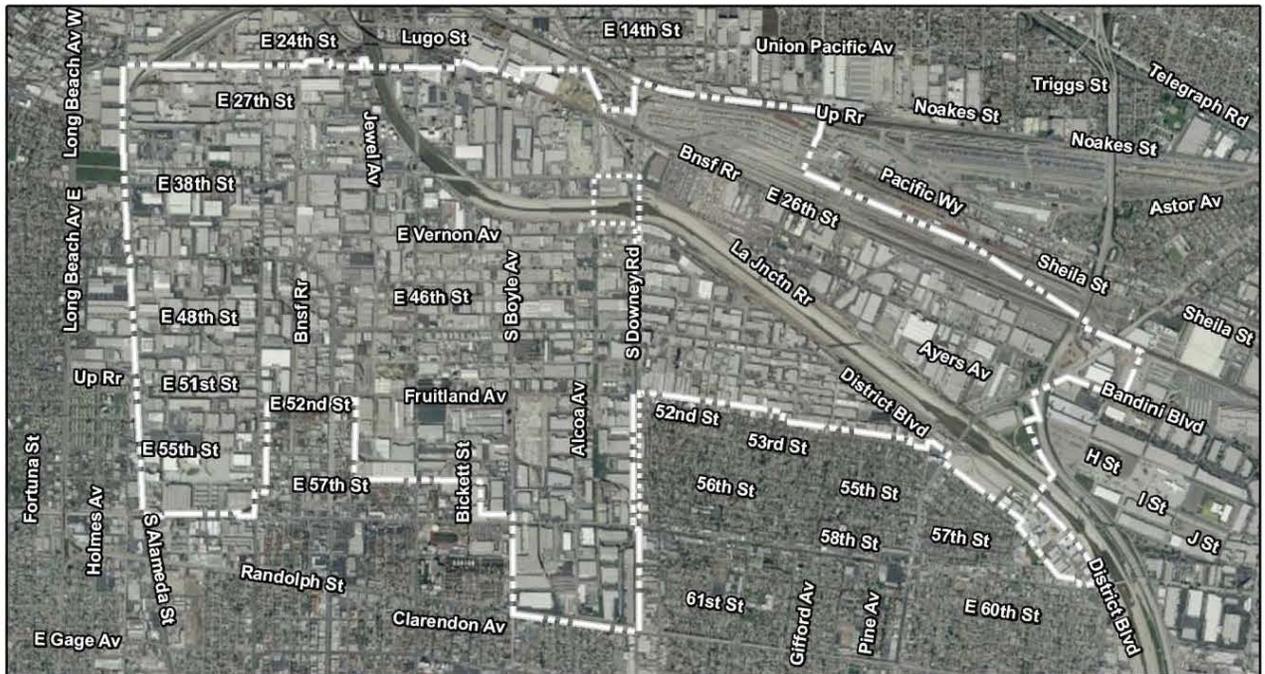
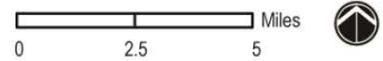
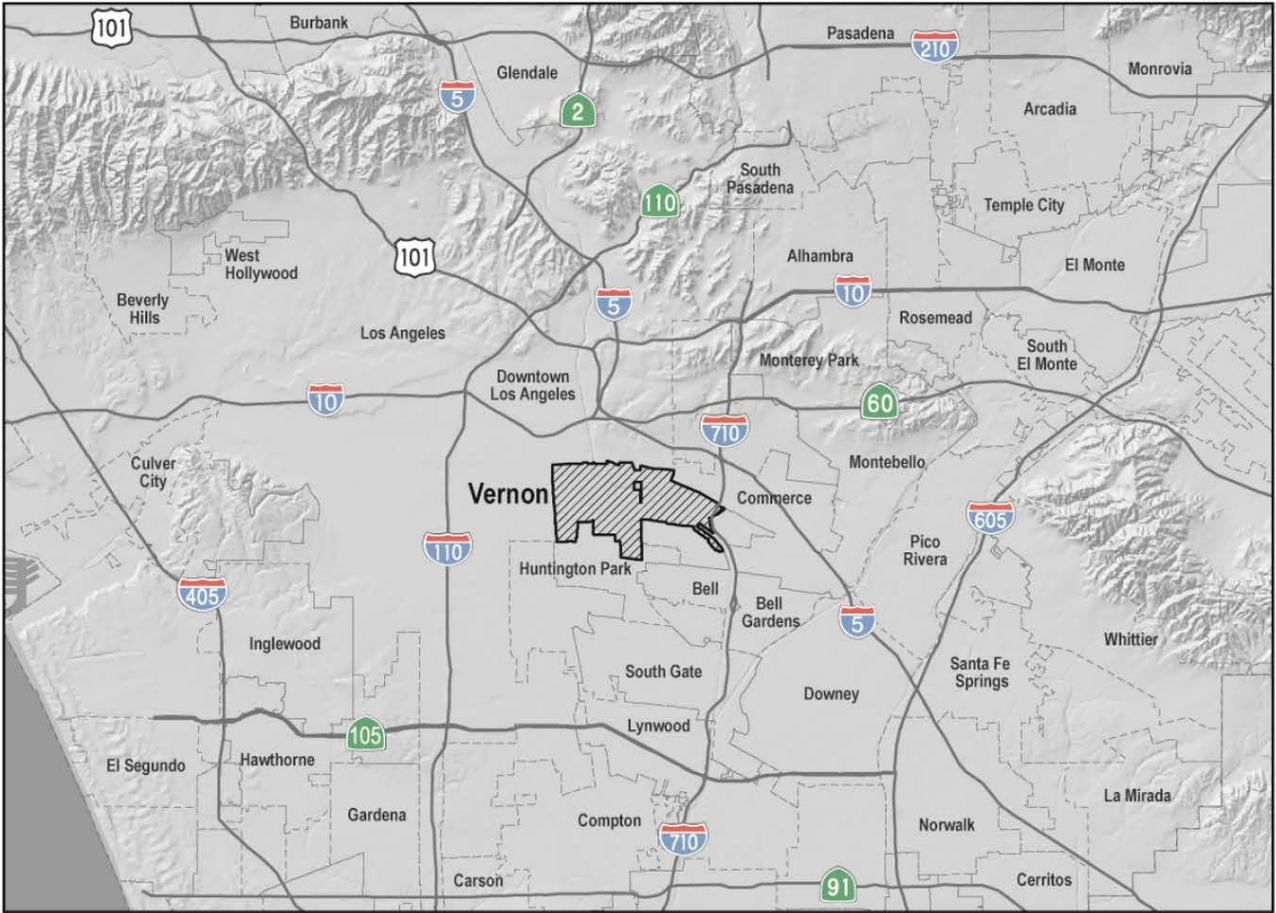
None

#### Approach

The environmental analysis contained in this Supplemental Program EIR is based on the following assumptions:

*Project Specific Environmental Review:* In the City of Vernon, all development proposals that are considered “projects” under CEQA are subject to the environmental review process to determine the level of impact and to impose appropriate mitigation measures, if needed, to avoid significant impacts.

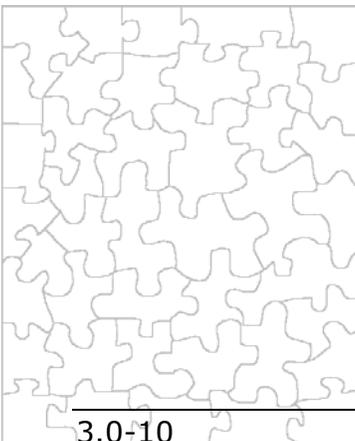
*Purpose and Focus of this Supplemental EIR for the Focused General Plan and Zoning Ordinance Environmental Review:* This project would not authorize any plans for construction of new uses, or redevelopment of any properties to produce new uses. The proposed project is an update to existing policy documents. No other direct environmental impacts would occur. The purpose of the environmental assessment is to identify changes to the General Plan and Zoning Ordinances and the associated changes to the previously certified EIR needed to make the previous EIR adequately apply to the project as revised (CEQA Guidelines Section 15163).

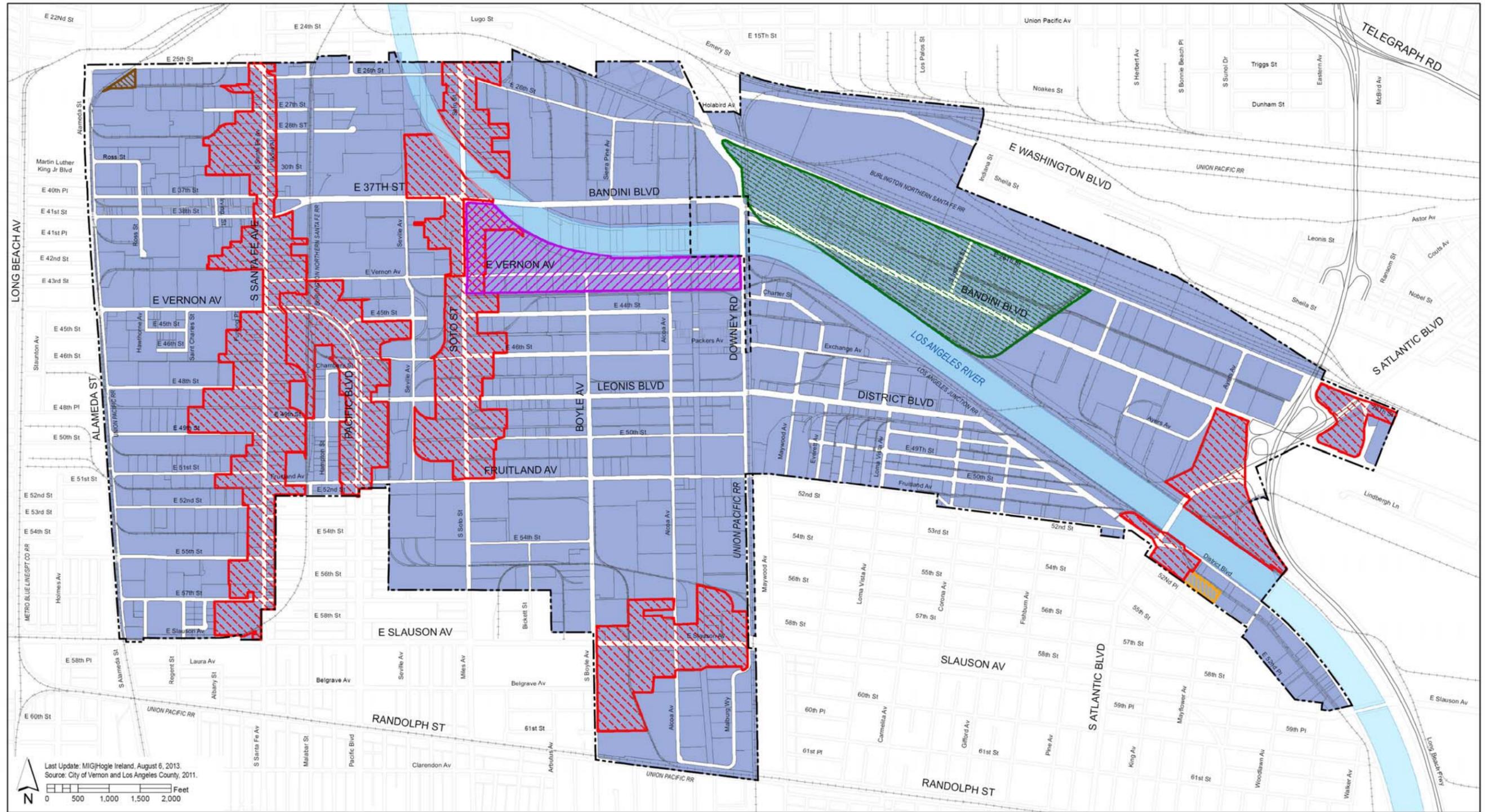


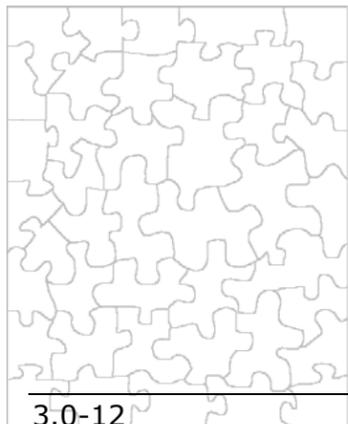
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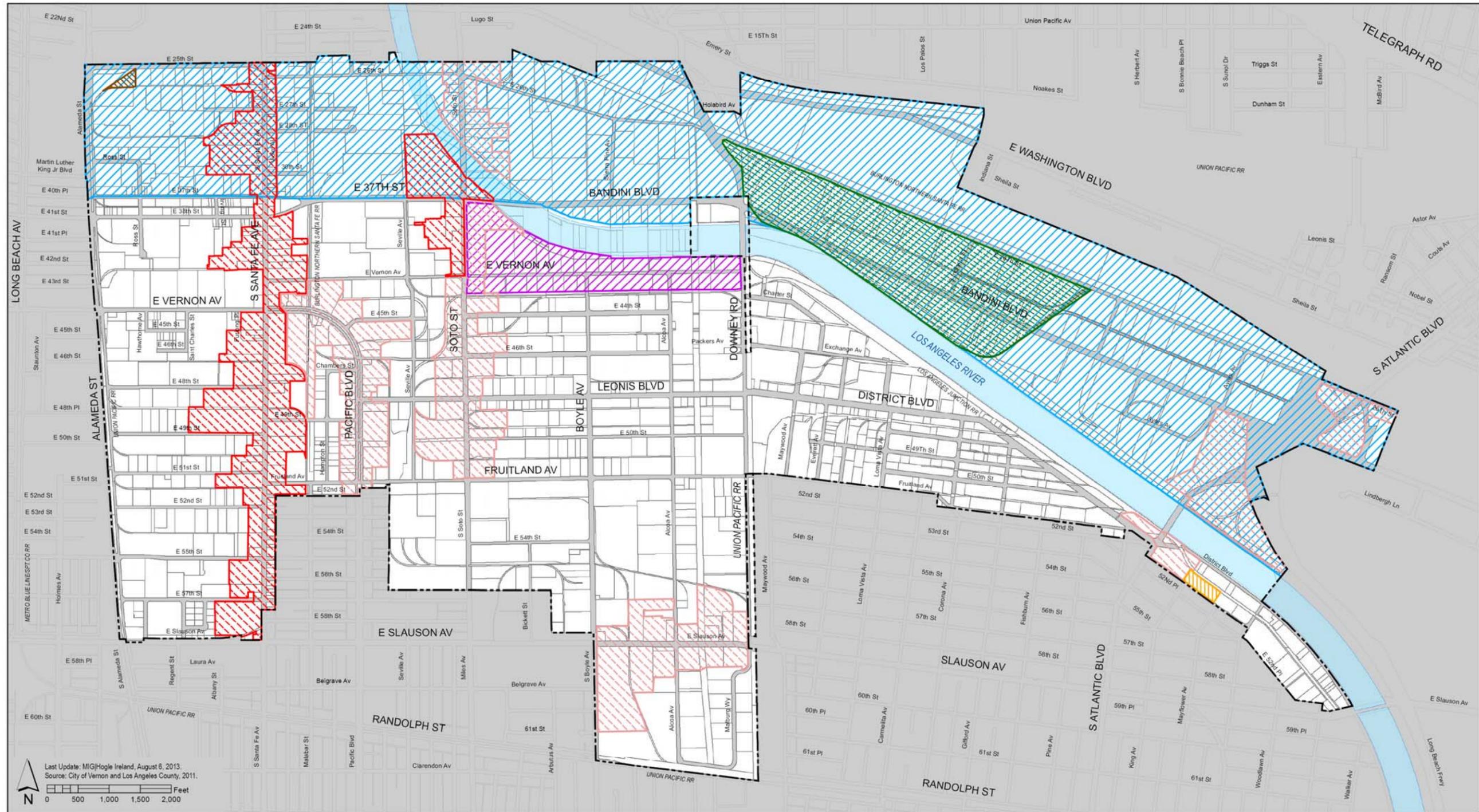


## Exhibit 3.0-1 - Regional Context and Vicinity Map







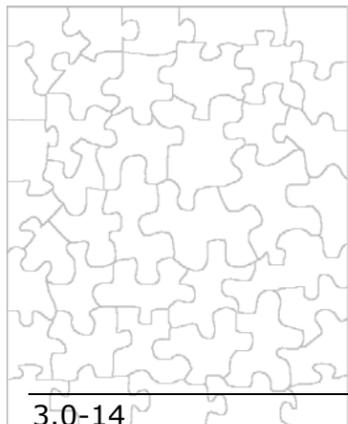


Last Update: MIG/Hogle Ireland, August 6, 2013.  
 Source: City of Vernon and Los Angeles County, 2011.

- |             |                            |                            |
|-------------|----------------------------|----------------------------|
| <b>Zone</b> | <b>Overlay Zones</b>       | <b>Base Map</b>            |
| Industrial  | Housing                    | Vernon City Boundary       |
|             | Emergency Shelter          | Vernon Sphere of Influence |
|             | Commercial-1               | Los Angeles River          |
|             | Commercial-2               |                            |
|             | Rendering                  |                            |
|             | Slaughtering               |                            |
|             | Truck and Freight Terminal |                            |

## Exhibit 3.0-3 - Proposed Zoning Map

City of Vernon General Plan Update  
 Vernon, CA



|                                      |          |
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| 4 | Environmental Impact Analysis |
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## Air Quality 4.1

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This section of the Supplemental EIR examines potential impacts to air quality in Vernon, and whether future development permitted due to changes to the General Plan and the Zoning Code and associated changes to the certified Program EIR would increase those impacts. The Initial Study (Appendix A) indicated that there will be no impacts relative to objectionable odors.

### ***Environmental Setting***

Vernon lies within the South Coast Air Basin (SCAB), a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is a non-attainment area for federal standards for carbon monoxide (CO). The SCAB is also a non-attainment area for federal and state air quality standards for ozone (O<sub>3</sub>), particulate matter less than 10 microns in diameter (PM<sub>10</sub>) and particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>).

### **Climate and Meteorological Conditions**

Area climatological conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity. All seasons generally exhibit onshore wind flows during the day and offshore flows at night, after the land cools below the temperature of the ocean. The likelihood of strong offshore flows, including Santa Ana winds, is greater during winter than during summer. (California Air Resources Board, 1984)

The topography and climate of Southern California combine to produce unhealthy air quality within the SCAB. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded air quality, especially in inland valleys of the basin.

### **Existing Air Quality Conditions**

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of a basin, and a basin's meteorological conditions. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollution emissions and air quality.

The Program Environmental Impact Report discussed air quality standards, regulations, and pollutant concentrations. The SCAQMD regulates air quality improvement programs within the SCAB and works to improve regional air quality to achieve federal and state standards. The monitoring stations record concentrations of various pollutants including: O<sub>3</sub>, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), PM<sub>10</sub>, particulate matter less than 2.5 microns

## 4.1 Air Quality

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in diameter (PM<sub>2.5</sub>), lead (Pb), and sulfates (SO<sub>4</sub>). An updated Table 4.1-1 summarizes the state and federal standards and sources of criteria pollutants as of 2012.

Air pollution levels are measured at monitoring stations located throughout the Basin. Areas that are in nonattainment with respect to criteria pollutants are required to prepare plans and implement measures that will bring the region into attainment. Table 4.1-2 (South Coast Air Basin Attainment Status) summarizes the attainment status in the Basin for the criteria pollutants. The Basin is currently in nonattainment status for ozone and inhalable and fine particulate matter.

Pollution problems in the Basin are caused by emissions within the area and the specific meteorology that promotes pollutant concentrations. Emissions sources vary widely from smaller sources such as individual residential water heaters and short-term grading activities to extensive operational sources including long-term operation of electrical power plants and other intense industrial use. Pollutants in the Basin are blown inward from coastal areas by sea breezes from the Pacific Ocean and are prevented from horizontally dispersing due to the surrounding mountains. This is further complicated by atmospheric temperature inversions that create inversion layers. The inversion layer in Southern California refers to the warm layer of air that lies over the cooler air from the Pacific Ocean. This is strongest in the summer and prevents ozone and other pollutants from dispersing upward. A ground-level surface inversion commonly occurs during winter nights and traps carbon monoxide emitted during the morning rush hour.

Measurements taken by SCAQMD at the Central Los Angeles monitoring station from 2001 to 2005 were summarized in the certified Program EIR. Table 4.1-3 summarizes measurements taken from 2006 to 2012 and shows that air quality standards at these locations have been exceeded for PM<sub>2.5</sub>, PM<sub>10</sub>, and O<sub>3</sub>. This is consistent with the entire SCAB's classification as non-attainment for PM<sub>10</sub> and O<sub>3</sub>. The following summary of pollutants was provided in the Program EIR with updated information on exceedance of standards for Ozone. All other pollutants

**Ozone (O<sub>3</sub>).** The most pervasive air quality problem in the Basin is high ozone concentrations. Ozone is the principal component of smog and is formed in the atmosphere through a complex series of photochemical reactions involving volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>), which are commonly referred to as precursors of O<sub>3</sub> and are both considered critical in O<sub>3</sub> formation; NO<sub>x</sub> includes various combinations of nitrogen and oxygen, including NO, NO<sub>2</sub>, NO<sub>3</sub>, etc. Significant O<sub>3</sub> production generally requires about three hours in a stable atmosphere with strong sunlight. Ozone is a regional air pollutant because it is transported and diffused by wind concurrent with the photochemical reaction process. Motor vehicles are the major source of ozone precursors in the air basin. During late spring, summer, and early fall, light winds, low mixing heights, and abundant sunshine combine to produce conditions favorable for maximum production of O<sub>3</sub>. Ozone causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease. Ozone is also damaging to vegetation and untreated rubber. Control

strategies for O<sub>3</sub> have focused on reducing emissions from vehicles, industrial processes using solvents and coatings, and consumer products. In each of the five latest years for which air quality data exists (2006-2012), the state 1-hour ozone standard was exceeded in Central Los Angeles for as many as eight days (see Table 4.1-4).

In 1997, the United States Environmental Protection Agency (USEPA) issued a new standard for O<sub>3</sub>, using an 8-hour average. After years of litigation, the standard was approved and attainment designations were made. Los Angeles County is in nonattainment for both the state and federal standards; federal standards were exceeded at the Central Los Angeles monitoring station for a total of five days between 2001 and 2005, with the most in one year being two days in 2003. In June of 2005, the federal 1-hour O<sub>3</sub> standard was revoked by the USEPA.

**Carbon Monoxide (CO).** CO is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Overall, CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. Concentrations of CO are typically higher in winter. As a result, California has required the use of oxygenated gasoline in the winter months to reduce CO emissions. CO interferes with the transfer of oxygen to the blood. It may cause dizziness and fatigue and can impair central nervous system functions. The 1-hour and 8-hour average CO standards have not been exceeded at the Central Los Angeles Monitoring Station during the last five years (see Table 4.1-4).

**Nitrogen Dioxide (NO<sub>2</sub>).** There are two oxides of nitrogen that are important in air pollution: nitric oxide (NO) and NO<sub>2</sub>. NO, along with some NO<sub>2</sub>, is emitted from motor vehicle engines, power plants, refineries, industrial boilers, ships, aircraft, and railroads. NO<sub>2</sub> is primarily formed when NO reacts with atmospheric oxygen in the presence of VOC and sunlight; the other product of this reaction is O<sub>3</sub>. Nitrogen dioxide is the whiskey-brown colored gas, more commonly known as smog, observed during periods of heavy air pollution. Concentrations of NO<sub>2</sub> are highest during the late fall and winter. NO<sub>2</sub> increases damage from respiratory disease and irritation, and may reduce resistance to certain infections. Neither the federal nor state standards for NO<sub>2</sub> have been exceeded in Central Los Angeles during the last five years (see Table 4.1-4).

**Particulate Matter (PM).** PM is a complex mixture of extremely small particles and liquid droplets. PM is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Natural sources of particulates include windblown dust and ocean spray.

The size of PM is directly linked to the potential for causing health problems. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Health studies have shown a significant association between exposure to PM and premature death. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heart beat (USEPA 2006). Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children. The USEPA groups PM into two categories: fine particulate matter and coarse particulate matter.

**Fine Particulate Matter (PM<sub>2.5</sub>)**. Fine particles, such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. Sources of fine particles include all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. PM<sub>2.5</sub> is the major cause of reduced visibility (haze) in California. Ammonium nitrates and ammonium sulfates represent a dominant fraction of PM<sub>2.5</sub> components and are formed in the atmosphere through secondary reactions of precursor emissions of NO<sub>x</sub>, SO<sub>x</sub> and ammonia. Reducing the sulfur content of fuels has proven to be an effective measure of control for SO<sub>x</sub> reductions, and thereby PM<sub>2.5</sub>. Control of PM<sub>2.5</sub> is primarily achieved through the regulation of emission sources, such as the USEPA's Clean Air Interstate Rule and Clean Air Visibility Rule for stationary sources, and the 2004 Clean Air Non-road Diesel Rule, the Tier 2 Vehicle Emission Standards, and Gasoline Sulfur Program; or the California Air Resources Board (CARB) Goods Movement reduction plan.

**Coarse Particulate Matter (PM<sub>10</sub>)**. Inhalable coarse particles, such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter. Sources of coarse particles include crushing or grinding operations and dust from paved or unpaved roads. The health effects of PM<sub>10</sub> are similar to PM<sub>2.5</sub>. Control of PM<sub>10</sub> is primarily achieved through the control of dust at construction and industrial sites, the cleaning of paved roads, and the wetting or paving of frequently used unpaved roads.

**Sulfur Dioxide (SO<sub>2</sub>)**. SO<sub>2</sub> is a combustion product, with the primary source being power plants and heavy industry that use coal or oil as fuel. SO<sub>2</sub> is also a product of diesel engine combustion. The health effects of SO<sub>2</sub> include lung disease and breathing problems for asthmatics. SO<sub>2</sub> in the atmosphere contributes to the formation of acid rain. In the SCAB, there is relatively little use of coal and oil, and SO<sub>2</sub> is of lesser concern than in many other parts of the country. The federal and state standards for SO<sub>2</sub> have not been exceeded in the last five years at the Central Los Angeles Monitoring Station (see Table 4.1-4).

**Table 4.1-1  
National and California Ambient Air Quality Standards**

| Pollutant   | Averaging Time                        | California Standards <sup>1</sup>    |  | Federal Standards <sup>2</sup>                          |                          |   |                                       |
|---|---------------------------------------|--------------------------------------|--|---|--------------------------|---|---------------------------------------|
|   |                                       | Concentration <sup>3</sup>           | Method <sup>4</sup>                                    | Primary <sup>3,5</sup>                                  | Secondary <sup>3,6</sup> | Method <sup>7</sup>   |                                       |
| Ozone (O <sub>3</sub> )                           | 1 Hour                                | 0.09 ppm<br>(180 µg/m <sup>3</sup> ) | Ultraviolet Photometry                                 | -   | Same as Primary Standard | Ultraviolet Photometry  |                                       |
|   | 8 Hour                                | 0.07 ppm<br>(137 µg/m <sup>3</sup> ) |  | 0.075 ppm<br>(147 µg/m <sup>3</sup> )                   |                          |   |                                       |
| Respirable Particulate Matter (PM <sub>10</sub> ) | 24 Hour                               | 50 µg/m <sup>3</sup>                 | Gravimetric or Beta Attenuation                        | 150 µg/m <sup>3</sup>                                   | Same as Primary Standard | Inertial Separation and Gravimetric Analysis                        |                                       |
|   | Annual Arithmetic Mean                | 20 µg/m <sup>3</sup>                 |  | -   |                          |   |                                       |
| Fine Particulate Matter (PM <sub>2.5</sub> )      | 24 Hour                               | No Separate State Standard           |  | 35 µg/m <sup>3</sup>                                    | Same as Primary Standard | Inertial Separation and Gravimetric Analysis                        |                                       |
|   | Annual Arithmetic Mean                | 12 µg/m <sup>3</sup>                 | Gravimetric or Beta Attenuation                        | 15 µg/m <sup>3</sup>                                    |                          |   |                                       |
| Carbon Monoxide (CO)                              | 1 Hour                                | 20 ppm<br>(23 mg/m <sup>3</sup> )    | Non-Dispersive Infrared Photometry (NDIR)              | 35 ppm<br>(40 mg/m <sup>3</sup> )                       | None                     | Non-Dispersive Infrared Photometry (NDIR)                           |                                       |
|   | 1 Hour                                | 9.0 ppm<br>(10mg/m <sup>3</sup> )    |  | 9 ppm<br>(10 mg/m <sup>3</sup> )                        |                          |   |                                       |
|   | 8 Hour (Lake Tahoe)                   | 6 ppm<br>(7 mg/m <sup>3</sup> )      |  | -   |                          |   |                                       |
| Nitrogen Dioxide (NO <sub>2</sub> )               | Annual Arithmetic Mean                | 0.03 ppm<br>(57 µg/m <sup>3</sup> )  | Gas Phase Chemiluminescence                            | 0.053 ppm<br>(100 µg/m <sup>3</sup> )                   | Same as Primary Standard | Gas Phase Chemiluminescence   |                                       |
|   | 1 Hour                                | 0.18 ppm<br>(339 µg/m <sup>3</sup> ) |  | 100 ppb<br>(188 µg/m <sup>3</sup> )                     |                          |   |                                       |
| Sulfur Dioxide (SO <sub>2</sub> )                 | 1 Hour                                | 0.25 ppm<br>(655 µg/m <sup>3</sup> ) | Ultraviolet Fluorescence                               | 75 ppb<br>(196 µg/m <sup>3</sup> )                      | -                        | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |                                       |
|   | 3 Hour                                | -                                    |  | -   |                          |   | 0.5 ppm<br>(1,300 µg/m <sup>3</sup> ) |
|   | 24 Hour                               | 0.04 ppm<br>(105 µg/m <sup>3</sup> ) |  | 0.14 ppm (for certain areas) <sup>9</sup>               |                          |   | -                                     |
|   | Annual Arithmetic Mean                | -                                    |  | 0.030 ppm (for certain areas) <sup>9</sup>              |                          |   | -                                     |
| Lead <sup>9</sup>                                 | 30 Day Average                        | 1.5 µg/m <sup>3</sup>                | Atomic Absorption                                      | -   | -                        | High Volume Sampler and Atomic Absorption                           |                                       |
|   | Calendar Quarter                      | -                                    |  | 1.5 µg/m <sup>3</sup> (for certain areas) <sup>11</sup> |                          |   |                                       |
|   | Rolling 3-Month Average <sup>10</sup> | -                                    |  | 0.15 µg/m <sup>3</sup>                                  |                          |   |                                       |
| Visibility Reducing Particles                     | 8 Hour                                | See footnote 12                      | Beta Attenuation and Transmittance through Filter Tape | No  |                          |   |                                       |
| Sulfates  | 24 Hour                               | 25 µg/m <sup>3</sup>                 | Ion Chromatography                                     | Federal   |                          |   |                                       |
| Hydrogen Sulfide                                  | 1 Hour                                | 0.03 ppm<br>(42 µg/m <sup>3</sup> )  | Ultraviolet Fluorescence                               | Standards   |                          |   |                                       |
| Vinyl Chloride <sup>9</sup>                       | 24 Hour                               | 0.01 ppm<br>(26 µg/m <sup>3</sup> )  | Gas Chromatography                                     |   |                          |   |                                       |

Source: ARB, June 2012

PPM, parts per million  
µg/m<sup>3</sup>, micrograms per cubic meter

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour),

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and particulate matter ( $PM_{10}$ ,  $PM_{2.5}$ , 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.

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  $150 \mu\text{g}/\text{m}^3$  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.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

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.

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.

8. To attain the 1-hour national standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100ppb. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 100ppb is identical to 0.100ppm.

9. On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

10. The ARB 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.

11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

12. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.



**Table 4.1-2  
South Coast Air Basin Attainment Status**

| Pollutant             | Federal       | State         |
|-----------------------|---------------|---------------|
| O <sub>3</sub> (1-hr) | --            | Nonattainment |
| O <sub>3</sub> (8-hr) | Nonattainment | Nonattainment |
| PM <sub>10</sub>      | Nonattainment | Nonattainment |
| PM <sub>2.5</sub>     | Nonattainment | Nonattainment |
| CO                    | Attainment    | Attainment    |
| NO <sub>2</sub>       | Attainment    | Nonattainment |
| SO <sub>2</sub>       | Attainment    | Attainment    |
| Pb                    | Nonattainment | Nonattainment |
| VRP                   | --            | Unclassified  |
| SO <sub>4</sub>       | --            | Attainment    |
| H <sub>2</sub> S      | --            | Unclassified  |

Sources: ARB 2013

**Table 4.1-3  
Air Quality Data for 2006 to 2012: Central Los Angeles Monitoring Station**

| Pollutant (units)                      | Averaging Time | Maximum Concentrations <sup>i</sup> |        |        |        |       |        |       |
|--|----------------|-------------------------------------|--------|--------|--------|-------|--------|-------|
|  |                | 2006                                | 2007   | 2008   | 2009   | 2010  | 2011   | 2012  |
| O <sub>3</sub> (ppm)                   | 1 hour         | 0.11                                | 0.115  | 0.109  | 0.139  | 0.098 | 0.087  | 0.093 |
|  | 8 hours        | 0.079                               | 0.102  | 0.090  | 0.100  | 0.080 | 0.065  | 0.077 |
| CO (ppm)                               | 1 hour         | 3                                   | 3      | 3      | 3      | 3     | N/A    | N/A   |
|  | 8 hours        | 2.6                                 | 2.2    | 2.1    | 2.2    | 2.3   | 2.4    | 1.9   |
| NO <sub>2</sub> (ppm)                  | 1 hour         | 0.11                                | 0.10   | 0.12   | 0.12   | 0.089 | 0.110  | 77.3* |
|  | Annual (AAM)   | 0.0288                              | 0.0299 | 0.0275 | 0.0281 | 0.025 | 0.0231 | 24.8* |
| PM <sub>10</sub> (µg/m <sup>3</sup> )  | 24 hours       | 59                                  | 78     | 66     | 72     | 42    | 53     | 80    |
|  | Annual(AAM)    | 30.3                                | 33.3   | 30.9   | 33.1   | 27.1  | 29.0   | 30.2  |
| PM <sub>2.5</sub> (µg/m <sup>3</sup> ) | 24 hours       | 56.2                                | 64.2   | 78.3   | 61.7   | 39.2  | 49.3   | 58.7  |
|  | Annual (AAM)   | 15.6                                | 16.8   | 15.7   | 14.3   | 11.9  | 13.0   | 12.5  |
| SO <sub>2</sub> (ppm)                  | 1 hour         | 0.03                                | 0.01   | 0.01   | 0.01   | 9.8*  | 19.8*  | 5.2*  |
|  | 24 hours       | 0.006                               | 0.003  | 0.002  | 0.002  | 1.5*  | N/A    | N/A   |

Source: South Coast Air Quality Management District, 2006-2012.

\* In ppb

**Table 4.1-4  
2006-2012 Air Quality Standards Exceedance**

| Year | O <sub>3</sub> (PPM) |            |            | PM <sub>10</sub> (µg/m <sup>3</sup> ) |             | PM <sub>2.5</sub> (µg/m <sup>3</sup> ) |
|------|----------------------|------------|------------|---------------------------------------|-------------|--|
|      | Fed* 8-hr            | State 1-hr | State 8-hr | Fed 24-hr                             | State 24-hr | Fed^ 24-hr                             |
| 2006 | 0                    | 8          | 4          | 0                                     | 3 (5.1)     | 11 (3.3)                               |
| 2007 | 3                    | 3          | 6          | 0                                     | 5 (9)       | 20 (0.6)                               |
| 2008 | 3                    | 3          | 7          | 0                                     | 2 (4%)      | 10 (3.0)                               |
| 2009 | 2                    | 3          | 5          | 0                                     | 4 (6.7)     | 7 (1.9)                                |
| 2010 | 1                    | 1          | 1          | 0                                     | 0           | 2 (0.6%)                               |
| 2011 | 0                    | 0          | 0          | 0                                     | 1 (2%)      | 4 (1.2%)                               |
| 2012 | 1                    | 0          | 2          | 0                                     | 4           | 4                                      |

Source: SCAQMD 2006-2012  
 -- pollutant not monitored  
 \* 0.075 ppm  
 ^ 35 µg/m<sup>3</sup>

### ***Sensitive Receptors***

The SCAQMD defines sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Sensitive receptors, as defined by SCAQMD and used in this section of this Supplemental EIR, include asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Sensitive receptors located in or near the vicinity of known air emissions sources, including freeways and heavily traveled intersections, are of particular concern.

### ***Toxic Air Pollutants***

Toxic air pollutants, such as asbestos, can be emitted during the demolition of buildings that contain toxic contaminants and during the operation of certain industrial processes that utilize toxic substances. Federal and state governments have implemented a number of programs to control toxic air emissions. For example, the federal Clean Air Act provides a program for the control of hazardous air pollutants. In addition, the California legislature has enacted programs such as the Tanner Toxics Act (AB1807), the Air Toxics Hot Spot Assessment Program (AB2588), the Toxics Emissions Near Schools Program (AB3205) and the Disposal Site Air Monitoring Program (AB3374).

Additionally, mobile sources can also contribute to toxic air pollution. The Multiple Air Toxics Exposure Study (MATES-II) is a comprehensive monitoring study of TACs that was initiated as part of AQMD's environmental justice program. This study revealed that diesel exhaust is responsible for approximately 70 percent of the total cancer risk from air pollution. While diesel is considered a toxic air pollutant, and as such is called a "non-criteria" air contaminant because ambient air quality standards have not been established, diesel pollution may be addressed under measures that seek to control PM<sub>2.5</sub> because diesel pollution manifests as ultrafine particulate matter.

### ***Regulatory Framework***

The Program EIR includes a summary of the Federal Clean Air Act, the California Clean Air Act, and the 2003 and 2007 SCAQMD Air Quality Management Plan (AQMP), all of which are applicable to the current project. The SCAQMD AQMP was updated in 2012.

The 2012 AQMP was adopted by the SCAQMD board on December 7, 2012. The 2012 AQMP incorporated the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP includes the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. The SCAQMD is currently in the process of preparing the 2015 AQMP update.

The SCAQMD has published a handbook (CEQA Air Quality Handbook, November 1993) that provides local governments with guidance for analyzing and mitigating project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs.

In order to control air pollution in the Basin, SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of businesses, processes, operations, and products to implement the AQMP and the various federal and state air quality requirements. SCAQMD does not adopt rules for mobile sources; those are established by ARB or the United States Environmental Protection Agency (EPA). Rules that will be applicable during construction of future development include Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent opacity in the air). Rule 403 requires the implementation of Best Available Control Measures (BACM) and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres. Rule 1113 establishes the thresholds for low-VOC coatings.

### ***Global Climate Change***

Global climate change (GCC) refers to the change in average meteorological conditions on the Earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO<sub>2</sub> (carbon dioxide), N<sub>2</sub>O (nitrous oxide), CH<sub>4</sub> (methane), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

According to CARB, the climate change that is currently in effect differs from previous climate changes in both rate and magnitude (CARB, 2004, Technical Support document for Staff Proposal Regarding Reduction of Greenhouse Gas Emissions from Motor Vehicles). Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor. In 2004, the state is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and

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2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls.

Global climate change first became a matter of concern in the 1980s, and the United Nations in 1988 created the Intergovernmental Panel on Climate Change to assess the potential impacts of global warming and develop strategies that could be instituted by nations in order to reduce greenhouse gas emissions. In California, efforts to reduce California's energy use began in the 1970s, although not in response to global climate change concerns. Title 24 Part 6, enacted in 1978, required buildings to meet energy efficiency standards.

Vehicle emissions of greenhouse gases were targeted in 2002 with the passage of AB1493, which required CARB to develop regulations to limit greenhouse gas emissions by cars and light duty trucks. These measures went into effect in 2009, and it is estimated that vehicle emissions of greenhouse gases will be reduced by approximately 18 percent by 2020. (CARB 2004) Although the United States has pledged over \$29 billion for research into global climate change, the USEPA does not currently regulate vehicle greenhouse gas emissions. However, the USEPA does have the authority to regulate vehicle greenhouse gas emissions under the Clean Air Act, as found in the Supreme Court ruling in *Massachusetts v. USEPA* (2007).

In 2006, AB 32, the California Global Warming Solutions Act, was signed into law by Governor Schwarzenegger, giving CARB the primary responsibility in reducing statewide greenhouse gas emissions to 1990 levels by 2020. CARB is also required by January 1, 2008 to determine greenhouse gas emission levels for 1990 and to approve a statewide greenhouse gas emissions limit to be achieved by 2020 that is based on this limit.

Specific, anticipated impacts to California have been identified in the 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) through extensive modeling efforts.<sup>ii</sup> General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevadas
- Some reduction in precipitation is likely by the middle of the century
- Sea-levels will rise up to an estimated 55 inches
- Extreme events such as heat waves, wildfires, droughts, and floods will increase
- Ecological shifts of habitat and animals are already occurring and will continue to occur

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections. The potential impacts of global climate change in California are detailed below.

## **Public Health and Welfare**

Concerns related to public health and climate change includes higher rates of mortality and morbidity, change in prevalence and spread of disease vectors, decreases in food quality and security, reduced water availability, and increased exposure to pesticides. These concerns are all generally related to increase in ambient outdoor air temperature, particularly in summer.

Higher rates of mortality and morbidity could arise from more frequent heat waves at greater intensities. Health impacts associated with extreme heat events include heat stroke, heat exhaustion, and exacerbation of medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Climate change would result in degradation of air quality promoting the formation of ground-level pollutants, particularly ozone. Degradation of air quality would increase the severity of health impacts from criteria and other air pollutants discussed in Section 4.3 (Air Quality). Temperature increases and increases in carbon dioxide are also expected to increase plant production of pollens, spores, and fungus. Pollens and spores could induce or aggravate allergic rhinitis, asthma, and obstructive pulmonary diseases.

Precipitation projections suggest that California will become drier over the next century due to reduced precipitation and increased evaporation from higher temperatures. These conditions could result in increased occurrences of drought. Surface water reductions will increase the need to pump groundwater, reducing supplies and increasing the potential for land subsidence.

Precipitation changes are also suspected to impact the Sierra snowpack (see Water Management herein). Earlier snow melts could coincide with the rainy season and could result in failure of the flood control devices in that region. Flooding can cause property damage and loss of life for those affected. Increased wildfires are also of concern as the State dries over time. Wildfires can also cause property damage, loss of life, and injuries to citizens and emergency response services.

Sea-level rises would also threaten human health and welfare. Flood risks will be increased in coastal areas due to strengthened storm surges and greater tidal damage that could result in injury and loss of property and life. Gradual rising of the sea will permanently inundate many coastal areas in the state.

Other concerns related to public health are changes in the range, incidence, and spread of infectious, water-borne, and food-borne diseases. Changes in humidity levels, distribution of surface water, and precipitation changes are all likely to shift or increase the preferred range of disease vectors (i.e. mosquitoes). This could expose more people and animals to potential for vector-borne disease.

## **Biodiversity and Habitat**

Changes in temperature will change the livable ranges of plants and animals throughout the state and cause considerable stress on these species. Species will shift their range if appropriate habitat is available and accessible if they cannot



adapt to their new climate. If they do not adapt or shift, they face local extirpation or extinction. As the climate changes, community compositions and interactions will be interrupted and changed. These have substantial implications on the ecosystems in the state. Extreme events will lead to tremendous stress and displacement on affected species. This could make it easier for invasive species to enter new areas, due to their ability to more easily adapt. Precipitation changes would alter stream flow patterns and affect fish populations during their life cycle. Sea level rises could impact fragile wetland and other coastal habitat.

### **Water Management**

Although disagreement among scientists on long-term precipitation patterns in the State has occurred, it is generally accepted by scientists that rising temperatures will impact California's water supply due to changes in the Sierra Nevada snowpack. Currently, the State's water infrastructure is designed to both gather and convey water from melting snow and to serve as a flood control device. Snowpack melts gradually through spring warming into early summer, releasing an average of approximately 15 million acre-feet of water. The State's concern related to climate change is that due to rising temperatures, snowpack melt will begin earlier in the spring and will coincide with the rainy season. The combination of precipitation and snowmelt would overwhelm the current system, requiring tradeoffs between water storage and flood protection to be made. Reduction in reserves from the Sierra Nevada snowpack is troublesome for California and particularly for Southern California. Approximately 75-percent of California's available water supply originates in the northern third of the state while 80 percent of demand occurs in the southern two-thirds. There is also concern that rising temperatures will result in decreasing volumes from the Colorado River basin. Colorado River water is important to Southern California because it supplies water directly to Metropolitan Water District of Southern California. Water from the Colorado River is also used to recharge groundwater basins in the Coachella Valley.

### **Agriculture**

California is the most agriculturally productive state in the U.S. resulting in more than 37 billion dollars in revenue in 2008. California is the nation's leading producer of nearly 80 crops and livestock commodities, supplying more than half of the nation's fruit and vegetables and over 90 percent of the nation's production of almonds, apricots, raisin grapes, olives, pistachios, and walnuts. Production of crops is not limited to the Central Valley but also occurs in Southern California. Strawberries and grapes are grown in San Bernardino and Riverside Counties. Orange County and San Diego County also contribute to strawberry production. Cherries are also grown in Los Angeles and Riverside County. Anticipated impacts to agricultural resources are mixed when compared to the potentially increased temperatures, reduced chill hours, and changes in precipitation associated with climate change. For example, wheat, cotton, maize, sunflower, and rice are anticipated to show declining yields as temperatures rise. Conversely, grapes and almonds would benefit from warming temperatures. Anticipated increases in the number and severity in heat waves would have a negative impact on livestock where heat stress would make livestock more vulnerable to disease, infection and

mortality. The projected drying trend and changes in precipitation are a threat to agricultural production in California. Reduced water reliability and changes in weather patterns would impact irrigated farmlands and reduce food security. Furthermore, a drying trend would increase wildfire risk. Overall, agriculture in California is anticipated to suffer due to climate change impacts.

## Forestry

Increases in wildfires will substantially impact California's forest resources that are prime targets for wildfires. This can increase public safety risks, property damage, emergency response costs, watershed quality, and habitat fragmentation. Climate change is also predicted to affect the behavior or plant species including seed production, seedling establishment, growth, and vigor due to rising temperatures. Precipitation changes will affect forests due to longer dry periods and moisture deficits and drought conditions that limit seedling and sapling growth. Prolonged drought also weakens trees, making them more susceptible to disease and pest invasion. Furthermore, as trees die due to disease and pest invasion (i.e. the Bark Beetle invasion of the San Bernardino Forest), wildfires can spread more rapidly.

## Transportation and Energy Infrastructure

Higher temperatures will require increased cooling, raising energy production demand. Higher temperatures also decrease the efficiency of distributing electricity and could lead to more power outages during peak demand. Climate changes would impact the effectiveness of California's transportation infrastructure as extreme weather events damage, destroy, and impair roadways and railways throughout the state causing governmental costs to increase as well as impacts to human life as accidents increase. Other infrastructure costs and potential impacts to life would increase due to the need to upgrade levees and other flood control devices throughout the state. Infrastructure improvement costs related to climate change adaptation are estimated in the tens of billions of dollars.

The global warming potential (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 which compares the gas being measured to carbon dioxide (whose GWP is by definition 1). GWP is based on a number of factors, including the heat-absorbing ability of each gas and the decay rate of each gas relative to that of carbon dioxide. The higher the GWP, the more impact the gas has on global warming. The GWP measures in this report are based on a 100-year time horizon. The principal greenhouse gases resulting from anthropogenic activity that enter and accumulate in the atmosphere are discussed below:

- **Carbon Dioxide (CO<sub>2</sub>):** Carbon dioxide is created in the combustion of fossil fuels, forest clearing, and biomass burning. Human activity is more closely tied to carbon dioxide concentrations in the atmosphere than other greenhouse gases, and carbon dioxide is used as a reference to compare the impacts of other greenhouse gases. Concentrations of carbon dioxide in the atmosphere have typically increased at a rate of 0.5% per year and levels today are 30% higher than those prior to the industrial revolution.

- **Methane (CH<sub>4</sub>):** Methane is a hydrocarbon produced through production and distribution of natural gas and oil, coal production, incomplete fuel combustion, waste decomposition, and animal digestion. Methane concentrations in the atmosphere are over twice their pre-industrial levels, and increasing 0.6% each year, although this rate is thought to be slowing. The global warming potential of methane is 23.<sup>iii</sup>
- **Nitrous Oxide (N<sub>2</sub>O):** Nitrous oxide is emitted during fossil fuel combustion, biomass burning, and certain agricultural and industrial activities. Compared to carbon dioxide, nitrous oxide is an especially dangerous greenhouse gas, with a global warming potential of 296.
- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are some of the most potent greenhouse gases, they are referred to as having a “High Global Warming Potential.” The global warming potential of these gases ranges from 140 to 23,900.

Since adoption of the Program EIR, the Air Resources Board Scoping Plan, Executive Order S-3-05, the Sustainable Communities and Climate Protection Act, California Green Building Standards, and the Water Conservation Landscaping Act were adopted. In addition, the City of Vernon has established a goal to become a leader in environmentally responsible energy generation.

### **Air Resources Board Scoping Plan**

The ARB Scoping Plan is the comprehensive plan to reach the GHG reduction targets stipulated in AB 32. The key elements of the plan are to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners in the Western Climate Initiative (includes seven states in the United States and four territories in Canada), establish transportation-related targets, and establish fees.<sup>iv</sup> ARB estimates that implementation of Scoping Plan measures will reduce GHG emissions in the state by 174 MMTC<sub>2E</sub> by 2020; therefore, implementation of the Scoping Plan will meet the 2020 reduction target. In a report prepared on September 23, 2010, ARB indicates that 40 percent of the reduction measures identified in the Scoping Plan have been secured.<sup>v</sup> ARB held the hearing for the cap-and-trade program rulemaking on December 16, 2010. The cap-and-trade program began January 1, 2012 after ARB completed a series of activities that deal with the registration process, compliance cycle, and tracking system; however, covered entities will not have an emissions obligation until 2013.<sup>vi</sup> ARB is currently working on the low carbon fuel standard where public hearings and workshops are currently being conducted. In August 2011, the Scoping Plan was reapproved by the ARB Board with the program’s environmental documentation.

## Executive Order S-3-05

Executive Order S-3-05 was issued by California Governor Arnold Schwarzenegger and established targets for the reduction of greenhouse gas emissions at the milestone years of 2010, 2020, and 2050. Statewide GHG emissions must be reduced to 1990 levels by year 2020 and by 80 percent beyond that by year 2050. The Order requires the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate with other State departments to identify strategies and reduction programs to meet the identified targets. A Climate Action Team (CAT) was created and is headed by the Secretary of CalEPA who reports on the progress of the reduction strategies. The latest CAT Biennial Report to the Governor and Legislature was completed in December 2010.<sup>vii</sup> CAT also works in 11 subgroups to support development and implementation of the Scoping Plan (see California Global Warming Solutions Act herein).

**Table 4.1-5  
Scoping Plan Measures**

| Measure | Description   |
|---------|---|
| T-1     | Pavely I and II – Light Duty Vehicle Greenhouse Gas Standards   |
| T-2     | Low Carbon Fuel Standard  |
| T-3     | Regional Transportation-Related Greenhouse Gas Targets          |
| T-4     | Vehicle Efficiency Measures                                     |
| T-5     | Ship Electrification at Ports                                   |
| T-6     | Good Movement Efficiency Measures                               |
| T-7     | Heavy-Duty Vehicle Aerodynamic Efficiency                       |
| T-8     | Medium and Heavy-Duty Vehicle Hybridization                     |
| T-9     | High Speed Rail   |
| E-1     | Energy Efficiency (Electricity Demand Reduction)                |
| E-2     | Increase Combined Heat and Power Use                            |
| E-3     | Renewable Portfolio Standard                                    |
| E-4     | Million Solar Roofs   |
| CR-1    | Energy Efficiency (Natural Gas Demand Reduction)                |
| CR-2    | Solar Water Heating   |
| GB-1    | Green Buildings   |
| W-1     | Water Use Efficiency  |
| W-2     | Water Recycling   |
| W-3     | Water System Energy Efficiency                                  |
| W-4     | Reuse Urban Runoff  |
| W-5     | Increase Renewable Energy Production                            |
| W-6     | Public Good Charge (Water)                                      |
| I-1     | Energy Efficiency for Large Industrial Sources                  |
| I-2     | Oil and Gas Extraction GHG Reductions                           |
| I-3     | Oil and Gas Transmission Leak Reductions                        |
| I-4     | Refinery Flare Recovery Process Improvements                    |
| I-5     | Removal of Methane Exemption from Existing Refinery Regulations |
| RW-1    | Landfill Methane Control  |
| RW-2    | Increase Landfill Methane Capture Efficiency                    |
| RW-3    | Recycling and Zero Waste  |

| Measure | Description  |
|---------|--|
| F-1     | Sustainable Forest Target                                  |
| H-1     | Motor Vehicle Air Conditioning                             |
| H-2     | Non-Utilities and Non-Semiconductor SF <sub>6</sub> Limits |
| H-3     | Semiconductor Manufacturing PFC Reductions                 |
| H-4     | Consumer Products High GWP Limits                          |
| H-5     | High GWP Mobile Source Reductions                          |
| H-6     | High GWP Stationary Source Reductions                      |
| H-7     | High GWP Mitigation Fees                                   |
| A-1     | Large Dairy Methane Capture                                |

### **Sustainable Communities and Climate Protection Act**

In January 2009, California Senate Bill (SB) 375 went into effect known as the Sustainable Communities and Climate Protection Act.<sup>viii</sup> The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks ARB to set greenhouse gas reduction targets for each of the California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy (APS) may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In the Southern California Association of Governments (SCAG) region (in which the project is located), sub-regions can also elect to prepare their own SCS or APS. In August 2010, ARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the SCAG region were 8-percent by year 2020 and 13-percent by year 2035. The 8-percent year 2020 target was adopted in September 2010 and tentatively adopted the 13-percent year 2035 target until February 2011 to provide additional time for SCAG, ARB, and other stakeholders to account for additional resources (such as state transportation funds) needed to achieve the proposed targets. In February 2011, the SCAG President affirmed the year 2035 reduction target and SCAG staff updated ARB on additional funding opportunities. The status of funding was requested to be revisited again in year 2014.

### **California Green Building Standards**

New California Green Building Standards Code (CALGREEN) went into effect on January 1, 2011.<sup>ix</sup> The purpose of the new addition to the California Building Code (CBC) is to improve public health, safety, and general welfare by enhancing the design and construction of buildings using concepts to reduce negative impacts or produce positive impacts on the environment. The CALGREEN regulations cover planning and design, energy efficient, water efficiency and conservation, material conservation and resources efficiency, and environmental quality. Many of the new regulations have the effect of reducing greenhouse gas emissions from the

operation of new buildings. Table 4.1-6 (CALGREEN Requirements) summarizes the previous requires of the CBC and the new requirements of CALGREEN that went into effect in January 2011. Minor technical revisions and additional requirements went into effect in July 2012.

**Table 4.1-6  
CALGREEN Requirements**

| Item |                          | Requirements   |  |
|------|--------------------------|--|--|
|      |                          | Previous   | CALGREEN   |
| 4.1  | Stormwater Management    | Stormwater management required on projects > than one acre                   | All projects subject to stormwater management.   |
|      | Surface Drainage         | Surface water must flow away from building                                   | Drainage patterns must be analyzed   |
| 4.2  | Energy Efficiency        | California Energy Code   | Minimum energy efficiency to be established by California Energy Commissions   |
| 4.3  | Indoor Water Use         | HCD maximum flush rates; CEC water use standards for appliances and fixtures | Indoor water use must decrease by at least 20 percent (prescriptive or performance based)  |
|      | Multiple Showerheads     | Not covered  | Multiple showerheads can not exceed combined flow of the code  |
|      | Irrigation Controllers   | Not covered  | Irrigation controllers must be weather or soil moisture based controllers  |
| 4.4  | Joint Protection         | Plumbing and Mechanical Codes  | All openings must be sealed with materials that rodents cannot penetrate   |
|      | Construction Waste       | Local Ordinances   | Establishes minimum 50 percent recycling and waste management plan   |
|      | Operation                | Plumbing Code for gray water systems   | Educational materials and manuals must be provided to building occupants and owners to ensure proper equipment operation           |
| 4.5  | Fireplaces               | Local Ordinances   | Gas fireplaces must be direct-vent sealed-combustion type; Wood stoves and pellet stoves must meet USEPA Phase II emissions limits |
|      | Mechanical Equipment     | Not covered  | All ventilation equipment must be sealed from contamination during construction  |
|      | VOCs                     | Local Ordinances   | Establishes statewide limits on VOC emissions from adhesives, paints, sealants, and other coatings                                 |
|      | Capillary Break          | No prescriptive method of compliance   | Establishes minimum requirements for vapor barriers in slab on grade foundations   |
|      | Moisture Content         | Current mill moisture levels for wall and floor beams is 15-20 percent       | Moisture content must be verified prior to enclosure of wall or floor beams  |
|      | Whole House Fans         | Not covered  | Requires insulated louvers and closing mechanism when fan is off   |
|      | Bath Exhaust Fans        | Not covered  | Requires Energy Star compliance and humidistat control   |
| 7    | HVAC Design              | Minimal requirements for heat loss, heat gain, and duct systems              | Entire system must be designed in respects to the local climate  |
|      | Installer Qualifications | HVAC installers need not be trained  | HVAC installers must be trained or certified   |
|      | Inspectors               | Training only required for structural materials                              | All inspectors must be trained   |

Source: HCD 2010

### **Water Conservation in Landscaping Act**

Section 65591 of the Government Code requires all local jurisdictions to adopt a water efficient landscape ordinance. The ordinance is to address water conservation through appropriate use and grouping of plants based on environmental conditions, water budgeting to maximize irrigation efficiency, storm water retention, and automatic irrigation systems. Failure to adopt a water efficiency ordinance requires a local jurisdiction to enforce the provisions of the State's model water efficiency ordinance. In 2009, the Department of Water Resources (DWR) updated the Model Water Efficient Landscape Ordinance pursuant to amendments to the 1991 Act. These amendments and the new model ordinance went into effect on January 1, 2010. The amended Act is applicable to any new commercial, multi-family, industrial or tract home project containing 2,500 square feet (SF) or more of landscaping. Individual landscape projects of 5,000 SF or more on single-family properties will also be subject to the Act. All landscape plans are required to include calculations verifying conformance with the maximum applied water allowance and must be prepared and stamped by a licensed landscape architect.

### **Green Vernon**

Vernon is committed to green energy and development. Listed below are ways the city is planning to achieve its goal of becoming a leader in environmentally responsible energy generation and environmentally sustainable city management.<sup>x</sup>

- Vernon purchased 30,000 acres of property in Kern County for the development of wind and solar-generated electricity. The initial proposed wind energy project is expected to generate 175 megawatts of renewable energy.
- A climate action plan will be prepared to guide the City on how to take advantage of opportunities to reduce emissions of gases linked to climate change.
- The city has commissioned a study to create a Green Industrial Development Plan to establish a series of programs to enhance environmental sustainability and support economic vitality while protecting the health of its residents and workers and the residents in surrounding communities.

### ***Threshold for Determining Significance***

#### **Air Quality**

For the purpose of this EIR, a significant impact will occur if implementation of the updated General Plan and revised Zoning Ordinance will:

- A. Conflict with or obstruct implementation of the applicable air quality plan;

- B. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- C. Result in a cumulatively considerable net increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- D. Expose sensitive receptors to substantial pollutant concentrations; or
- E. Create objectionable odors affecting a substantial number of people.

Projects that exceed these thresholds are considered to have a significant adverse impact on air quality. The certified Program EIR determined that the General Plan Update would not conflict with or obstruct implementation of the applicable air quality plan and would not result in the creation of objectionable odors which would affect a substantial number of people. This determination is still applicable, and will not be analyzed further in this Supplemental EIR.

To determine if maximum daily criteria pollutant emissions from construction and operation of the proposed project are significant, the SCAQMD significance thresholds are used. These thresholds are identified in Table 4.1-7 (SCAQMD Maximum Daily Emissions Thresholds (lbs/day)).

**Table 4.1-7  
SCAQMD Maximum Daily Emissions Thresholds (lbs/day)**

| <b>Pollutant</b>    | <b>Construction</b> | <b>Operation</b> |
|---------------------|---------------------|------------------|
| NO <sub>x</sub>     | 100                 | 55               |
| VOC/ROG             | 75                  | 55               |
| PM <sup>10</sup>    | 150                 | 150              |
| PM <sup>2.5</sup>   | 55                  | 55               |
| SO <sub>x</sub>     | 150                 | 150              |
| CO                  | 550                 | 550              |
| Lead                | 3                   | 3                |
| Source: SCAQMD 2012 |                     |                  |

SCAQMD has also established thresholds for emissions of toxic air contaminants. Toxic air emissions from a project are considered potentially significant if maximum incremental cancer risk is greater than 10 persons in 1,000,000 (1E-05). Cancer risk is determined by calculating the annual average toxic concentration (µg/m<sup>3</sup>) and multiplying it by the unit risk factor (URF) for the toxic and the lifetime exposure adjustment (LEA) of the receptor. URF represents the estimated probability that a person will contract cancer as a result of inhalation of a toxic of 1 µg/m<sup>3</sup> continuously over 70 years. Because some receptors are exposed to toxics for less than 70 years (i.e. off-site workers), the LEA adjusts the receptors

exposure to represent actual exposure time. The LEA for residential uses and other sensitive receptors is 1, representing an assumed exposure of 70 continuous years.

Acute and chronic non-cancer risks are considered significant if the project toxic air contaminant emissions result in a hazard index greater than or equal to 1. The hazard index is determined by calculating the average annual toxic concentration ( $\mu\text{g}/\text{m}^3$ ) divided by the reference exposure level (REL) for a particular toxic. The REL is the concentration at which no adverse health impacts are anticipated and is established by OEHHA.

### **Greenhouse Gas Emissions**

The proposed project could result in potentially significant impacts related to greenhouse gas emissions and global climate change if it would:

- A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- B. Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.

As a policy document, the proposed General Plan update and revised Zoning Ordinance will not directly result in construction or operation of any development that contributes to climate change and associated impacts. However, implementation of the General Plan will guide future development that will generate greenhouse gases and will contribute to climate change. Future development projects will be required to determine if individually they exceed recognized or adopted thresholds that comply with adopted greenhouse gas reduction plans.

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not been established by the South Coast Air Quality Management District (SCAQMD). As an interim threshold based on guidance provided in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>E) per year for industrial projects, 3,500 MTCO<sub>2</sub>E for residential projects, 1,400 MTCO<sub>2</sub>E for commercial projects, and 3,000 MTCO<sub>2</sub>E for mixed use projects. This threshold is based on the review of 711 CEQA projects. These thresholds will be utilized for implementing development in the future in determining if emissions of greenhouse gases will be significant, until an officially adopted threshold is established and accepted by the City.



## ***Environmental Impact***

### **Impacts 4.1.A through 4.1.C Criteria Pollutants**

With the exception of a limited number of vacant lots, Vernon is completely built out. New development will result from rebuilding activity and the replacement of older, less efficient buildings with more functional ones. The updated General Plan and revised Zoning Ordinance provide for Vernon to remain a primarily industrial city with limited housing. All new businesses established in the City over the lifetime of the General Plan update are anticipated to be similar to those which exist today. The proposed expanded Commercial Overlay District along Santa Fe Avenue, Pacific Boulevard, Atlantic Boulevard, and Slauson Avenue, and portions of Soto Street will allow for limited commercial uses. The proposed project will also establish and apply a new Truck and Freight Terminal Overlay. However, as indicated in the certified General Plan EIR, long-term implementation of the updated General Plan and revised Zoning Ordinance is anticipated to result in a decrease in overall building square footage citywide, by approximately 1.2 million square feet, as older buildings are replaced by structures that meet current City standards for off-street parking and loading and other development standards.

Air quality impacts for General Plan build out year 2030 were analyzed in the certified Program EIR using CARB's land use and air pollution emissions model (URBEMIS 2007). Compared to 2007 (baseline) conditions, the previous General Plan and Zoning Ordinance update resulted in a reduction of all pollutant and greenhouse gas emissions.

Since adoption of the certified Program EIR in 2007, the City of Vernon has adopted a Housing Element that identifies opportunities for housing in the City. Existing 2012 land use conditions will serve as the baseline, and year 2035 build out conditions based on the updated General Plan Land Use Plan, which includes the adopted Housing Element, will serve as the proposed project conditions. The analysis utilizes guidance provided in the South Coast Air Quality Management District (SCAQMD) 1993 California Environmental Quality Act (CEQA) Air Quality handbook as amended and supplemented. The California Emissions Estimator Model (CalEEMod) v 2013.2.2 was used to forecast emissions levels for baseline and project operational activity. Underlying land use designations for the City is Industrial. The implementation of zoning overlays will not affect this underlying land use designation. Therefore, CalEEMod was used to model air quality and greenhouse gas emissions for general light industrial use for the entire city minus rail and utility right-of-ways, streets, and vacant parcels during baseline conditions. Project build out conditions includes vacant parcels as future development is likely to occur.

#### Emissions Sources

The zoning overlay areas are intended to allow for more flexible, non-industrial land uses. As the built-out city redevelops, older industrial uses within each Overlay may be replaced by other uses. Default CalEEMod trip and emissions rates for uses

## 4.1 Air Quality

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anticipated within each Overlay Zone are discussed below. The General Light Industry land use category is estimated to generate approximately 6.97 daily trips per 1,000 square feet and use 4.9 kWhr/square foot/year of Title-24 electricity energy intensity, 3.23 kWhr/square foot/year of nontitle 24 Electricity energy intensity, 7.04 kWhr/square foot/year lighting energy intensity, 1.21 KBTU/square foot/year Title-24 Gas Energy Intensity, and 0.49 KBTU/square foot/year of nontitle-24 Natural Gas Energy Intensity. Consumer products include cleaning supplies and aerosol products that emit volatile organic compounds (VOC). Use of consumer products is common in all settings.

### Commercial Overlay Zones

The C-1 Overlay Zone identifies areas for the development of mercantile facilities including commercial, service, and business operations that are necessary to support industrial uses and serve existing on-site businesses and surrounding uses by improving access to a greater range of facilities and services. The C-2 Overlay Zone identifies areas for uses that may ordinarily conflict with the industrial character of the City. Commercial retail facilities within the C-2 Overlay Zone can provide for higher levels of intensity than those permitted in the C-1 Overlay Zone. Potential commercial land uses fall under CalEEMod's retail strip mall designation. Compared to the CalEEMod General Light Industry land use designation, retail strip malls have a higher trip rate of 44.32 daily trips per 1,000 square feet. Although the trip rate is higher, general light industrial uses will have a higher rate of heavy-duty and medium-duty trips. Retail strip malls also have a higher electricity and natural gas usage rate per square foot. According to CalEEMod, each square foot of retail strip mall space is estimated to use 4.9 kWhr/year of Title-24 electricity energy intensity, 3.23 kWhr/year of nontitle-24 electricity energy intensity, 7.04 kWhr/year of lighting energy intensity, 1.21 KBTU/year Title-24 natural gas energy intensity, and 0.49 kWhr/year nontitle-24 natural gas energy intensity.

### Housing Overlay Zone

The Housing Overlay Zone will allow for limited residential development in Vernon. It is assumed that housing will be multi-family. The CalEEMod default trip rate for mid-rise apartments is 6.59 daily trips per dwelling unit, less than per 1,000 square foot of light industrial. Each dwelling unit is also estimated to use approximately 267.12 kWhr/year of Title-24 electricity energy intensity, 2,553.86 kWhr/year of nontitle-24 electricity energy intensity, 741.44 kWhr/year of lighting energy intensity, 5,523.82 KBTU/year of Title-24 natural gas energy intensity, and 1,662 kWhr/year of nontitle-24 natural gas energy intensity. The size of each dwelling unit varies and is not comparable to an industrial use due to the difference in equipment, appliances used.

### Emergency Shelter Overlay Zone

The Emergency Shelter Overlay Zone is intended to allow the development of a shelter to the homeless. It is anticipated that the only vehicle trips to the facility will be limited to the on-site manager, employees, and volunteers. Energy consumption will be similar to that of multi-family residential units and is not comparable to industrial use.

### Rendering and Slaughtering Overlay Zones

The Rendering and Slaughtering Overlay Zones are intended to support the processing of animal products into useful, value-added materials. The rendering and slaughtering use falls under the CalEEMod manufacturing land use category and will generate approximately 3.82 daily trips per 1,000 square feet, less than that of light industrial use. Each square foot of manufacturing use is estimated to use the same amount of electricity and natural gas as general light industry.

### Truck and Freight Terminal Overlay Zone

Truck and freight uses fall under the CalEEMod unrefrigerated warehouse (no rail) category. Warehouse land uses are anticipated to generate approximately 2.59 daily trips per 1,000 square feet, less than light industrial use. Each square foot of warehouse use is estimated to use less electricity and natural gas as light industrial use, using 0.79 KWhr/year of Title-24 electricity energy intensity, 1.34 KWhr/year of nontitle-24 electricity energy intensity, 2.23 KWhr/year of lighting energy intensity, 0.88 KBTU/year of Title-24 natural gas energy intensity, and 0.03 KBTU/year of nontitle-24 natural gas energy intensity.

The underlying land use designations of the city remain industrial. The Overlay Zones merely provide opportunities for more flexible uses as the city evolves, and does not change the underlying land use. No specific uses are being authorized at this time. The type and scale of each proposed development project will have an effect on air quality impacts and will be determined on a project by project basis.

### AQMP Consistency and Pollutant Emissions

A significant impact could occur if the proposed project conflicts with or obstructs the implementation of the current SCAQMD AQMP. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards.

As a policy document, no development is authorized or will directly occur from the adoption of the General Plan update. However, development will occur within the planning area as guided by the policies of the General Plan. Short-term criteria pollutant emissions will occur during site preparation, grading, building construction, paving, and painting/coating activities. Emissions will occur from use of construction equipment, worker, vendor, and hauling trips, and disturbance of on-site soils (fugitive dust). Long-term criteria air pollutant emissions will result from the operation of potential development. Long-term emissions are categorized as area source emissions, energy demand emissions, and operational emissions. Operational emissions will result from automobile, truck, and other vehicle sources associated with daily trips to and from future development.

As indicated in the Initial Study for the certified General Plan EIR, the General Plan Resources Element includes the following policies that ensure compliance with the AQMP. The Resources Element ensures that land use decisions implement and comply with federal, state, and local regulations pertaining to air quality. The

policies of the Resources Element remain applicable and continued implementation would provide for continued compliance with SCAQMD regulations. The underlying land use designations of the city remain industrial, as was analyzed in the previous General Plan EIR. The proposed Overlay Zones merely provide opportunities for more flexible uses as the city evolves, and does not change the underlying land use or intent of the General Plan to support primarily industrial uses in the city. Therefore, compliance with SCAQMD regulations is consistent with the findings of the certified General Plan EIR and no additional impacts will result.

### **GOAL R-2**

Contribute to the continued gradual improvement of air quality in the South Coast Air Basin.

**POLICY R-2.1:** Coordinate and cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in efforts to implement the regional Air Quality Management Plan.

**POLICY R-2.2:** Encourage and facilitate the use of public transportation to reduce emissions associated with automobile use.

**POLICY R-2.3:** Continue to expand the number of City-owned alternative fuels vehicles, hybrid vehicles, and other energy-efficient vehicles as they may be available.

**POLICY R-2.4:** Encourage the use of clean, efficient, state-of-the-art natural gas power plants.

Using CalEEMod, long-term emissions from the planning area were modeled. Table 4.1-8 (Existing 2012 Total Daily Emissions (lbs/day)) summarizes the current operational daily emissions based on all general light industrial use in the city excluding approximately vacant parcels. Table 4.1-9 (2035 General Plan Buildout Total Daily Emissions (lbs/day)) summarizes the total operational daily emissions for General Plan Buildout year 2035 reflecting complete industrial use include the currently vacant parcels. These represent a worst-case scenario based on complete industrial buildout based on General Plan land use policy. Table 4.1-10 (Net Daily Emissions (lbs/day)) summarizes the change in daily emissions from the existing 2012 baseline year to buildout year 2035.



**Table 4.1-8  
Existing 2012 Total Daily Emissions (lbs/day)**

| Source              | ROG             | NO <sub>x</sub>  | CO               | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---------------------|-----------------|------------------|------------------|-----------------|------------------|-------------------|
| <i>Summer</i>       |                 |                  |                  |                 |                  |                   |
| Area                | 2,977.60        | 0.12             | 12.15            | 0.0009          | 0.04             | 0.04              |
| Energy              | 63.26           | 575.07           | 483.06           | 3.45            | 43.71            | 43.71             |
| Mobile              | 3,992.54        | 13,111.85        | 53,171.59        | 109.64          | 212.93           | 195.52            |
| <b>Summer Total</b> | <b>7,033.40</b> | <b>13,687.04</b> | <b>53,667.80</b> | <b>113.09</b>   | <b>256.68</b>    | <b>239.27</b>     |
| <i>Winter</i>       |                 |                  |                  |                 |                  |                   |
| Area                | 2,977.60        | 0.12             | 12.15            | 0.00087         | 0.04             | 0.04              |
| Energy              | 63.26           | 575.07           | 483.06           | 3.45            | 43.71            | 43.71             |
| Mobile              | 4,116.64        | 13,828.83        | 51,193.08        | 104.07          | 213.95           | 196.46            |
| <b>Winter Total</b> | <b>7,157.50</b> | <b>14,404.03</b> | <b>51,688.29</b> | <b>107.52</b>   | <b>257.70</b>    | <b>240.21</b>     |

**Table 4.1-9  
2035 General Plan Buildout Total Daily Emissions (lbs/day)**

| Source              | ROG             | NO <sub>x</sub> | CO               | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---------------------|-----------------|-----------------|------------------|-----------------|------------------|-------------------|
| <i>Summer</i>       |                 |                 |                  |                 |                  |                   |
| Area                | 3,162.03        | 0.11            | 12.27            | 0.00092         | 0.04             | 0.04              |
| Energy              | 67.18           | 610.73          | 513.01           | 3.66            | 46.42            | 46.42             |
| Mobile              | 1,857.18        | 5,226.49        | 23,937.84        | 122.42          | 159.88           | 147.51            |
| <b>Summer Total</b> | <b>5,086.38</b> | <b>5,837.32</b> | <b>24,463.12</b> | <b>126.08</b>   | <b>206.34</b>    | <b>193.97</b>     |
| <i>Winter</i>       |                 |                 |                  |                 |                  |                   |
| Area                | 3,162.03        | 0.11            | 12.27            | 0.00092         | 0.04             | 0.04              |
| Energy              | 67.18           | 610.73          | 513.01           | 3.66            | 46.42            | 46.42             |
| Mobile              | 1,897.96        | 5,470.36        | 23,399.86        | 116.32          | 160.25           | 147.86            |
| <b>Winter Total</b> | <b>5,127.16</b> | <b>6,081.19</b> | <b>23,925.14</b> | <b>119.99</b>   | <b>206.71</b>    | <b>194.32</b>     |



**Table 4.1-10  
Net Daily Emissions (lbs/day)**

| <b>Source</b>         | <b>ROG</b>    | <b>NO<sub>x</sub></b> | <b>CO</b>     | <b>SO<sub>2</sub></b> | <b>PM<sub>10</sub></b> | <b>PM<sub>2.5</sub></b> |
|-----------------------|---------------|-----------------------|---------------|-----------------------|------------------------|-------------------------|
| <i>Summer</i>         |               |                       |               |                       |                        |                         |
| Existing              | 7,033.40      | 13,687.04             | 53,667.80     | 113.09                | 256.68                 | 239.27                  |
| Proposed              | 5,086.38      | 5,837.32              | 24,463.12     | 126.08                | 206.34                 | 193.97                  |
| Net Emissions         | -1,947.02     | -7,849.72             | -29,204.68    | +12.99                | -50.34                 | -45.30                  |
| <b>Percent Change</b> | <b>-27.68</b> | <b>-57.35</b>         | <b>-54.42</b> | <b>+11.49</b>         | <b>-19.61</b>          | <b>-18.93</b>           |
| <i>Winter</i>         |               |                       |               |                       |                        |                         |
| Existing              | 7,157.50      | 14,404.03             | 51,688.29     | 107.52                | 257.70                 | 240.21                  |
| Proposed              | 5,127.16      | 6,081.19              | 23,925.14     | 119.99                | 206.71                 | 194.32                  |
| Net Emissions         | -2,030.34     | -8,322.84             | -27,763.15    | +12.47                | -50.99                 | -45.89                  |
| <b>Percent Change</b> | <b>-28.37</b> | <b>-57.78</b>         | <b>-53.71</b> | <b>+11.60</b>         | <b>-19.79</b>          | <b>-19.10</b>           |

Based on modeling data, total emissions from total General Plan buildout would on average reduce reactive organic gases (volatile organic compounds) (ROG/VOC) by 27.68 percent in the summer and 28.37 percent in the winter, oxides of nitrogen (NO<sub>x</sub>) by 57.35 percent in the summer and 57.78 percent in the winter, carbon monoxide (CO) by 54.42 percent in the summer and 53.71 percent in the winter, coarse particulate matter (PM<sub>10</sub>) by 19.61 percent in the summer and 19.79 percent in the winter, and fine particulate matter (PM<sub>2.5</sub>) daily by 18.93 percent in the summer and 19.10 percent in the winter. Sulfur Dioxide (SO<sub>2</sub>) is projected to increase by 11.49 percent in the summer and 11.60 percent in the winter; however these increases are nominal and will not exceed the emission threshold. The reduction in total emissions is consistent with the findings of the certified General Plan EIR and impacts will remain less than significant.

#### **Impact 4.1.D**

##### **Expose sensitive receptors to substantial pollutant concentrations**

The proposed General Plan update and revised Zoning Ordinance would not authorize any specific construction; however, future development projects constructed pursuant to General Plan land use policies could potentially expose sensitive receptors to temporary, localized pollutant concentrations in excess of air quality standards, even if the broader region is in attainment. Examples include emissions of fugitive dust and vehicle and machinery exhaust during large-scale grading activities and roadway construction. Under limited circumstances, large-scale construction activities could result in emissions of fugitive dust, nitrogen oxides, and other criteria pollutants that could exceed SCAQMD daily thresholds of significance and thereby could result in a significant impact. Emissions of fugitive dust near sensitive receptors are a primary concern because, unlike gaseous pollutants that quickly rise and affect the upper atmosphere, particulate matter tends to remain close to the ground.

Future construction activities will be subject to routine control measures as required by SCAQMD (Rules 402, 403, 1108, and 1113). It should be noted that SCAQMD guidance indicates that analysis of localized criteria pollutant impacts is voluntary; therefore, future construction projects will be assessed for localized criteria pollutant impacts on a case-by-case basis under the purview of the City. Impacts related to local criteria pollutant emissions will not be significant with implementation of existing regulations and the General Plan policies.

According to the Air Quality and Land Use Handbook, ARB recommends that sensitive land uses not be located within 500 feet of highways or major arterials having average annual daily traffic (AADT) that exceeds 100,000 vehicles. This is due to the concentration of pollutants that accumulate in this proximity to freeways and other major arterials. No non-freeway roadways within the planning area either currently or over the long term are projected to have an AADT that exceeds 100,000 vehicles. Interstate 10 and Interstate 215 currently and will likely continue to both have an AADT that exceeds 100,000. Based on ARB guidelines, a significant impact could occur if the General Plan would permit new residential or other sensitive uses within 500 feet of I-710, I-5, or US-101.

Today, residential land uses do not exist within 500 feet of I-710, I-5, or US-101. Therefore; significant impacts to residents from heavy traffic roadway criteria pollutants would not occur.

### **Toxic Air Contaminants**

Some industrial land uses have the potential to generate substantial toxic air contaminant (TAC) concentrations that could adversely affect sensitive receptors. Such emissions could be produced by a variety of interior processes and outdoor activities that generate emissions of TACs. TACs are air pollutants that may cause or contribute to an increase in deaths or serious illnesses or that may pose a present or potential hazard to human health. Unlike criteria pollutants, there are no levels of exposure to TACs that do not produce adverse health effects. The Tanner Bill requires implementation of risk reduction measures for toxic contaminant releases with cancer risks that are equal to or greater than 25 per million and the SCAQMD has established a TAC emissions cancer risk threshold of equal to or greater than ten per million. For example, common facilities within the District that have a cancer risk of approximately ten per million include forges, refineries, fuel distribution and storage facilities, and heavy plating facilities. Common facilities with a cancer risk of approximately 25 per million or more include aircraft manufacturing, large plating and machining facilities, and chemical manufacturing.

The proposed General Plan and Zoning Ordinance update includes the expansion of commercial and trucking uses and the addition of housing and emergency shelter overlays. Future uses that may be developed within the designated commercial and trucking areas could result in emissions of a variety of toxic air contaminants.

ARB research has documented increased potential health risks for sensitive receptors as the distance to sources of hazardous emissions is reduced. Based on these findings, they have developed guidelines to assist local government agencies in siting new land uses that could be occupied by “sensitive individuals” at a safe distance from such sources. Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals and residential communities (also known as sensitive sites or sensitive land uses).

Since existing and planned industrial land uses that exist make up a majority of the planning area, the City may be affected by any potential substantial industrial emission source that currently exists or may be developed in the future regardless of wind direction. Actual levels of risk can only be determined through site-specific analysis and specialized air pollutant modeling, based on an actual relationship between an industrial emission source and a specific residential site. Such assessments might determine that there are less than significant health risks, or that there could be some significant level of exposure to pollutants that need to be mitigated through siting, site design, or operational restrictions. With implementation of existing regulations that regulate and monitor toxic emitters, potential health impacts to sensitive receptors due to exposure to toxic air contaminants will be less than significant.

### **Carbon Monoxide Hotspots**

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to violate state and federal CO standards at intersections, even if the broader Basin is in attainment for federal and state levels. In general, the California Department of Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) recommend analysis of CO hotspots when a project increases the number of vehicles operating in cold start mode by more than two percent, increases traffic volumes by more than five percent, or worsens average traffic speeds. In addition, CO hotspots are typically associated with intersections with lower ratings of Level of Services (LOS), such as LOS E or F, which indicate high congestion and high amounts of idling vehicles that have the potential to generate a CO hotspot. The following intersections operate at LOS E or F under current General Plan 2030 Conditions without improvements which was analyzed in the certified Program EIR:

- 
- Alameda Street at Vernon Avenue – West (LOS F in morning and evening peak hours)
  - Alameda Street at Vernon Avenue – East (LOS F in morning and evening peak hours)
  - Alameda Street at 55th Street – West (LOS F in morning and evening peak hours)
  - Alameda Street at 55th Street – East (LOS F in evening peak hour)

- Santa Fe Avenue at 25th/26th Street (LOS E in morning and LOS F in evening peak hours)
- Santa Fe Avenue at 38th Street (LOS F in morning and evening peak hours)
- Santa Fe Avenue at Vernon Avenue (LOS F in morning and evening peak hours)
- Santa Fe Avenue at Vernon Avenue/Pacific Boulevard (LOS F in morning and evening peak hours)
- Soto Street at 26th Street (LOS F in morning and evening peak hours)
- Soto Street at Bandini Boulevard (LOS F in morning and evening peak hours)
- Soto Street at Vernon Avenue (LOS E in morning and LOS F in evening peak hours)
- Soto Street at Leonis Boulevard (LOS E in morning peak hour)
- Soto Street at Fruitland Avenue (LOS E in evening peak hour)
- Boyle Avenue at Slauson Avenue (LOS F in morning and evening peak hours)
- Downey Road at Washington Boulevard (LOS E in morning and LOS F in evening peak hours)
- Downey Road at Bandini Boulevard (LOS E in morning and LOS F in evening peak hour)
- Downey Road at Slauson Avenue (LOS F in morning and evening peak hours)
- Atlantic Boulevard at Bandini Boulevard (LOS F in morning and evening peak hours)
- Atlantic Boulevard at District Boulevard (LOS E in morning and LOS F in evening peak hours)

The following intersections are anticipated to operate at LOS E or F in either or both of the morning or evening peak hours with the proposed General Plan update and revised Zoning Ordinance without improvements.

- Alameda Street at Vernon Avenue – West (LOS F in morning and evening peak hours)
- Alameda Street at Vernon Avenue – East (LOS F in morning and evening peak hours)
- Alameda Street at 55th Street – West (LOS F in morning and evening peak hours)
- Alameda Street at 55th Street – East (LOS F in evening peak hour)
- Santa Fe Avenue at 25th/26th Street (LOS E in morning and LOS F in evening peak hours)
- Santa Fe Avenue at 38th Street (LOS F in morning and evening peak hours)
- Santa Fe Avenue at Vernon Avenue (LOS F in morning and evening peak hours)
- Santa Fe Avenue at Vernon Avenue/Pacific Boulevard (LOS F in morning and evening peak hours)
- Soto Street at 26th Street (LOS F in morning and evening peak hours)
- Soto Street at Bandini Boulevard (LOS F in morning and evening peak hours)
- Soto Street at Vernon Avenue (LOS E in morning and LOS F in evening peak hours)
- Soto Street at Leonis Boulevard (LOS E in morning peak hour)
- Soto Street at Fruitland Avenue (LOS E in evening peak hour)

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- Boyle Avenue at Slauson Avenue (LOS F in morning and evening peak hours)
- Downey Road at Washington Boulevard (LOS E in morning and LOS F in evening peak hours)
- Downey Road at Bandini Boulevard (LOS F in morning and evening peak hours)
- Downey Road at Slauson Avenue (LOS F in morning and evening peak hours)
- Atlantic Boulevard at Bandini Boulevard (LOS F in morning and evening peak hours)
- Atlantic Boulevard at District Boulevard (LOS E in morning and LOS F in evening peak hours)

All intersections determined to operate at LOS E or F in the certified Program EIR still operate at the same LOS except for one. Downey Road at Bandini Boulevard was projected to operate at LOS E in the morning peak hour in the certified Program EIR. With the proposed General Plan update and the revised Zoning Ordinance, Downey Road at Bandini Boulevard is projected to operate at LOS F in the morning peak hour. As discussed in the traffic analysis prepared by Kunzman Associates, the above intersections are not significantly impacted by the proposed General Plan update and revised Zoning Ordinance.

Future development projects will be screened and analyzed pursuant to the CO Protocol to determine if a CO hotspot may occur at congested intersections. Mitigation may be required, if necessary, to alleviate traffic congestion and minimize the hotspot potential. Other mitigation could include operational restrictions on future development.

### **Greenhouse Gases**

Greenhouse gas emissions were analyzed in the Program EIR and found to reduce with implementation of the 2030 General Plan. As noted in the air quality analysis above, the Program EIR analyzed a baseline year of 2007 and proposed General Plan build out year 2030.

The analysis reflects the change in GHG emissions from existing 2012 baseline conditions and the proposed 2035 General Plan buildout. The analysis utilizes guidance provided in the South Coast Air Quality Management District (SCAQMD) 1993 California Environmental Quality Act (CEQA) Air Quality handbook as amended and supplemented. The California Emissions Estimator Model (CalEEMod) v 2013.2.2 was used to forecast emissions levels for baseline and project operational activity. CalEEMod default rates for general light industrial use were used to model air quality and greenhouse gas emissions with the exception of vehicle fleet mix. The recommended fleet mix (78.6 percent passenger cars, 8 percent light-duty trucks, 3.9 percent medium heavy-duty trucks, and 9.5 percent heavy heavy-duty trucks) in the Fontana Truck Trip Study was used.<sup>xi</sup>

Development that occurs as a result of the implementation of the proposed General Plan and zoning ordinance update will include activities that emit greenhouse gas emissions over the short and long term. While one project could not be said to

cause global climate change, individual projects contribute cumulatively to greenhouse gas emissions that result in climate change. Individual projects will have prepared a greenhouse gas emissions inventory, to determine if individual projects exceed applicable screening or impact thresholds and would thus potentially contribute substantially to climate change and associated impacts. A summary of short- and long-term emissions and the analysis for each are included below.

### **Short-Term Emissions**

Future development projects will result in short-term greenhouse gas emissions from construction. Greenhouse gas emissions will be released by equipment used for demolition, grading, paving, and other building construction activities. GHG emissions will also result from worker and vendor trips to and from project sites and from demolition and soil hauling trips. Construction activities are short-term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. Because of this difference, SCAQMD recommends in its draft threshold to amortize construction emissions over a 30-year operational lifetime. This normalizes construction emissions so that they can be grouped with operational emissions in order to generate a precise project GHG inventory.

Typically, construction-related GHG emissions contribute unsubstantially (less than one percent) to a project's annual greenhouse gas emissions inventory and mitigation is not effective in reducing a project's overall contribution to climate change. Implementation of AB32 and SB375 through California Air Resources Board's (ARB) Scoping Plan and SCAG's RTP/SCS are designed to achieve the required reduction in greenhouse gas emissions. Analysis of the General Plan's non-interference and support of these plans is presented below. With implementation of existing policies and regulations, short-term climate change impacts due to future construction activities will not be significant.

### **Long-Term Emissions**

Future development projects will result in continuous GHG emissions from mobile, area, and operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO<sub>2</sub>, with minor emissions of CH<sub>4</sub> and N<sub>2</sub>O. The most significant GHG emission from natural gas usage will be methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO<sub>2</sub> emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

Table 4.1-11 (Existing 2012 Land Use Baseline Greenhouse Gas Emissions) summarizes current operational annual greenhouse gas emissions for an entirely light industrial city except the vacant parcels. Table 4.1-12 (2035 General Plan Buildout Total Greenhouse Gas Emissions) summarizes the anticipated total

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operational annual GHG emissions based on light industrial buildout of the City including the vacant parcels. This represents a worst-case complete build-out pursuant to the General Plan based on the proposed land use plan. Table 4.1-13 (Net Greenhouse Gas Emissions) summarizes net annual greenhouse gas emissions. As shown in Table 4.1-13, total greenhouse gas emissions will decrease with implementation of the proposed project.

**Table 4.1-11  
Existing 2012 Land Use Baseline Greenhouse Gas Emissions**

| Source       | GHG Emissions (MT/YR) |                 |              |                     |
|--------------|-----------------------|-----------------|--------------|---------------------|
|              | CO2                   | CH4             | N2O          | TOTAL*              |
| Area         | 2.82                  | 0.008           | 0.00         | 3.00                |
| Energy       | 506,746.38            | 20.23           | 5.83         | 508,977.73          |
| Mobile       | 1,217,929.89          | 55.37           | 0.00         | 1,219,092.58        |
| Waste        | 28,649.99             | 1,693.17        | 0.00         | 64,206.49           |
| Water        | 106,428.56            | 862.19          | 21.18        | 131,101.73          |
| <b>Total</b> | <b>1,859,757.65</b>   | <b>2,630.96</b> | <b>27.01</b> | <b>1,923,381.54</b> |

**Table 4.1-12  
2035 General Plan Buildout Total Greenhouse Gas Emissions**

| Source       | GHG Emissions (MT/YR) |                 |              |                     |
|--------------|-----------------------|-----------------|--------------|---------------------|
|              | CO2                   | CH4             | N2O          | TOTAL*              |
| Area         | 3.00                  | 0.008           | 0.00         | 3.16                |
| Energy       | 538,163.49            | 21.49           | 6.19         | 540,533.18          |
| Mobile       | 1,049,535.68          | 27.08           | 0.00         | 1,050,104.35        |
| Waste        | 30,426.31             | 1,798.14        | 0.00         | 68,187.32           |
| Water        | 113,027.17            | 915.65          | 22.50        | 139,230.08          |
| <b>Total</b> | <b>1,731,155.64</b>   | <b>2,762.36</b> | <b>28.69</b> | <b>1,798,058.09</b> |

**Table 4.1-13  
Net Greenhouse Gas Emissions**

| Source               | GHG Emissions (MT/YR) |                |              |                    |
|----------------------|-----------------------|----------------|--------------|--------------------|
|                      | CO2                   | CH4            | N2O          | TOTAL*             |
| Existing             | 1,859,757.65          | 2,630.96       | 27.01        | 1,923,381.54       |
| Proposed             | 1,731,155.64          | 2,762.36       | 28.69        | 1,798,058.09       |
| <b>Net Emissions</b> | <b>-128,602.01</b>    | <b>-131.40</b> | <b>-1.68</b> | <b>-125,323.45</b> |

### California Air Resources Board Scoping Plan (AB32)

CARB's Scoping Plan identifies strategies to reduce California's greenhouse gas emissions in support of AB32. Many of the strategies identified in the Scoping Plan are not applicable at the General Plan or project-level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project. Finally, while some measures are not

directly applicable, the project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms. These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. The City of Vernon has 150 qualifying heavy industrial facilities that are to be subject to these state requirements, and the proposed General Plan and zoning ordinance Update would not interfere with their implementation.
2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals. This is not applicable as this is a statewide measure establishing vehicle emissions standards.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities). The General Plan promotes energy efficient building design, as well as implementation of existing building and other codes regulating minimum energy, and water efficiency consistent with 2011 CALGREEN requirements and would thus be consistent and not interfere with this program.
4. **Renewables Portfolio Standards.** Achieve 33 percent renewable energy mix statewide by 2020. This establishes the minimum statewide renewable energy mix and is not applicable at a City level or below for implementation. The proposed General Plan and zoning ordinance update would not interfere with the implementation of this program.
5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard. This is not applicable to a City as this establishes reduced carbon intensity of transportation fuels.
6. **Regional Transportation-Related Greenhouse Gas Targets.** Develop regional greenhouse gas emissions reduction targets for passenger vehicles. As is detailed following, the proposed General Plan and zoning ordinance update would potentially conflict with and would not support the implementation of SCAG's RTP/SCS to achieve the required GHG reduction goals by 2020 and 2035 based on an inconsistency with growth projections.

The proposed General Plan and zoning ordinance update includes policies to reduce vehicle miles traveled by encouraging alternative modes of transportation.

- 7. Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures. This is not applicable to a City as this identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
- 8. Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While the proposed General Plan and zoning ordinance update may result in facilities such as distribution warehouses that are associated with goods movement, these measures are yet to be implemented and will be voluntary. The proposed General Plan and zoning ordinance update would not interfere with their eventual implementation.
- 9. Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs. Sets goal for use of solar systems throughout the state. The proposed General Plan and zoning ordinance update would not interfere with but instead would directly support installation of alternative energy sources through its policies and programs.
- 10. Medium- and Heavy-Duty Vehicles.** Adopt medium-duty (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010. Future, yet to be determined improvements, includes hybridization of MD and HD trucks. The proposed General Plan and zoning ordinance update may result in development of industrial uses that utilize large MD and HD truck fleets. These potential future developments would be required to have their fleet equipment be consistent with the current applicable efficiency measures at the time of operation. The proposed General Plan and zoning ordinance update would not interfere with implementation of this program.
- 11. Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries. These measures are applicable to large industrial facilities (> 500,000 MTCO<sub>2</sub>E/YR) and other intensive uses such as refineries. If a qualifying heavy industrial facility would be located in the City, it would be subject to these state

requirements; the proposed General Plan and zoning ordinance update would not interfere with their implementation.

12. **High Speed Rail.** Support implementation of a high speed rail system. The proposed General Plan and zoning ordinance update would not interfere with implementation of this program.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The General Plan promotes energy efficient building design as well as implementation of existing building and other codes regulating minimum energy, and water efficiency consistent with 2011 CALGREEN requirements and would thus be consistent and not interfere with this program.
14. **High Global Warming Potential Gases.** Adopt measures to reduce high global warming potential gases. The proposed General Plan and zoning ordinance update would not directly result in generation of high global warming potential gases, and would not interfere with implementation of any future changes in air conditioning, fire protection suppressant, and other emission requirements.
15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling to move toward zero-waste. The proposed General Plan and zoning ordinance update is consistent since implementing development will be required to recycle a minimum of 50 percent from construction activities and warehouse operations per state requirements.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million MTCO<sub>2</sub>E/YR. This is not applicable as the City does not contain any areas defined as forest.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water. The proposed General Plan and zoning ordinance update is consistent since implementing development will include use of low-flow fixtures and water efficient landscaping per state requirements.
18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. The proposed General Plan and zoning ordinance update does not contain any agricultural land use designations, and any policies related to agriculture land uses would not be applicable.

As summarized above, the proposed General Plan and zoning ordinance update would not conflict with any of the other provisions of the Scoping Plan. The proposed General Plan and zoning ordinance update in fact supports four of the

action categories through energy efficiency, green building, and water conservation through these proposed and current policies:

### **GOAL R-1**

Conserve and protect the region's water and energy resources.

POLICY R-1.1: Encourage water conservation and the use of recycled water in new developments and by all industries.

POLICY R-1.2: Support the use of energy-saving designs and equipment in all new development and reconstruction projects.

### **Consistency with Applicable Plans, Policies, or Regulations**

The underlying land use designations of the city will remain industrial as analyzed in the certified General Plan EIR. The proposed Overlay Zones merely provide opportunities for more flexible uses as the city evolves, and does not change the underlying land use or intent of the General Plan. As the underlying land use designation remains industrial and has not changed, the proposed project will remain consistent with regional plans, including efforts to reduce regional and statewide greenhouse gas emissions considering current land use plans are considered during preparation of regional plans such as the RTP/SCS. In addition, as discussed above, total greenhouse gas emissions would decrease with implementation of the proposed project. Therefore, compliance with SCAQMD regulations is consistent with the findings of the certified General Plan EIR and no additional impacts will result.

### ***Mitigation Measures***

Impact will be less than significant at the programmatic level and no mitigation is required.

### ***References***

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<sup>i</sup> Data are measured at SCAQMD monitoring station 087, Central Los Angeles, located at 1630 N. Main Street, Building 3, Los Angeles, California

<sup>ii</sup> California Natural Resources Agency. 2009 California Climate Adaptation Strategy

<sup>iii</sup> Global warming potential (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 which compares the gas being measured to carbon dioxide (whose GWP is by definition 1). GWP is based on a number of factors, including the heat-absorbing ability of each gas and the decay rate of each gas relative to that of carbon dioxide. The higher the GWP, the more impact the gas has on global warming. The GWP measures in this report are based on a 100-year time horizon

<sup>iv</sup> California Air Resources Board. Climate Change Scoping Plan. December 2008

<sup>v</sup> California Air Resources Board. AB 32 Climate Change, Scoping Plan Progress Report. September 2010

<sup>vi</sup> California Air Resources Board. Cap-and-Trade. <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm> [June 2013]

- vii California Climate Action Team. Biennial Report. April 2010
- viii Southern California Association of Governments. Senate Bill 3.75 Fact Sheet. [http://www.scag.ca.gov/factsheets/pdf/2009/SCAG\\_SB375\\_Factsheet.pdf](http://www.scag.ca.gov/factsheets/pdf/2009/SCAG_SB375_Factsheet.pdf) [June 2013]
- ix California Building Standards Commission. California Code of Regulations Title 24. California Green Building Standards Code. 2010
- x City of Vernon. Green Vernon. <http://cityofvernon.org/green-vernon>. June 2013
- xi Transportation Engineering and Planning, Inc. City of Fontana Truck Trip Generation Study. August 2003.





## **Hazards and Hazardous Materials 4.2**

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This section of the Supplemental EIR examines potential impacts associated with the continued presence of hazardous materials in Vernon, and whether any existing hazardous materials sites pose any potentially significant impacts to future development permitted due to changes to the General Plan and the Zoning Code and associated changes to the certified Program EIR. The Initial Study (Appendix A) indicated that potential impacts relative to airports, emergency response, and wildfires are less than significant.

### ***Environmental Setting***

As an exclusively industrial city, Vernon is home to many businesses that use, manufacture, store, recycle, and transport hazardous materials. According to the Los Angeles County Fire Department, the term “hazardous materials” includes any material labeled as toxic, poisonous, corrosive, flammable, combustible, or as an irritant.<sup>1</sup>

### **Monitoring Hazardous Materials in Vernon**

The certified Program EIR summarizes Vernon Environmental Health Department procedures and responsibilities related to hazardous materials. Health Department staff determines whether hazardous materials are to be stored on site and takes the appropriate measures if applicable. The Department also conducts annual inspections to ensure that businesses are complying with their permit terms and requires these businesses to place visible placards identifying categories of materials stored.

### **Environmental Health Department and Fire Department**

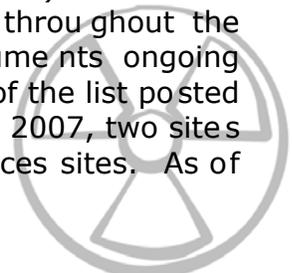
The Environmental Health Department operates several programs to guard against the public health risks associated with the use, manufacture, and storing of hazardous materials by businesses in Vernon as identified in the Program EIR. In addition, the Vernon Fire Department maintains four stations in the City with equipment and staffing as identified in the Program EIR.

### ***Regulatory Framework***

Regulatory framework was discussed in the certified Program EIR. The following includes additional background and regulatory information relevant to the Planning Area.

### **Known Hazardous Wastes and Substances Sites**

The State of California Department of Toxic Substances Control (DTSC) maintains a list of known hazardous wastes and hazardous substances sites throughout the state. This list, commonly referred to as the Cortese List, documents ongoing actions to remediate contaminated sites. According to the version of the list posted on DTSC’s website when the certified Program EIR was prepared in 2007, two sites in Vernon were identified as known hazardous wastes and substances sites. As of



May 2014, six sites in Vernon were identified as known hazardous wastes and substances sites subject to remediation, with the following status:<sup>ii</sup>

**Table 4.2-5  
Cortese List Sites**

| Name                              | Location                        | Site Type              | Status                   |
|-----------------------------------|---------------------------------|------------------------|--------------------------|
| ADD                               | 2306 E. 38 <sup>th</sup> Str.   | Hazardous Waste - RCRA | Undergoing Closure       |
| California Environmental Services | 3691 Bandini Blvd.              | Hazardous Waste - RCRA | Closed                   |
| ChemClear of Los Angeles          | 3165 E. Slauson Avenue          | Hazardous Waste - RCRA | Closed                   |
| D/K Environmental                 | 3650 E. 26 <sup>th</sup> Street | Hazardous Waste - RCRA | Operating Permit         |
| DC Industrial Services            | 4626 E. 48 <sup>th</sup> Street | Hazardous Waste        | Protective Filer         |
| Exide Technologies                | 2700 S. Indiana Street          | Hazardous Waste - RCRA | Interim Operating Permit |

CERCLIS and the National Priorities List

The EPA also maintains the CERCLIS Comprehensive Environmental Response Compensation and Liability Information System list. This list contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The NPL is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. The HRS uses a structured analysis approach to scoring sites. This approach assigns numerical values to factors that relate to risk based on conditions at the site. The factors are grouped into three categories:

- likelihood that a site has released or has the potential to release hazardous substances into the environment;
- characteristics of the waste (e.g. toxicity and waste quantity); and
- people or sensitive environments (targets) affected by the release.

Four pathways can be scored under the HRS:

- ground water migration (drinking water);
- surface water migration (drinking water, human food chain, sensitive environments);
- soil exposure (resident population, nearby population, sensitive environments); and
- air migration (population, sensitive environments).

After scores are calculated for one or more pathways, they are combined using a root-mean-square equation to determine the overall site score. Listing on the NPL makes a site eligible for funding of long-term site remediation. The U.S.

Environmental Protection Agency (USEPA) is responsible for identifying and pursuing remediation of highly contaminated hazardous waste sites. Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA, and also referred to as Superfund), the USEPA investigates abandoned hazardous waste sites, pursues appropriate clean up, and compels responsible parties to perform clean ups or reimburse the government for EPA-led remediation. The Program EIR identified five sites that were considered for the USEPA’s Superfund National Priorities List but not added. As of June 2013, six sites in Vernon were referenced on the USEPA’s Superfund National Priorities List (NPL) website are as follows:<sup>iii</sup>

**Table 4.2-6  
Listed CERCLA Sites**

| Name                                 | NPL (National Priorities List) Status |
|--------------------------------------|---------------------------------------|
| ADD Truck Site                       | Non-NPL                               |
| ADD Facility Site                    | Non-NPL                               |
| Modern Pattern and Foundry Co., Inc. | Non-NPL                               |
| NI Industries                        | Non-NPL                               |
| Stauffer Chemical Company            | Non-NPL                               |
| Globe Union Incorporated             | Non-NPL                               |

The Non-NPL status indicates that the sites were investigated for placement on the National Priorities List of the most hazardous sites identified for long-term clean up, but did not warrant such listing.

RCRA and Hazardous Waste Generators

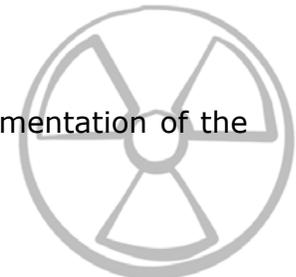
The Resources Conservation and Recovery Act (RCRA) is a federal law that regulates the generation, management, and transportation of waste material. Hazardous waste management, specifically, including the following:

- *Treatment:* Any process that changes the physical or chemical composition of the waste to make it less harmful to the environment.
- *Storage:* The holding of hazardous waste for a temporary period of time.
- *Disposal:* The permanent final location of the hazardous waste into or on the land.

RCRA approaches hazardous wastes from a cradle-to-grave approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal. Hazardous waste generators are required to report use or transport of hazardous wastes to the EPA

***Thresholds for Determining Significance***

For the purpose of this EIR, a significant impact will occur if implementation of the updated General Plan and revised Zoning Ordinance would:



- A. Create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials;
- B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; and/or
- D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

### ***Environmental Impact***

#### **Impacts 4.2.A and 4.2.B**

#### **Use, Transport, and Disposal of Hazardous Materials and Wastes**

With the exception of a limited number of vacant lots, Vernon is completely built out. Virtually all existing development consists of industrial businesses. According to City of Vernon Environmental Health Department staff, in any one year, between 40 and 60 percent of all businesses in Vernon either store, use, or manufacture hazardous materials to the extent that a City hazardous materials permit is required.

The updated General Plan and revised Zoning Ordinance provide for Vernon to remain a primarily industrial city with limited housing. All new businesses established in the City over the lifetime of the General Plan update are anticipated to be similar to those which exist today. The proposed expanded Commercial Overlay District along Santa Fe Avenue, Pacific Boulevard, Atlantic Boulevard, and Slauson Avenue, and portions of Soto Street will allow for limited commercial uses. If these areas begin to transition into commercial areas, the use, transport, and disposal in the area would likely reduce because commercial uses generally use few and less hazardous materials than industrial uses, thus reducing potential impacts when compared to those analyzed in the certified Program EIR. In general, however, the types and mix of uses will remain relatively the same in the Planning Area as those anticipated under the certified Program EIR. The proposed project will also establish and apply a new Truck and Freight Terminal Overlay. The Truck and Freight Terminal Overlay is designed to focus truck and freight terminals into areas to minimize impacts on other uses. Typical freight terminals distribute consumer goods and would not increase the amount of hazardous materials transported beyond those supported by the broader Industrial land use designation or the General Industrial (I) zoning district analyzed in the certified Program EIR. Truck terminals are utilized for the storage, maintenance, repair, and/or servicing of heavy-duty vehicles such as trucks and buses. Hazardous materials associated with these operations are common, such as motor oil, diesel fuel, and other

automotive chemicals and will not be outside the scope of the analysis provided in the certified Program EIR.

Pursuant to City regulations, all new businesses will be subject to the City's mandatory occupancy inspection process, as detailed in the certified Program EIR, that includes documentation of current or proposed hazardous materials storage, the requirement of hazardous materials permits as applicable, and inspection by Environmental Health Department staff to ensure compliance. These regulations ensure that all uses are assessed for the potential risk of upset related to the use, transport, and disposal of hazardous materials and are applicable to the proposed General Plan and Zoning Ordinance updates in the same manner as was applicable under the analysis provided in the certified Program EIR.

The following policies and actions are included in the General Plan Safety Element and Implementation Program and listed in the certified Program EIR as reducing impacts related to hazardous materials:

**POLICY S-2.2:** Continue to require every business to maintain on site a material safety data sheet for each chemical or other hazardous material stored at the business, and to provide a list of the chemicals or other hazardous materials, and the locations where they are stored, to the Environmental Health Department for incorporating into Environmental Health and Fire Department records. The Fire Department and the Environmental Health Department will maintain the lists for all Vernon businesses in such a manner that they are readily available to emergency response personnel to review during emergencies.

**Action S-7: Hazardous Materials Monitoring Program (Ordinance 961).**

Continue to implement the Hazardous Materials Monitoring Program that monitors establishments where hazardous materials are produced, stored, handled, disposed of, treated, emitted, discharged, or recycled. The program also directs and coordinates emergency response in the event of releases of hazardous materials.

Agency/Department: Environmental Health and Fire Department

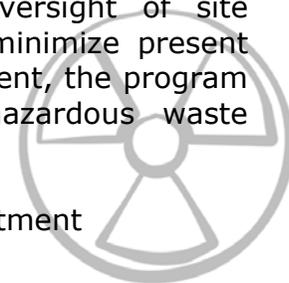
Funding Source: General Fund; Program Fees

Time Frame: Ongoing

Related Policies: S-2.1, S-2.2, S-3.2

**Action S-8: Hazardous Waste.** Continue to implement activities to assure that hazardous wastes generated by Vernon businesses are handled and disposed according to federal, state, and local regulations. Assist businesses and consultants in preparation and oversight of site assessments and mitigation activities. In order to minimize present and future threats to human health and the environment, the program actively promotes waste reduction options for hazardous waste generators.

Agency/Department: Environmental Health Department



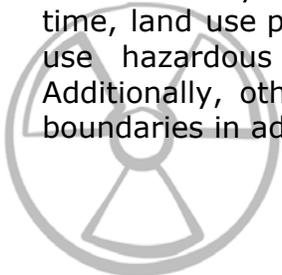
Funding Source: Permit Fees  
Time Frame: Ongoing  
Related Policies: S-2.1, S-2.2, S-3.2

Adoption and long-term implementation of the updated General Plan and revised Zoning Ordinance will not change current land use practices or regulatory requirements as analyzed under the certified Program EIR; industrial businesses that maintain hazardous materials on site will continue to represent a high percentage of the business activity in Vernon and will be subject to local, state, and federal regulations. Furthermore, the City will continue the established practice of issuing permits for and monitoring the use of hazardous materials per Ordinance No. 961 as identified in the certified Program EIR. The City of Vernon Fire Department will maintain its hazardous materials response unit and capabilities to provide a high degree of response and protection. Thus, the project will not create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials, nor will the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment beyond that analyzed in the certified Program EIR. This is because use, transport and disposal of hazardous materials will not appreciably increase and the same mandatory requirements noted in the certified Program EIR related to hazardous materials remain applicable. Furthermore, the certified Program EIR included Mitigation Measures H-1 and H-2 to ensure the continued review, permitting, and budgeting for business involvement with hazardous materials and wastes. Impacts will be equal to or less than those determined in the certified Program EIR, remaining **less than significant with mitigation incorporated** and implementation of regulatory requirements and the policies of the General Plan.

### Impact 4.2.C

#### Hazardous Materials near Sensitive Receptors

Schools, hospitals, and residential assisted care facilities can be difficult to evacuate during a hazardous materials emergency. Furthermore, the young, elderly, and sick are more susceptible to health conditions related to exposure to hazardous materials. As such, these uses could potentially be impacted by a hazardous materials release. A single school exists in Vernon: Vernon City Elementary School (Los Angeles Unified School District), located at 2360 E. Vernon Avenue. This public school provides elementary education for students in grades kindergarten through 5 and operates on a traditional September through June school year. Vernon City Elementary is one of the oldest schools in the district, having opened its doors in 1928, 23 years after Vernon incorporated as an industrial city. The school is surrounded by industrial businesses and has been for almost 80 years. During this time, land use policy and zoning regulations have allowed businesses that store or use hazardous materials to locate within one-quarter mile of the school. Additionally, other schools are located in close proximity to the City of Vernon's boundaries in adjacent cities.



The updated General Plan and revised Zoning Ordinance will increase the potential for commercial development and truck and freight facilities when compared to the existing General Plan. While this project will not directly involve any activity that emits hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste, policies and land use regulations will allow businesses which could have such characteristics to locate within one-quarter mile of schools, hospitals, residential, and residential assisted care facilities. These sensitive uses are located both within the City and near the City's boundaries in adjacent cities. In addition to state and federal requirements for management of hazardous materials and wastes, the following General Plan Safety Element policies further support the protection of residents and workers from risk of upset:

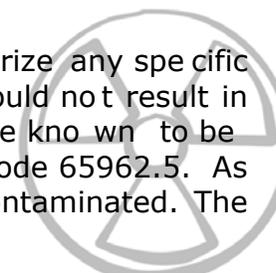
**Policy S-2.1:** Continue to support and encourage State efforts to identify existing or previously existing hazardous waste generators or disposal sites in the City of Vernon.

**Policy S-2.2:** Continue to require every business to maintain a list of the chemicals and other hazardous materials used or stored on site in accordance with appropriate material safety data sheets and otherwise in accordance with law, and to provide that list to the Fire Department and Environmental Health Department. Require that the Fire Department and Environmental Health Department maintain a list of such materials and the location where they are stored or used to permit emergency personnel to respond appropriately, if required.

Although the project includes changes in potential land use development over the long-term, these changes do not include a substantial increase in the use, transport, or disposal of hazardous materials and thus will not increase risk of upset in vicinity of schools and other sensitive receptors beyond that analyzed in the certified Program EIR. Local, state, and federal regulations related to hazardous materials as noted in the certified Program EIR remain applicable to the project and will minimize impacts to sensitive receptors by requiring proper handling, tracking, and disposal of hazardous materials and wastes. The City of Vernon Environmental Health Department will continue to regulate businesses that store or use hazardous materials. Furthermore, the certified Program EIR included Mitigation Measures H-1 and H-2 to ensure the continued review, permitting, and budgeting for business involvement with hazardous materials and wastes. Impacts will be equal to or less than those determined in the certified Program EIR, remaining **less than significant with mitigation incorporation** and implementation of regulatory requirements and the policies of the General Plan.

#### **Impact 4.2.D Hazardous Materials Sites**

Because the General Plan update allows for but does not authorize any specific development project or any other land use altering proposal, it would not result in any direct impacts involving a development project on a site known to be contaminated and reported as such under California Government Code 65962.5. As noted above, the Cortese List identifies six sites in Vernon as contaminated. The



proposed project does not involve any development activity. Thus, no direct impact with regard to these sites will result from the project. Any future development application pursuant to land use policy could propose reuse of either one of the identified sites. However, any such activity will require environmental review pursuant to CEQA, including assessment for site contamination and possible site remediation prior to reuse. The proposed project does not include any policies that will change existing review procedures or regulatory requirements involving contaminated sites. Impacts will be equal to or less than those determined in the certified Program EIR, remaining **less than significant** with implementation of regulatory requirements and the policies of the General Plan.

### ***Mitigation Measures***

With regard to potential development on a contaminated site, impact will be less than significant, and no mitigation is required as stated in the Program EIR.

With regard to the use and transport of hazardous materials and the siting of activities involving the use of hazardous materials in close proximity to schools, hospitals, residential assisted care facilities, or similar uses, the following mitigation was required by the certified Program EIR and remains applicable to the proposed project:

**MITIGATION  
H-1**

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The City will continue to implement the provisions of City ordinances to provide for the business occupancy inspection program and the regular inspection of businesses involved in the production, storage, handling, disposal, treatment, emission, discharge, or recycling of hazardous materials. Such activity will be funded as part of the City's annual budgeting process, special tax, and/or will be funded as a fee program.

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**MITIGATION  
H-2**

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At the time any new or revised Hazardous Material Business application for a new business or activity is received for a location within one-quarter mile of any residence, school, hospital, residential assisted care facility, or similar use (sensitive uses may be located within the City or outside its boundaries), or greater distance as may be determined by the Director of Environmental Health Department for particular business types, the City will review the application and determine whether a Health Risk Assessment (HRA) is required pursuant to State law and/or City Ordinance 961 to address any potential impacts to these uses. If an HRA is deemed appropriate and further, if the HRA identifies potential risks associated with the business activity relative to proximity to the residence, school, hospital, residential assisted care facility or similar use, the City shall ensure that action is taken to address such risk. The action may consist of:

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- Denying the application within the limits of the Code of the City of Vernon, or
  - Requiring the business operator to incorporate preventative or ameliorative measures into the business processes or activities to lower the risk to acceptable levels, as set forth by federal or state regulations and policies.
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### ***Level of Impact after Mitigation***

Impacts will be less than significant at the programmatic level with implementation of mitigation, General Plan policies, and regulatory requirements.

### ***References***

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<sup>i</sup> <http://fire.lacounty.org>. July 2007.

<sup>ii</sup>

[http://www.envirostor.dtsc.ca.gov/public/search.asp?CMD=search&city=Vernon&zip=&county=Los+Angeles&case\\_number=&business\\_name=&operating=True&post\\_closure=True&non\\_operating=True](http://www.envirostor.dtsc.ca.gov/public/search.asp?CMD=search&city=Vernon&zip=&county=Los+Angeles&case_number=&business_name=&operating=True&post_closure=True&non_operating=True). May 2014.

<sup>iii</sup> United States Environmental Protection Agency. Superfund Site Information: Vernon. <http://cfpub.epa.gov/superfund/sites/srchsites.cfm> [June 2013]





## Noise 4.3

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This section of the Supplemental EIR examines potential impacts associated with noise in Vernon and whether future development permitted due to changes to the General Plan and Zoning Code would increase those impacts analyzed in the certified General Plan EIR. The Initial Study (Appendix A) indicated that there are potential impacts related to permanent and temporary noise and vibration.

### ***Environmental Setting***

Noise within the Vernon planning area is comprised of cumulative noise generated by transportation activities and stationary sources. Transportation noise refers to noise from automobile use, trucking, and rail operations. Non-transportation noise typically refers to noise from stationary sources such as industrial machinery, air conditioning systems, compressors, and outdoor industrial activities. Regardless of the type of noise, noise levels are highest near their source and decrease with distance.

### **Noise Metrics and Standards**

Noise is most often defined as unwanted, excessive, or irksome sound. Sound - and noise - consists of energy waves that people receive and interpret. There are three properties of noise: the amplitude and amplitude variation of the acoustical wave (loudness), the frequency (pitch), and the duration of the noise.

Despite the ability to measure sound, human perceptibility is subjective, and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). In order to factor in the subjectivity of sound to the human ear and the variation of sensitivity to different frequencies of sound, the A-weighted sound pressure level, or dB(A), is the scale of measurement that is most useful in community noise measurement. This sound level is measured in decibels to provide a scale with the range and characteristics most consistent with that of peoples' sensitivity to sounds. The A-weighted sound level of traffic and other long-term noise-producing activities within and around a community varies considerably with time. Measurements of this varying noise level are accomplished by recording values of the A-weighted level during representative periods within a specified portion of the day.

Because a given level of noise may be more or less tolerable depending on the duration of exposure, other measures of noise exposure have been developed. Federal and state agencies have established noise and land use compatibility guidelines that use averaging approaches to noise measurement. The State Department of Aeronautics and the California Commission on Housing and Community Development have adopted the community noise equivalent level (CNEL). To account for increased human sensitivity at night, this measure weights the average noise level at night by adding five dB to the measurement during the

7:00 P.M. to 10:00 P.M. time period and an additional ten dB on noise measured during the 10:00 P.M. to 7:00 A.M. time period. The City of Vernon utilizes the CNEL measurement scale for its community noise/land use compatibility standards.

In recognition of the industrial nature of the community, the current General Plan establishes 75 CNEL as the acceptable exterior ambient noise level for land use planning purposes. The current Zoning Ordinance establishes allowable exterior noise for all lots in the City of 75 dBA, except for lots located within one tenth (1/10) of a mile on any residence or school located in Vernon or abutting communities, which lots are limited to 65 dBA between 7:00 A.M. and 10:00 P.M. and 60 dBA between 10:00 P.M. and 7:00 A.M..

#### **Existing Noise Conditions**

Generalized ambient 24-hour community noise conditions frequently are illustrated using noise contour maps. Similar to a topographic map, a noise contour map shows variations in conditions within a specific geographic area. In Vernon, the most significant noise-producing activity involves the transportation systems. This noise source consists of several elements: arterial roadways, Interstate 710, and train operations on rail lines and at rail yards. Hence, the noise contours show higher levels along these transportation routes and near the rail yards. Exhibit 4.3-1 (2007 Noise Contours) depicts the noise contours within the planning area during preparation of the certified EIR.

No part of Vernon is located within an area covered by an airport land use plan. The nearest airport is in the city of Compton, approximately eight miles to the south. The certified EIR determined that the adoption and implementation of the General Plan update would not result in airport noise impacts on people residing or working within the Planning Area. Adoption and implementation of the focused General Plan and zoning code update would be consistent with the determination made in the certified EIR. The City is also subject to noise resulting from occasional aircraft overflights from regional airports, even though Vernon is outside of any specific airport noise contour.

To identify baseline community noise conditions during preparation of the certified EIR, a total of three 24-hour noise measurements and eight limited noise measurements were obtained within the planning area. The locations are shown in Exhibit 4.3-2 (Noise Measurement Locations), and the results of these measurements are summarized in Table 4.3-1 (Noise Measurement Summary).

#### Traffic Noise

The eight limited-period noise measurements revealed that ambient noise was most often due to traffic on the surface streets in Vernon. Traffic in Vernon consists of local traffic serving local businesses, as well as a substantial amount of through traffic (that is, no trip ends in Vernon) along arterials such as Bandini Boulevard, Soto Avenue, Santa Fe Avenue, and Slauson Avenue. The results from these measurements indicated an Leq (average noise level during the measurement period) of between 66 dB(A) and 75 dB(A).

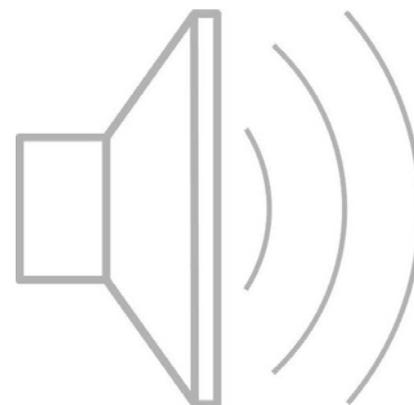
**Table 4.3-1  
Noise Measurement Summary**

| No. | Location   | Time                     | Measured Noise Levels, dB(A) |                  |      |
|-----|--|--------------------------|------------------------------|------------------|------|
|     |  |                          | L <sub>eq</sub>              | L <sub>max</sub> | CNEL |
| 1   | W. Alameda St at 42 St                                 | 11:55 A.M. to 12:23 P.M. | 67.1                         | 84.3             | N/A  |
| 2   | Rear yard of 4330 Furlong Place                        | 24 hours                 | --                           | --               | 69.3 |
| 3   | Vernon City Elementary School                          | 3:36 P.M. to 3:56 P.M.   | 73.3                         | 87.4             | N/A  |
| 4   | Leonis Blvd at Soto St                                 | 1:43 P.M. to 2:04 P.M.   | 67.6                         | 85.7             | N/A  |
| 5   | Vernon Avenue  | 5:10 P.M. to 5:31 P.M.   | 66.2                         | 76.0             | N/A  |
| 6   | E. 26 <sup>th</sup> Street (without rail yard noise)   | 10:20 A.M. to 11:20 A.M. | 69.9                         | 83.7             | N/A  |
| 6   | E. 26 <sup>th</sup> Street (with rail yard noise)      | 10:20 A.M. to 11:20 A.M. | 74.4                         | 89.3             | N/A  |
| 7   | Opposite 4408 Bandini Blvd                             | 1:49 P.M. to 2:10 P.M.   | 74.7                         | 88.0             | N/A  |
| 8   | Rear yard of 2638 53 <sup>rd</sup> St, Huntington Park | 24 hours                 | --                           | --               | 61.5 |
| 9   | Adjacent to 3345 Fruitland Ave                         | 4:18 P.M. to 4:39 P.M.   | 66.4                         | 76.5             | N/A  |
| 10  | Rear yard of 4217 52 <sup>nd</sup> St, Maywood         | 24 hours                 | --                           | --               | 64.0 |
| 11  | State St at 60 <sup>th</sup> Pl, Huntington Park       | 12:56 P.M. to 1:16 P.M.  | 70.2                         | 83.0             | N/A  |

Notes: L<sub>eq</sub> is the equivalent (i.e. average) noise level during the measurement period.  
L<sub>max</sub> is the maximum noise level during the measurement period.  
CNEL is the community noise equivalent level, a weighted 24-hour measure of noise exposure that considers people's lower tolerance to noise during the evening and nighttime hours.

## Railroad Noise

Vernon is exposed to noise from train operations on six rail lines, spur lines, and activities at the Burlington, Northern & Santa Fe (BNSF) rail yard, as well as at the Union Pacific (UPRR) rail yard in the adjacent city of Commerce. Table 4.3-2 (Existing Train Movement Data within City of Vernon) identifies the six rail lines affecting Vernon.



**Table 4.3-2  
Existing Train Movement Data within City of Vernon**

| Rail Line                       | Average Daily Operations |                           |                         | Speed  |
|---------------------------------|--------------------------|---------------------------|-------------------------|--------|
|                                 | Day<br>(7 am - 7 pm)     | Evening<br>(7 pm - 10 pm) | Night<br>(10 pm - 7 am) |        |
| BNSF line adjacent to 26th St.  |                          |                           |                         |        |
| Freight                         | 16                       | 4                         | 12                      | 40 mph |
| Amtrak                          | 19                       | 3                         | 4                       | 65 mph |
| Metrolink                       | 34                       | 2                         | 11                      | 65 mph |
| BNSF line east of Santa Fe Ave. |                          |                           |                         |        |
| Freight                         | 7                        | 2                         | 5                       | 15 mph |
| UP line on Alameda St.          |                          |                           |                         |        |
| Freight                         | 28                       | 7                         | 21                      | 40 mph |
| UP line on Downey Rd.           |                          |                           |                         |        |
| Freight                         | 22                       | 6                         | 17                      | 20 mph |
| UP line on Randolph St.         |                          |                           |                         |        |
| Freight                         | 8                        | 2                         | 6                       | 20 mph |
| UP LA subdivision line          |                          |                           |                         |        |
| Freight                         | 20                       | 5                         | 15                      | 40 mph |
| Metrolink                       | 15                       | 1                         | 5                       | 65 mph |

Referring to the noise contour map in Exhibit 4.3-1, the CNEL generated in the City of Vernon by train movements reaches levels as high as 80 dB. However, the land uses exposed to train noise are largely industrial in nature and are not noise sensitive. The primary source of annoyance to residents in the vicinity of the UPRR line adjacent to S. Downey Road is train horn soundings at crossings.

### Industrial Noise

Due to the industrial nature of the City, manufacturing businesses in Vernon create noise, including noise generated by loading dock operations, trucks entering and leaving the area, and mechanical equipment located both inside and outside the building. The certified EIR determined that industrial noise at a residence adjacent to an industrial property was 69.3 CNEL. In addition, noise measurements were taken in the rear yards of two residences located in the neighboring Huntington Park and Maywood. The results indicated a CNEL of approximately 62 dB in Huntington Park and 64 dB in Maywood.

The location at the site of measurement in Huntington Park is a residence abutting an industrial property in the City of Vernon. As such, the primary noise source affecting this residence is noise from the industrial property, with the average noise level ranging from 51.0 to 66.7 dB(A), and the maximum noise level ranged from 66.9 to 87.6 dB(A) during the daytime hours of 7:00 A.M. to 10:00 P.M. During the nighttime hours, the average noise level ranged from 44.0 to 51.5 dB(A), and the maximum noise level ranged from 54.0 to 73.7 dB(A). The calculated CNEL of 61.5 dB at this residence is less than the exterior CNEL guideline of 65 dB for residential properties in Vernon. This level also does not exceed the City of Huntington Park's CNEL standard of 65 dB.

In the city of Maywood, a noise measurement was obtained at a residence abutting an industrial property in Vernon. This residence is affected by noise from industrial ventilation equipment, traffic on Fruitland Avenue, and aircraft flyovers. At this location, the average noise level ranged from 57.1 to 60.9 dB(A), and the maximum noise level ranged from 72.3 to 84.8 dB(A) during the daytime hours of 7:00 A.M. to 10:00 P.M. During the nighttime hours, the average noise level ranged from 55.1 to 58.5 dB(A), and the maximum noise level ranged from 71.1 to 84.7 dB(A). The City of Maywood zoning code lists the following noise standards for residential areas: 55 dB(A) during nighttime hours of 10:00 P.M. to 7:00 A.M. and 60 dB(A) during daytime hours of 7:00 A.M. to 10:00 P.M.

### **Noise-sensitive Land Uses**

Noise is particularly problematic when noise-sensitive land uses are proximate to the noise. Because Vernon predominantly consists of industrial uses and because policy set forth in the Housing Element prohibits the construction of any new housing in Vernon in recognition of the hazards – including high noise levels associated with widespread industrial activity – these standards discourage any new noise-sensitive use that would be incompatible with the City’s industrial focus. However, the adopted 2014-2021 Housing Element included the addition of Housing and Emergency Shelter Overlays. The Housing Overlay supports development of residential units on approximately two acres in the eastern portion of the Planning Area and the Emergency Shelter Overlay supports development of emergency shelters on approximately 1.61 acres in the northwest portion of the Planning Area. The only noise-sensitive land uses currently existing within the City are 31 residential units (as of 2007) and the Vernon City Elementary School. These residences are primarily clustered in three areas: (1) on East Vernon Avenue at Furlong Place, (2) on East Vernon Avenue between Downey Road and Alcoa Avenue, and (3) on Fruitland Avenue west of Downey Road. In addition, there are a few mixed-use residential/commercial land uses on Leonis Boulevard at Soto Street. Vernon City Elementary School is located at the southwest corner of East Vernon Avenue and South Santa Fe Avenue. As noted above, residential neighborhoods in Maywood and Huntington Park abut Vernon. Schools are located near the City boundary as well. According to Figure 4.3-1 (Noise/Land Use Compatibility Matrix (noise standards), exterior noise levels are normally compatible up to 75 dB CNEL for residential use and 65 dB CNEL for school use.

### ***Threshold for Determining Significance***

In the adopted General Plan, the City establishes CNEL standards for noise/land use compatibility. The CNEL standard is up to 65 CNEL for schools and churches, up to 75 CNEL for residences and office uses, and generally up to 80 CNEL or higher for the predominate industrial uses as shown in Figure 4.3-1 (Noise/Land Use Compatibility Matrix (noise standards)). In the Zoning Ordinance, the City sets forth one-hour standards for point-source noise as follows:

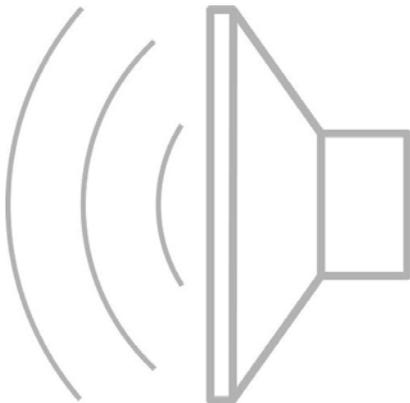
- 75 dB(A) citywide, except within one-tenth of a mile from any residence or public school;

### 4.3 Noise

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- Within one-tenth of a mile of residences and schools, 65 dB(A) during day-time hours; and
- Within one-tenth of a mile of residences, 60 dB(A) during night-time hours.

Any noise source in excess of the standards specified may only be permitted with a Conditional Use Permit, which may only be permitted with a finding that the proposed use will not adversely affect the general welfare as a result of noise.



**Figure 4.3-1  
Noise/Land Use Compatibility Matrix (noise standards)**

| Land Use Category   | CNEL, dB |    |    |    |    |    |    |
|---|----------|----|----|----|----|----|----|
|   | 50       | 55 | 60 | 65 | 70 | 75 | 80 |
| Residential - Multi-family, Duplex  | A        | A  | B  | B  | B  | C  | C  |
| Schools, Churches   | A        | A  | B  | C  | C  | C  | D  |
| Office Building, Research & Development, Professional Offices, City Office Building | A        | A  | A  | B  | B  | C  | C  |
| Commercial Retail, Banks, Restaurants   | A        | A  | A  | A  | B  | B  | C  |
| Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities  | A        | A  | A  | A  | B  | B  | B  |
| Agriculture   | A        | A  | A  | A  | A  | A  | A  |

A

**CLEARLY COMPATIBLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

B

**NORMALLY COMPATIBLE**

New construction or development should be undertaken only after detailed analysis of the noise reduction requirements is made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

C

**NORMALLY INCOMPATIBLE**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

D

**CLEARLY INCOMPATIBLE**

New construction or development should generally not be undertaken.

### ***Environmental Impact***

As discussed in Section 3.0 (Project Description) of this Supplemental EIR, updated General Plan land use policy permits the establishment of housing on 52<sup>nd</sup> Place between King Avenue and Mayflower Avenue in the southeastern portion of the

City. With regard to the future establishment of other noise-sensitive uses such as hospitals, day-care facilities, and private schools, the Zoning Ordinance specifically prohibits these uses. The City has no jurisdiction regarding the placement of public schools within Vernon, but generally the City discourages such uses due to the industrial nature of the community.

The certified EIR indicated that long-term implementation of land use policy is anticipated to result in a decline in the amount of industrial building space citywide by approximately 1.2 million square feet over the life of the General Plan. The decline will occur generally because new development will be required to meet current parking and loading standards. Older buildings that currently cover entire lots will be replaced with more modern development projects that provide sufficient off-street parking and loading facilities.

The General Plan Noise Element includes the noise/land use compatibility criteria that will guide decisions regarding the siting of new land uses and protecting existing noise-sensitive uses from excessive noise. Future development projects pursuant to updated General Plan land use policy will be considered compatible with the existing noise environment if the project is deemed to be normally acceptable or conditionally acceptable. Those projects which are determined to be normally acceptable are likely to require no mitigation measures, and those which are conditionally acceptable may be required to incorporate mitigation measures to achieve City standards. Measures may include, for example, noise insulation internal or external to the building, including sound walls or building insulation.

To address point-source noise associated with industrial activity, the Zoning Ordinance establishes the following standards:

- 75 dB(A) citywide, except near any residence or public school;
- Within one-tenth of a mile of residences and schools, 65 dB(A) between 7:00 A.M. and 10:00 P.M.; and
- Within one-tenth of a mile of residences, 60 dB(A) between 10:00 P.M. and 7:00 A.M.

Per the Zoning Ordinance, any noise source in excess of the standards specified may only be permitted with a Conditional Use Permit, which may only be permitted with a finding that the proposed use will not adversely affect the general welfare as a result of noise.

#### **Land Use Compatibility and Projected Future Noise Levels**

Noise contour modeling was performed during preparation of the certified General Plan EIR based on projected future regional traffic volumes and rail activity to determine future noise conditions. Exhibit 4.3-3 (Future CNEL Contours) illustrates the projected future noise contours for Vernon. As the Exhibit shows, the highest noise levels – up to 80 CNEL – are anticipated to occur around the Hobart rail yard, along Alameda Street, along Santa Fe Avenue between Vernon Avenue and 37th Street, along Soto Street north of Vernon Avenue, and along Bandini Avenue and

Atlantic Boulevard north of the Los Angeles River. These increases are anticipated due to the anticipated increase in regional truck and vehicle traffic utilizing these surface streets.

The focused General Plan and Zoning Ordinance update establishes a new Truck and Freight Terminal Overlay and replaces and expands the existing Commercial Overlay with the new C-1 and C-2 Commercial Overlays. Development pursuant to focused update will result in continued industrial use throughout the community, with provision for commercial uses along Santa Fe Avenue, Pacific Boulevard, Soto Street north of Fruitland Avenue, East Slauson Avenue, and select areas at the eastern boundary of the Vernon to meet the needs of the daytime employee population. The noise/land use compatibility criteria indicate that such uses are classified as normally compatible in environments with a CNEL of up to 80. Vernon General Plan land use policy and Zoning Ordinance strictly limit any new noise-sensitive uses (for example, residences, schools, day-care facilities, hospitals) into the City, except for residences in the Housing Overlay, which are subject to a Development Agreement. A Development Agreement will allow tailored development standards to be applied to proposed residential projects, thereby providing flexibility in responding to the unique land use conditions in Vernon. In addition, the certified EIR established Mitigation Measures N-1 and N-2. Mitigation Measure N-1 requires that the City continue to enforce noise regulations and to periodically evaluate regulations for adequacy and revision as needed. Mitigation Measure N-2 requires the review of all development proposals and building permits to determine whether the proposed use has the potential to exceed City noise standards. An acoustical analysis is required for all developments with the potential to exceed noise standards and for uses near existing residences and schools. All mitigation measures included in the certified EIR are applicable to the proposed focused General Plan and Zoning Ordinance update. Thus, consistent with the certified EIR, the City does not anticipate that any new noise/land use conflicts within Vernon will arise over the life of this General Plan update. In this regard, impact will be less than significant and consistent with the findings of the certified EIR.

### **Industrial Noise and Ground-borne Vibrations**

In general, existing noise and vibration conditions associated with industrial activity within Vernon are not considered excessive because of the predominantly industrial nature of the City. As stated in the certified EIR, implementation of land use policy and zoning regulations will allow potentially noise-intensive industrial businesses to locate adjacent or in close proximity to existing residences in Vernon, Vernon City Elementary School, and residences and public schools in adjacent jurisdictions. Impact would primarily result from noise generated by loading dock operations, trucks entering and leaving the area, mechanical equipment located both inside and outside the building(s), and outdoor industrial activity. Implementation of zoning regulations that establishes one-hour standard of 65 dB(A) between 7:00 A.M. and 10:00 P.M. within one-tenth mile of any residence or public school in Vernon or adjacent communities. In addition, a conditional use permit for any use that has the potential to generate excessive noise is required for any use within one-tenth

mile of a residence or public school. The certified EIR determined that implementation of these regulations will allow the City to mitigate any potential impacts associated with individual projects on a case-by-case basis and reduce impact to level considered less than significant.

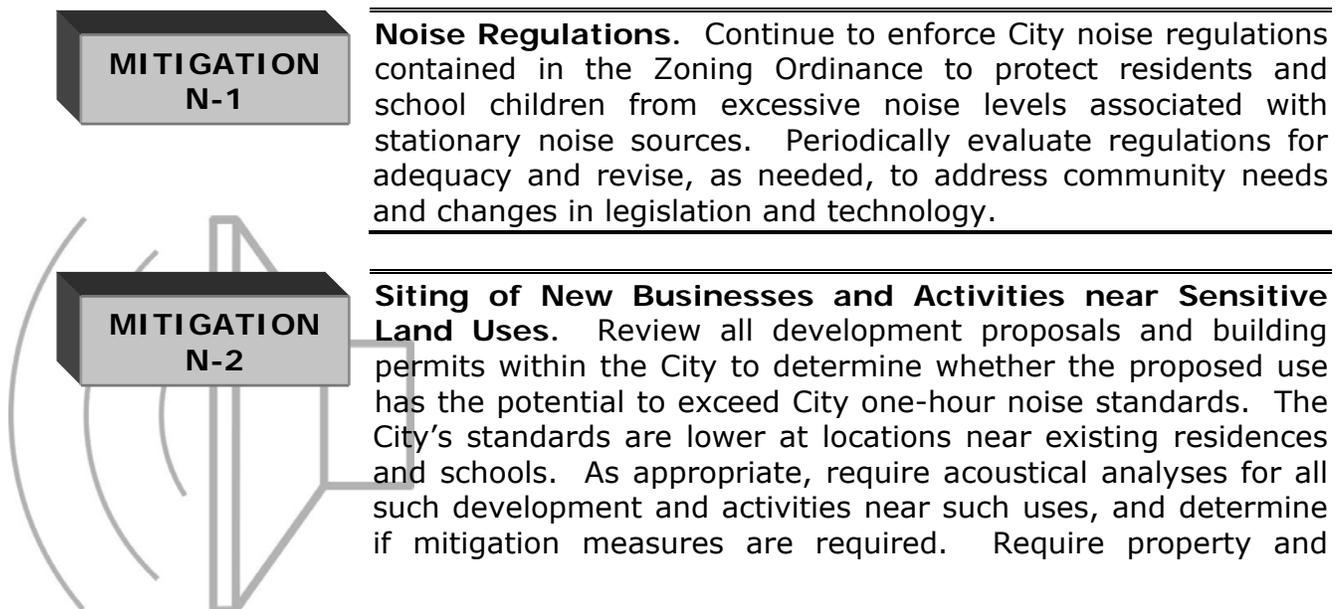
The focused General Plan and Zoning Ordinance update establishes a new Truck and Freight Terminal Overlay and replaces and expands the existing Commercial Overlay with the new C-1 and C-2 Commercial Overlays. Potential new commercial uses along Santa Fe Avenue, Pacific Boulevard, Soto Street, and East Slauson Avenue will be located in close proximity to existing industrial, residential, and school use. Consistent with the certified EIR, implementation of zoning regulations will require potential impacts to be evaluated on a case-by-case basis. In addition, implementation of certified EIR Mitigation Measures N-1 and N-2 will reduce impacts to less than significant levels.

With regard to ground-borne vibrations, Vernon is a predominately industrial city with uses that involve industrial processes that produce vibrations measurable beyond the property line. As stated in the certified EIR, Article IV, Section 26.4.1-6 of the Zoning Ordinance addresses such vibrations and guards against one business adversely impacting another. The certified EIR determined that impacts related to ground-borne vibrations will be less than significant.

Consistent with the certified EIR, Article IV, Section 26.4.1-6 of the Zoning Ordinance will apply to future use pursuant to the focused General Plan and Zoning Ordinance update. Thus, impact will be less than significant and consistent with the findings of the certified EIR.

### ***Mitigation Measures***

The following mitigation measures were incorporated with the certified General Plan EIR and remain applicable to the proposed General Plan update.



**Noise Regulations.** Continue to enforce City noise regulations contained in the Zoning Ordinance to protect residents and school children from excessive noise levels associated with stationary noise sources. Periodically evaluate regulations for adequacy and revise, as needed, to address community needs and changes in legislation and technology.

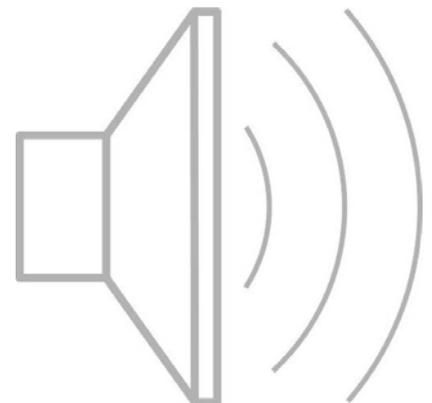
**Siting of New Businesses and Activities near Sensitive Land Uses.** Review all development proposals and building permits within the City to determine whether the proposed use has the potential to exceed City one-hour noise standards. The City's standards are lower at locations near existing residences and schools. As appropriate, require acoustical analyses for all such development and activities near such uses, and determine if mitigation measures are required. Require property and

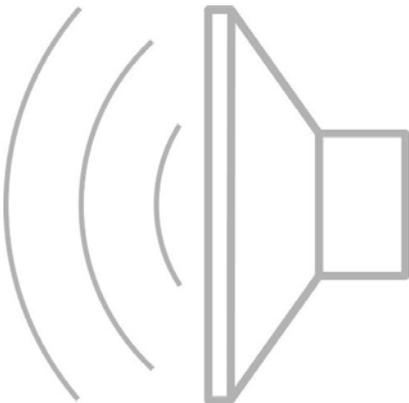
business owners to implement mitigation to achieve City noise standards.

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***Level of Impact after Mitigation Incorporation***

Consistent with the certified EIR, impacts will be less than significant at the program level with implementation of mitigation, General Plan policies, and regulatory requirements.





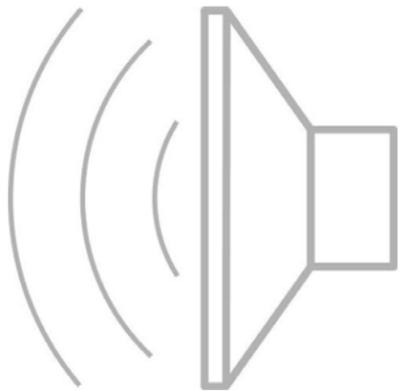


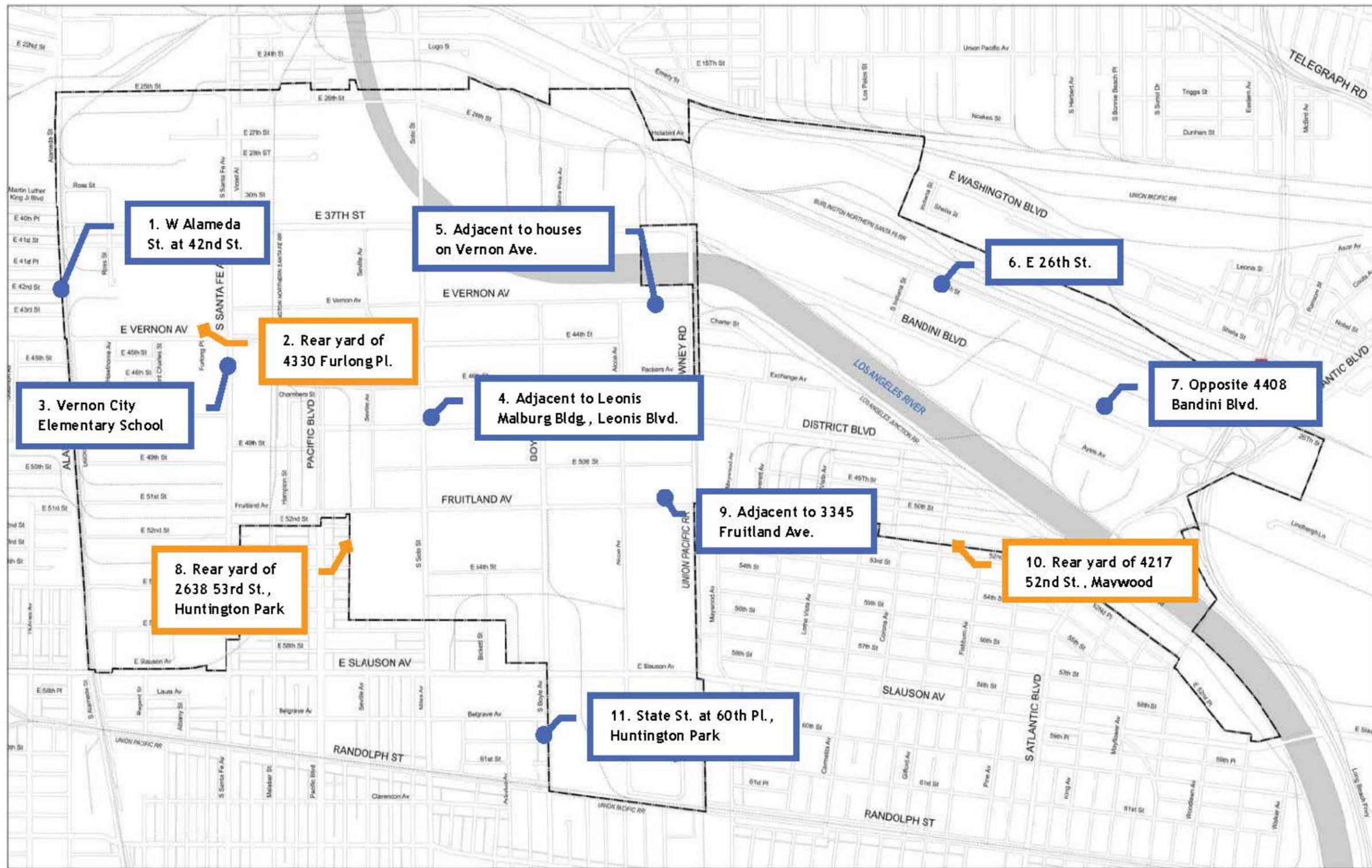
| LEGEND |               | EXISTING (2007) NOISE CONTOURS |         |
|--------|---------------|--------------------------------|---------|
|        | City Boundary |                                | 80 CNEL |
|        | Freeway       |                                | 75 CNEL |
|        | Railroad      |                                | 70 CNEL |
|        |               |                                | 65 CNEL |
|        |               |                                | 60 CNEL |

## Exhibit 4.3-1 - 2007 Noise Contours

City of Vernon General Plan Update  
Vernon, CA

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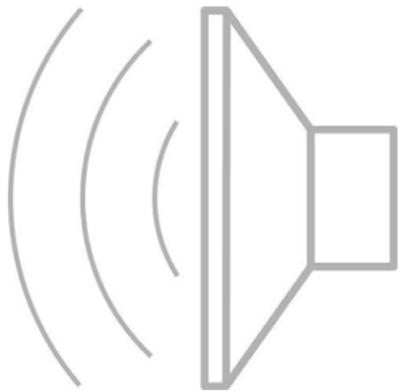
- LEGEND**
- City Boundary
  - Railroad
  - Freeway
  - Los Angeles River
  - 20 Minute Limited Noise Measurement Location
  - 24 Hour Noise Measurement Location

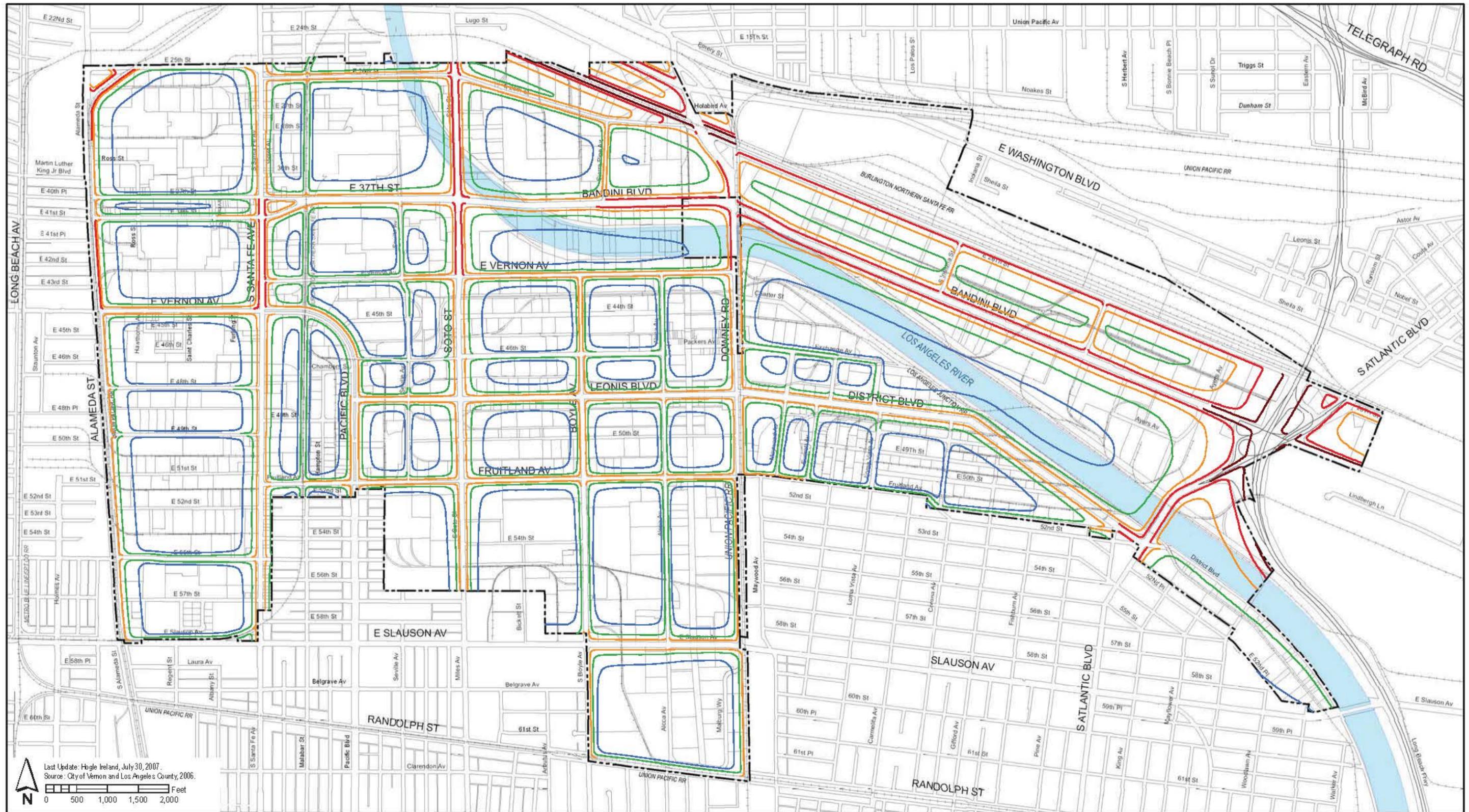
Last Update: CDAR February 21, 2007  
 Source: City of Vernon 2005 and Los Angeles County, 2005  
 0 600 1,200 1,800 2,400 3,000 Feet  
 1 inch equals 600 feet

## Exhibit 4.3-2 - Noise Measurement Locations

City of Vernon General Plan Update  
 Vernon, CA

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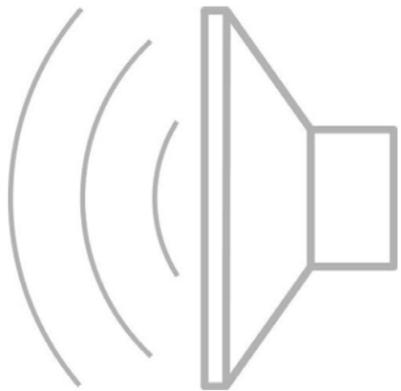
Last Update: Hogle Ireland, July 30, 2007.  
 Source: City of Vernon and Los Angeles County, 2006.

|        |               |                              |         |
|--------|---------------|------------------------------|---------|
| LEGEND |               | FUTURE (2030) NOISE CONTOURS |         |
|        | City Boundary |                              | 80 CNEL |
|        | Freeway       |                              | 75 CNEL |
|        | Railroad      |                              | 70 CNEL |
|        |               |                              | 65 CNEL |
|        |               |                              | 60 CNEL |

### Exhibit 4.3-3 - Future Noise Contours

City of Vernon General Plan Update  
 Vernon, CA

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## Transportation and Traffic 4.4

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The Initial Study indicated that impacts related to circulation system performance and the Congestion Management Program (CMP) could be potentially significant and have been analyzed herein. The Initial Study concluded that adoption and long-term implementation of the Vernon General Plan update does not have the potential to result in a change in air traffic patterns, substantially increase hazards due to a design feature or incompatible uses, result in inadequate emergency access, or conflict with alternative transportation strategies.

The traffic analysis prepared by Kunzman Associates (Appendix C) focuses on the ability of the City's roadways to accommodate long-term traffic volumes associated with growth due to the adoption of the Truck Overlay (and the previously adopted Residential Overlay), as compared to the analysis provided in the certified General Plan EIR. The impact discussion provided herein also includes analysis of the addition of the expanded Commercial Overlay district.

The approach to the traffic analysis first involved identifying conditions on local roadways based on extensive citywide traffic counts obtained in February 2012 and October 2012. Future roadway volumes for the 2035 horizon year were projected using an annual growth factor of 0.5 percent per year. Those intersections that were identified in the certified General Plan EIR as operating at unacceptable levels were analyzed to determine if the addition of the various overlays would further degrade performance in these areas.

Two primary measures were used to evaluate the existing and planned capacity of the existing and planned roadway system within the Planning Area: volume and capacity. As noted, current volumes were established via traffic counts, and future volumes reflect projections. Capacity refers to the vehicle-carrying ability of a roadway at free-flow speed. The ratio between volume and capacity (V/C) is used to establish a level of service (LOS) for roadway facilities. LOS is a qualitative description of traffic operations for roadway facilities. LOS A indicates free flow conditions with little or no delay. LOS F indicates a high level of delay with severe congestion. LOS C indicates moderate delay. LOS D indicates marginally acceptable traffic operations in urban areas. The threshold of LOS E is the theoretical capacity of the street or intersection.

Analysis of the arterial road system was conducted using the intersection capacity approach since intersections are the primary limiting factor within the roadway system. Levels of service for arterial roadway intersections are determined based on operating conditions during the A.M. and P.M. peak hours. The intersection capacity utilization (ICU) methodology is applied using peak-hour volumes and considers the geometric configuration of intersections when measuring capacity. The ICU method sums the V/C ratios for the critical movements of an intersection and is generally compatible with the intersection capacity analysis methodology outlined in the *2000 Highway Capacity Manual*. **Table 4.4-1** summarizes ICU ranges and corresponding LOS descriptions.

**Table 4.4-1  
Arterial Intersection Performance Criteria**

| ICU                             | Level of Service (LOS) |
|---------------------------------|------------------------|
| 0.70 – 0.79                     | C                      |
| 0.80 – 0.89                     | D                      |
| 0.90 – 1.00+                    | E/F                    |
| Source: Kunzman Associates 2012 |                        |

## ***Environmental Setting***

### **Roadway System**

Vernon is centrally located within the Los Angeles metropolitan area, with ready access to the freeway network and regional rail lines. Interstate 710 (I-710) runs along the City’s eastern boundary, providing direct access to the ports of Long Beach and Los Angeles. Approximately one mile north of Vernon is the I-10, I-5, State Route 60 (SR 60) interchange. I-110 is approximately two and one-half miles to the west, and I-105 is approximately four miles south of the City. These freeways connect to numerous other freeways in the region, including the I-405, I-605, SR-60, SR-91, and US 101.

Vernon’s street system is differentiated by roadway size, function, and capacity. The four basic types of roadways in Vernon are freeways, arterial streets, collector streets, and local streets. The assignment of these classifications to streets in the City is shown on the Circulation Plan in Exhibit 4.3-1 (Circulation Plan). Major arterials traversing the City include Alameda Street, Atlantic Boulevard, Bandini Boulevard/37th Street, Pacific Boulevard, Santa Fe Avenue, Slauson Avenue, and Soto Street. Collector streets in the City include Fruitland Avenue, Leonis Boulevard/District Boulevard, Vernon Avenue, 51<sup>st</sup> Street, and 26<sup>th</sup> Street. Cumulatively, these roadways carry the majority of traffic in the City, much of which is through traffic.

As noted, I-710 provides an important direct connection from regional rail facilities to the ports of Long Beach and Los Angeles. Although less than half a mile of this freeway traverses Vernon, that portion contains the very busy Atlantic Boulevard/Bandini Boulevard interchange. This frequently congested interchange carries a substantial amount of truck traffic from Vernon, particularly from the adjacent Hobart Rail Yard. In August of 2004, the Gateway Cities Council of Governments made preliminary recommendations to improve the Atlantic/Bandini interchange, as well as to build truck ramps directly from the rail yards to the freeway. Engineering plans and studies for this interchange will continue in concert with broader plans for improvements to I-710, with expected improvements to the interchange to be accomplished prior to 2030. The timing will depend upon State approvals and funding. Once implemented, the interchange improvements are expected to relieve a major traffic bottleneck and improve safety by separating autos from heavy truck traffic.

## Railroads

Railroads in and through Vernon include several rail lines, many with at-grade railroad crossings located throughout the City that affect traffic flow. Several rail yards are also located within the City limits. The largest is the Hobart Rail Yard located to the northeast, between East 26th Street and East Washington Boulevard. Two other smaller yards are the Malabar Yard, located north of Fruitland and east of Pacific Boulevard, and the Los Angeles Junction Yard, located between Exchange Boulevard and the Los Angeles River. A portion of the Union Pacific East Yard is also located in Vernon, with other rail yards nearby but outside of Vernon city limits.

## Public Transit

Public transit, primarily functioning as an alternative mode of transportation to and from the workplace, is available in Vernon. The City is served by a number of bus routes operated by the Los Angeles County Metropolitan Transportation Authority (Metro). These bus routes run on Soto Street, Vernon/Pacific, Santa Fe Avenue, and Vernon/Leonis, and also Downey/Vernon/Boyle. In addition, the Montebello Municipal Bus Line provides a route that runs on Washington Boulevard with stops at Atlantic and at Downey.

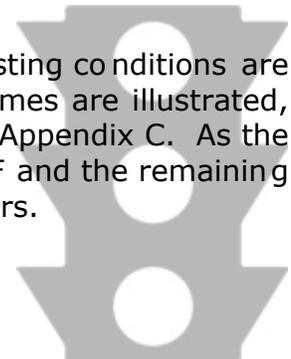
The Metro Rail Blue Line light rail system has a station at Vernon and Alameda, which is located approximately one-quarter mile west of the City boundary.

## Existing Traffic Conditions

In 2012, an extensive turning movement and traffic count collection program was undertaken at key intersections in the City of Vernon. Intersection capacity was studied at peak hours. To assess intersection capacity, turning movement volumes at a total of 17 intersections in the City were counted during morning (7:00 AM to 9:00 AM) and evening peak periods (4:00 PM to 6:00 PM).

A passenger car equivalent (PCE) factor of 2.5 was applied to truck turning movements. The PCE factor reflects the fact that heavy trucks not only occupy two to three times as much physical space as passenger cars and pickup trucks, but they also take two to three times as long as passenger vehicles to accelerate and, therefore, have a greater impact on the roadway capacity. The PCE factor used in the traffic analysis was derived from industry standards of 2.0 PCE for large two-axle trucks and 3.0 PCE for three or more axle trucks.

Peak-hour intersection capacity utilization (ICU) values for existing conditions are summarized in Table 4.4-2. Peak-hour turning movement volumes are illustrated, and ICU calculation worksheets are shown in the traffic study in Appendix C. As the table indicates, fifteen study intersections operate at LOS E or F and the remaining two operate at acceptable levels during the AM and PM peak hours.



**Table 4.4-2  
Existing (2012) Intersection Capacity Utilization (ICU) Summary**

| ID #                        | Intersection                         | AM Peak Hour       |              | PM Peak Hour       |              |
|-----------------------------|--------------------------------------|--------------------|--------------|--------------------|--------------|
|                             |                                      | Existing V/C Ratio | Existing LOS | Existing V/C Ratio | Existing LOS |
| Alameda Street (NS) at:     |                                      |                    |              |                    |              |
| 1a                          | Vernon Avenue - West (EW)            | 1.454              | F            | 1.502              | F            |
| 1b                          | Vernon Avenue - East (EW)            | 1.334              | F            | 1.097              | F            |
| 2a                          | 55th Street - West (EW)              | 1.186              | F            | 1.521              | F            |
| 2b                          | 55th Street - East (EW)              | 0.891              | D            | 0.735              | C            |
| Santa Fe Avenue (NS) at:    |                                      |                    |              |                    |              |
| 3                           | 25th/26th Street (EW)                | 1.04               | F            | 1.014              | F            |
| 4                           | 38th Street (EW)                     | 0.956              | E            | 1.011              | F            |
| 5                           | Vernon Avenue (EW)                   | 0.972              | E            | 0.923              | E            |
| 6                           | Vernon Avenue/Pacific Boulevard (EW) | 0.919              | E            | 0.957              | E            |
| Soto Street (NS) at:        |                                      |                    |              |                    |              |
| 7                           | 26th Street (EW)                     | 1.009              | F            | 1.181              | F            |
| 8                           | Bandini Boulevard (EW)               | 0.951              | E            | 1.003              | F            |
| 9                           | Vernon Avenue (EW)                   | 0.861              | D            | 0.948              | E            |
| 10                          | Leonis Boulevard (EW)                | 0.876              | D            | 0.814              | D            |
| 11                          | Fruitland Avenue (EW)                | 0.806              | D            | 0.879              | D            |
| Boyle Avenue (NS) at:       |                                      |                    |              |                    |              |
| 12                          | Slauson Avenue (EW)                  | 1.081              | F            | 1.202              | F            |
| Downey Road (NS) at:        |                                      |                    |              |                    |              |
| 13                          | Washington Boulevard (EW)            | 0.868              | D            | 0.92               | E            |
| 14                          | Bandini Boulevard (EW)               | 0.902              | E            | 0.942              | E            |
| 15                          | Slauson Avenue (EW)                  | 0.974              | E            | 0.97               | E            |
| Atlantic Boulevard (NS) at: |                                      |                    |              |                    |              |
| 16                          | Bandini Boulevard (EW)               | 1.543              | F            | 1.433              | F            |
| 17                          | District Boulevard (EW)              | 0.858              | D            | 0.975              | E            |

***Threshold for Determining Significance***

For the purpose of this Supplemental EIR, a significant impact will occur if implementation of the project would:

- A. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- B. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or

other standards established by the county congestion management agency for designated roads or highways;

The City of Vernon has established an intersection capacity performance standard of 0.90 for peak-hour intersection operation impacts. This standard means that an intersection is operating at 90 percent of its capacity, corresponding to LOS D, is acceptable. If the project were to cause an intersection to operate at LOS E or F, that would be considered a significant impact. In addition, based on the Los Angeles Department of Transportation Policies and Procedures, an impact is considered significant if the project-related increase in the V/C ratio increases by 0.04 or more for LOS C intersections, by 0.02 for LOS D intersections, and 0.01 for LOS E and F intersections.

## ***Environmental Impacts***

### **Impacts 4.4.A and 4.4.B Circulation System Performance**

The certified General Plan EIR found that impacts to the local and regional circulation system would be significant and unavoidable. The certified General Plan EIR analysis identifies physical improvements to a number of roadways that will improve local and regional traffic flow including the 26<sup>th</sup> Street extension, the Atlantic Boulevard Bridge widening, the Soto Street widening, and Interstate 710 improvements. The certified General Plan EIR also references Circulation and Infrastructure Element Policy CI-1.12 and Mitigation Measure T-1 that recommends installation and maintenance of an Intelligent Transportation System (ITS) such as the Los Angeles County Automated Traffic Surveillance and Control (ATSAC) system that will improve traffic flow. Implementation of these improvements is anticipated to increase circulation system performance at the majority of intersections excluding Santa Fe at 38<sup>th</sup>, Soto at Fruitland, and Atlantic at Bandini. Mitigation was also incorporated to further reduce potential circulation system impacts related to coordinating with adjacent jurisdictions, agencies, and rail companies minimizing parking interference. Due to the lack of right-of-way to make additional physical improvements, lack of local control over regional system elements, and uncertainty in funding, impacts to the local and regional circulation system remain significant and unavoidable after consideration of General Plan policies and incorporation of mitigation.

The traffic study prepared for this Supplemental EIR includes updated analysis of the existing General Plan and the General Plan update based on existing conditions (2012) through 2035.<sup>1</sup> Impacts from the inclusion of the proposed Truck and Freight Overlay (and the recently adopted Housing Element Residential Overlay) can then be compared to the analysis provided in the certified General Plan EIR to determine if impacts will be equal to or less than those determined in the analysis. Additionally, a qualitative discussion of the expanded Commercial Overlay has been included. The Slaughtering and Rendering Overlays are not discussed because trip generation from the uses is the same as the underlying Industrial land use designation.

Truck and Freight Overlay

Table 4.4-3 (Year 2035 Intersection Capacity Utilization (ICU) Summary) includes updated projections for 2035 based on current (2012) General Plan and Zoning development assumptions to update what intersections are already projected to operate at unacceptable levels without the proposed updates. Of particular note, one intersection (Alameda and Vernon west) would be projected to operate at LOS E or F in 2035 at one or more peak hour periods that was not previously projected to operate at LOS E or F in 2030 at any period. At some intersections, the proposed update will improve peak hour traffic conditions in 2035 when compared to the current General Plan traffic for 2035.

The traffic analysis indicates that the proposed Truck and Freight Overlay will not significantly increase impacts at any of the study intersections because the volume-capacity ratio will not increase by 0.02 at any LOS D intersections or by 0.01 at any LOS E or LOS F intersections. Therefore, impacts will remain consistent with the analysis provided in the certified General Plan EIR as **significant and unavoidable** after consideration of General Plan policy and mitigation incorporation.



**Table 4.4-3  
Year 2035 Intersection Capacity Utilization (ICU) Summary**

| ID#                  | Intersection              | Peak Hour | Current General Plan |          | Proposed General Plan |          | Project Impact from Current GP |
|----------------------|---------------------------|-----------|----------------------|----------|-----------------------|----------|--------------------------------|
|                      |                           |           | 2035 V/C             | 2035 LOS | 2035 V/C              | 2035 LOS |                                |
| Alameda Street (NS)  |                           |           |                      |          |                       |          |                                |
| 1a                   | Vernon Avenue - West (EW) | Morning   | 1.617                | F        | 1.617                 | F        | 0.000                          |
|                      |                           | Evening   | 1.671                | F        | 1.671                 | F        | 0.000                          |
| 1b                   | Vernon Avenue - East (EW) | Morning   | 1.217                | F        | 1.217                 | F        | 0.000                          |
|                      |                           | Evening   | 1.317                | F        | 1.317                 | F        | 0.000                          |
| 2a                   | 55th Street - West (EW)   | Morning   | 1.482                | F        | 1.482                 | F        | 0.000                          |
|                      |                           | Evening   | 1.692                | F        | 1.692                 | F        | 0.000                          |
| 2b                   | 55th Street - East (EW)   | Morning   | 0.811                | D        | 0.811                 | D        | 0.000                          |
|                      |                           | Evening   | 1.153                | D        | 1.153                 | D        | 0.000                          |
| Santa Fe Avenue (NS) |                           |           |                      |          |                       |          |                                |
| 3                    | 25th/26th Street (EW)     | Morning   | 0.986                | E        | 0.988                 | E        | 0.002                          |
|                      |                           | Evening   | 1.124                | F        | 1.125                 | F        | 0.001                          |
| 4                    | 38th Street (EW)          | Morning   | 1.059                | F        | 1.055                 | F        | -0.004                         |
|                      |                           | Evening   | 1.121                | F        | 1.119                 | F        | -0.002                         |
| 5                    | Vernon Avenue (EW)        | Morning   | 1.077                | F        | 1.076                 | F        | -0.001                         |
|                      |                           | Evening   | 1.022                | F        | 1.018                 | F        | -0.004                         |

4.4 Transportation and Traffic

| ID#               | Intersection                         | Peak Hour | Current General Plan |          | Proposed General Plan |          | Project Impact from Current GP |
|-------------------|--------------------------------------|-----------|----------------------|----------|-----------------------|----------|--------------------------------|
|                   |                                      |           | 2035 V/C             | 2035 LOS | 2035 V/C              | 2035 LOS |                                |
| 6                 | Vernon Avenue/Pacific Boulevard (EW) | Morning   | 1.017                | F        | 1.017                 | F        | 0.000                          |
|                   |                                      | Evening   | 1.061                | F        | 1.062                 | F        | 0.001                          |
| Soto Street (NS)  |                                      |           |                      |          |                       |          |                                |
| 7                 | 26th Street (EW)                     | Morning   | 1.118                | F        | 1.127                 | F        | 0.009                          |
|                   |                                      | Evening   | 1.311                | F        | 1.134                 | F        | -0.177                         |
| 8                 | Bandini Boulevard (EW)               | Morning   | 1.053                | F        | 1.060                 | F        | 0.007                          |
|                   |                                      | Evening   | 1.111                | F        | 1.111                 | F        | 0.000                          |
| 9                 | Vernon Avenue (EW)                   | Morning   | 0.953                | E        | 0.953                 | F        | 0.000                          |
|                   |                                      | Evening   | 1.050                | F        | 1.050                 | F        | 0.000                          |
| 10                | Leonis Boulevard (EW)                | Morning   | 0.969                | E        | 0.969                 | E        | 0.000                          |
|                   |                                      | Evening   | 0.899                | D        | 0.899                 | D        | 0.000                          |
| 11                | Fruitland Avenue (EW)                | Morning   | 0.891                | D        | 0.891                 | D        | 0.000                          |
|                   |                                      | Evening   | 0.973                | E        | 0.973                 | E        | 0.000                          |
| Boyle Avenue (NS) |                                      |           |                      |          |                       |          |                                |
| 12                | Slauson Avenue (EW)                  | Morning   | 1.199                | F        | 1.199                 | F        | 0.000                          |
|                   |                                      | Evening   | 1.335                | F        | 1.334                 | F        | -0.001                         |
| Downey Road (NS)  |                                      |           |                      |          |                       |          |                                |
| 13                | Washington Boulevard (EW)            | Morning   | 0.960                | E        | 0.963                 | E        | 0.003                          |

| ID#                             | Intersection            | Peak Hour | Current General Plan |          | Proposed General Plan |          | Project Impact from Current GP |
|---------------------------------|-------------------------|-----------|----------------------|----------|-----------------------|----------|--------------------------------|
|                                 |                         |           | 2035 V/C             | 2035 LOS | 2035 V/C              | 2035 LOS |                                |
| 14                              | Bandini Boulevard (EW)  | Evening   | 1.019                | F        | 1.019                 | F        | 0.000                          |
|                                 |                         | Morning   | 0.998                | E        | 1.002                 | F        | 0.004                          |
|                                 |                         | Evening   | 1.043                | F        | 1.048                 | F        | 0.005                          |
| 15                              | Slauson Avenue (EW)     | Morning   | 1.079                | F        | 1.081                 | F        | 0.002                          |
|                                 |                         | Evening   | 1.075                | F        | 1.073                 | F        | -0.002                         |
| Atlantic Boulevard (NS)         |                         |           |                      |          |                       |          |                                |
| 16                              | Bandini Boulevard (EW)  | Morning   | 1.717                | F        | 1.725                 | F        | 0.008                          |
|                                 |                         | Evening   | 1.594                | F        | 1.598                 | F        | 0.004                          |
| 17                              | District Boulevard (EW) | Morning   | 0.949                | E        | 0.952                 | E        | 0.003                          |
|                                 |                         | Evening   | 1.081                | F        | 1.080                 | F        | -0.001                         |
| Source: Kunzman Associates 2012 |                         |           |                      |          |                       |          |                                |





### Commercial Overlay

The project includes an increase in the Commercial Overlay district from 210 acres to 453 acres. The Commercial Overlay district has also been further refined through the C-1 and C-2 Overlay Zones. The Commercial Overlay district is intended to provide opportunities for service and retail uses that support surrounding industrial uses. It must be emphasized that the Commercial Overlay district is not intended nor anticipated to substantially convert industrial uses to commercial uses. The Commercial Overlay district and associated zoning is designed to establish use and development standards for future commercial development but is not designed to encourage or increase commercial development. The entirety of the Planning Area is planned to remain industrial over the long-term.

Commercial uses generate substantially more traffic than industrial uses. Based on the Institute of Transportation Engineer's (ITE) *Trip Generation* manual, warehousing and manufacturing uses generate 3.56 to 3.82 daily trips per 1,000 square feet of building area, respectively, and without consideration of PCE factors.<sup>ii</sup> Common commercial development that could be constructed in the Commercial Overlay district such as strip retail, shopping centers, gas stations, and fast food establishments generate between 39.00 and 845.60 daily trips per 1,000 square feet.

Commercial development accounts for approximately 1.4 percent of the development in the Planning Area (40 acres / 2,948 acres = 1.36 percent). Commercial development over the long-term is anticipated to remain at similar levels, considering the proposed General Plan update supports primarily industrial uses. Therefore, commercial development will not generate a substantial amount of traffic when compared to the Planning Area as a whole, even after consideration of the increase in trip generation rates. Furthermore, future commercial developments will be subject to environmental review pursuant to the California Environmental Quality Act (CEQA). Future commercial development that could significantly affect the local and/or regional circulation system will be required to incorporate mitigation, where feasible, to eliminate, reduce, or minimize project-level traffic impacts. Considering the relatively small amount of long-term commercial development anticipated in the Planning Area and the standard environmental review requirements of the City, impacts to the local and regional circulation system due to the expansion of the Commercial Overlay district will not be substantial when compared to the analysis provided in the certified General Plan EIR. Impacts remain **significant and unavoidable**.



### Mitigation Measures

The following mitigation measures were incorporated with the certified General Plan EIR and remain applicable to the proposed General Plan update.



**MITIGATION  
T-1**

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**Automated Traffic Surveillance and Control System (ATSAC).** Conduct a study to determine if ATSAC would be a beneficial and cost-effective system for the City to operate and maintain.

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**MITIGATION  
T-2**

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**Coordinate with Adjacent Jurisdictions.** Continue to coordinate intersection maintenance and improvements with adjacent jurisdictions so that intersections along Soto Street, Pacific Boulevard, Slauson Avenue, Alameda Street, Atlantic Boulevard, Bandini Boulevard, and Downey Road operate at an acceptable Level of Service.

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**MITIGATION  
T-3**

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**Coordinate with Rail Companies.** Coordinate with rail road companies in removing obsolete rail spurs. Work to minimize traffic impacts to City streets from trucks using Hobart Yard facilities and other multi-modal transportation yards.

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**MITIGATION  
T-4**

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**Coordination with Metropolitan Transportation Authority.** Work with the Metropolitan Transportation Authority (Metro) to achieve the following:

- Implement the Metro’s Congestion Management Plan (CMP) within the City.
  - Continue to provide local and regional connections through Metro local and rapid bus lines.
  - Improve access to local Metro stations.
- 



**MITIGATION  
T-5**

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**Minimize Parking Impacts.** Work with businesses to develop creative strategies and solutions to address parking shortages. Require new development projects to meet the minimum parking standards in the Zoning Ordinance for both trucks and automobiles, including truck trailer storage, employee parking, and visitor parking.

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**MITIGATION  
T-6**

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**Soto Street Widening.** At the time properties along Soto Street are redeveloped or as otherwise dictated by City plans for the widening of Soto Street, require the dedication of rights-of-way to achieve the road standard for Soto Street established in

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the Circulation and Infrastructure Element. Complete the road widening project at the time a dequate rights-of-way have been acquired and/or dedicated.

**MITIGATION  
T-7**

**Interstate 710 Freeway Improvements.** Work with Caltrans on all plans, activities, and projects regarding Interstate 710 that may directly impact Vernon’s roadway facilities and traffic patterns. Coordinate with the Gateway Cities Council of Governments and Southern California Association of Governments on studies and programs regarding the improvements to the I-710 freeway.

**MITIGATION  
T-8**

**Other Improvements.** At Santa Fe Avenue and 38<sup>th</sup> Street, stripe an eastbound left-turn lane within existing right-of-way to provide additional intersection capacity.

***Level of Impact after Mitigation***

Impacts to the local and regional (Con gestion Management Program) circulation system remain **significant and unavoidable** after mitigation incorporation.

***References***

<sup>i</sup> Kunzman Associates . City of Vernon General P lan Update Traffic Impact Analysis. December 2012

<sup>ii</sup> Institute of Transportation Engineers. Trip Generation. 8<sup>th</sup> Edition. 2008





## Utilities and Service Systems 4.5

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This section of the Supplemental EIR examines potential impacts to utilities and service systems due to changes to the General Plan and Zoning Code and associated changes to the certified Program EIR. The Initial Study concluded that the adoption and long-term implementation of the Vernon General Plan update does not have the potential to exceed wastewater treatment requirements, require the construction or expansion of water, wastewater, or storm water drainage facilities. Implementation of the General Plan update will also have adequate capacity to serve the projected demand and comply with federal, state, and local statutes and regulations related to solid waste. The Initial Study indicated that impacts related to water supply sufficiency and landfill capacity could be potentially significant and have been analyzed herein.

### ***Environmental Setting***

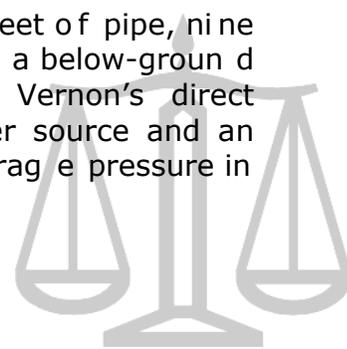
#### **Water Supply**

The certified General Plan EIR referenced 2005 Urban Water Management Plans (UWMP) for water supply analysis. Since the preparation of the certified EIR, the 2010 UWMPs have become available.

The fresh water retailer for most of the City of Vernon is the City's own Water Department. A portion of the northeast part of the City, however, receives water service from the California Water Service Company (Cal Water), and a small area in the southeast part of Vernon has water delivered by Marywood Mutual Water Company Number 3.<sup>1</sup>

The Water Department of the City of Vernon receives 63 percent of its primary potable water supply from local water, with the balance consisting of imported water and recycled water. At the time the certified General Plan EIR was prepared, the 2005 Urban Water Management Plan was referenced. Since then, the 2010 Urban Water Management Plan for Vernon has been prepared. As of 2010, the City received approximately 84 percent of its water supply from local groundwater and approximately 8 percent from the Central Basin Municipal Water District (CBMWD).<sup>2</sup> Potable water is sold and distributed to Vernon by the CBMWD, a public agency that acts as a wholesaler to retail water agencies consisting of 24 cities in southeast Los Angeles County. The CBMWD, in turn, purchases its water from the Metropolitan Water District of Southern California (MWD), which is the major supplier for Southern California.

The City's water distribution system consists of 250,000 linear feet of pipe, nine wells, seven ground-level reservoirs, one elevated tank, and a below-ground reservoir. The total storage capacity is 16 million gallons. Vernon's direct interconnection to the MWD provides both a supplemental water source and an emergency supply in the event of a major power outage. The average pressure in the distribution systems is about 75 pounds per square inch (psi).



#### 4.5 Utilities and Service Systems

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Cal Water's East Los Angeles District serves residential, industrial, and commercial customers, including all of unincorporated East Los Angeles as well as portions of the cities of Commerce, Montebello, Monterey Park, and Vernon. That portion of Vernon within Cal Water's jurisdiction consists of the area north of the Los Angeles River and east of a line parallel to and approximately 450 feet west of Indiana Street. This area is dominated by Burlington Northern Santa Fe's Hobart Rail Yard.

In 2003, industrial uses accounted for only 126 users, or 0.5 percent, of Cal Water's East Los Angeles District service connections, although because of the higher demand per connection for industrial customers, these industrial uses accounted for 2,000.6 total acre-feet (9.7 percent) used district-wide during the year. Vernon's share of water usage in the District constitutes an unknown but significant fraction of these industrial connections. During the ten-year period from 1994 to 2003, total water demand in the District rose an average of 0.28 percent annually, while industrial water demand in the District fell an average of 1.84 percent each year.

Water furnished to customers of Cal Water's East Los Angeles District is a combination of groundwater and purchased water imported from the Central Basin Municipal Water District. On average, purchased water satisfies 70 to 80 percent of the District's water requirements, with the balance supplied by groundwater from Cal Water's wells.

Cal Water's existing supplies and facilities in the East Los Angeles District are adequate to provide for projected demand through the year 2030. The 2010 Urban Water Management Plan for Cal Water's East Los Angeles District indicates that existing supplies and facilities will be adequate to provide for projected demand through the year 2040.<sup>3</sup> In addition, according to the 2010 UWMP, Cal Water intends to construct new wells in order to maximize groundwater production in the future. The District recognizes that its wells are no longer sufficient to produce its entire allowed pumping allocation, so it is actively pursuing plans to restore several wells to their full capacity and developing a new well to add capacity.

The Maywood Mutual Water Company #3 covers only small portions of the cities of Maywood, Bell, and Vernon. In total, Maywood Mutual #3 has approximately 2,000 service connections serving approximately 9,500 residents, along with some commercial and industrial customers. Maywood Mutual #3 has 30 service connections in Vernon, all industrial, which in 2006 used approximately 35 acre-feet of water. In 2007, Matheson Tri-Gas opened a plant in this area that was projected to use an additional 150 acre-feet per year of water, but since opening has actually used much less. Thus, the demand is projected to be 30 acre-feet per year based on usage from actual data from 2007. In total, then, the part of Vernon within Maywood Mutual Water Company #3 is projected to use 65 acre-feet of water per year.

Maywood Mutual #3 obtains all of its water supplies from three groundwater wells located in Maywood and Bell. Together these three wells produce approximately 1,500 acre-feet of water per year, although the exact amount fluctuates between about 1,400 acre-feet and 1,750 acre-feet per year, depending on demand. If

necessary, these wells could pump as much as 4,500 acre-feet per year. Currently, Maywood Mutual #3 purchases no water from outside sources, but has an agreement in place that would allow it to purchase up to 2,500 acre-feet of water per year from MWD. If Maywood Mutual #3 were to produce water at the maximum rate as well as purchase the maximum amount from outside sources, it could supply as much as 7,500 acre-feet of water in a year, more than four times current demand. Groundwater production is adequate to meet the current and projected demands of Maywood Mutual Water Company #3.

**Solid Waste**

Solid waste generated within Vernon is collected by a variety of private companies. The City does not provide solid waste collection services; businesses and residents must contract for their own waste disposal. City staff monitors solid waste generation, diversion, and disposal to help the City comply with state-mandated waste reduction goals. City staff also provides assistance to companies interested in recycling or reducing waste. In total, businesses in Vernon generated 258,365 tons of waste for disposal in the various landfills identified in Table 4.5-1 (Solid Waste Disposal Facilities Used by Vernon Waste Contractors, 2005). Additionally, the Refuse-to-Energy Facility in the city of Commerce received 1,806 tons of waste from Vernon to be converted into energy.

**Table 4.5-1  
Solid Waste Disposal Facilities Used by Vernon Waste Contractors, 2005**

| Facility Name                             | Location (City, County)     | Remaining Estimated Capacity (cubic yards; percentage of) | Estimated Closure Date | Permitted Maximum Disposal (tons/day) | Permitted Maximum Disposal (kilo-tons/year) |
|---|-----------------------------|---|------------------------|---------------------------------------|---|
| Antelope Valley Public Landfill I         | Palmdale, Los Angeles       | 2,000,000 (in 2003) 27.0%                                 | Mid-to-Late 2007       | 1,400                                 | 511   |
| Bradley Landfill West and West Extension  | Sun Valley, Los Angeles     | 4,725,968 (in 2002) 12.2%                                 | 6/1/2007               | 10,000                                | 3,650                                       |
| Chiquita Canyon Sanitary Landfill         | Santa Clarita, Los Angeles  | 35,800,000 (in 2003) 56.0%                                | 11/24/2019             | 6,000                                 | 2,190                                       |
| El Sobrante Landfill                      | Corona, Riverside           | 158,857,714 (in 2006) 85.9%                               | 1/1/2030               | 10,000                                | 3,650                                       |
| Frank R. Bowerman Sanitary Landfill       | Irvine, Orange              | 59,411,872 (in 2006) 46.8%                                | 12/31/2022             | 8,500                                 | 3,102.5                                     |
| Olinda Alpha Sanitary Landfill            | Brea, Orange                | 38,578,383 (in 2005) 51.5%                                | 12/31/2013             | 8,000                                 | 2,920                                       |
| Prima Deshecha Sanitary Landfill          | San Juan Capistrano, Orange | 87,384,799 (in 2005) 50.5%                                | 12/31/2067             | 4,000                                 | 1,460                                       |
| Puente Hills Landfill                     | Industry, Los Angeles       | 49,348,500 (in 2006) 46.4%                                | 10/31/2013             | 13,200                                | 4,818                                       |
| Simi Valley Landfill and Recycling Center | Simi Valley, Ventura        | 23,201,173 (in 2005) 53.3%                                | 12/1/2033              | 3,000                                 | 1,095                                       |
| Sunshine Canyon                           | Sylmar,                     | 17,015,625 (in 2006)                                      | 1/31/2013              | 6,600                                 | 2,409                                       |

## 4.5 Utilities and Service Systems

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|   |                        |                              |          |       |         |
|---|------------------------|------------------------------|----------|-------|---------|
| SLF County Extension                    | Los Angeles            | 45.6%                        |          |       |         |
| Sunshine Canyon City Landfill Unit 2    | Sylmar, Los Angeles    | 13,441,300 (in 2003)<br>100% | N/A      | 5,500 | 2,007.5 |
| Lancaster Landfill and Recycling Center | Lancaster, Los Angeles | 19,088,739 (2006)<br>71.6%   | 8/2/2012 | 1,700 | 620.5   |

Primary Source: *Draft EIR - Antelope Valley Public Landfill CUP*. City of Palmdale. December 2005.  
Other sites: California Integrated Waste Management Board, 2007.

As indicated in the table, all but two of the 12 landfills have scheduled closure dates within the time frame of the General Plan update, although Orange County is currently moving forward with expansion plans for both the Bowerman and Olinda Alpha landfills, which would extend the capacities and effective lives of these facilities.

Throughout California and in urban areas in particular, diminishing landfill space is a continuing concern. In response, the California Integrated Waste Management Act of 1989 (AB 939) was passed, mandating local governments to develop a long-term strategy for the management and diversion of solid waste, and requiring cities and counties to divert 50 percent of their solid waste (relative to the baseline year). According to the State Integrated Waste Management Board, Vernon diverted 57 percent of its waste in 2002. The estimated diversion rate for 2003 is 56 percent, and 53 percent for 2004.

### ***Thresholds for Determining Significance***

For the purpose of this Supplemental EIR, a significant impact will occur if implementation of the project would:

- A. Not have sufficient water supplies available to serve the project from existing entitlements and resources, or new or expanded entitlements needed.
- B. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

### ***Environmental Impacts***

#### **Impact 4.5.A Water Supply**

The certified General Plan EIR found that impacts related to sufficient water supply will be less than significant. The certified General Plan EIR analysis indicates that new development will replace older, less efficient buildings in the built out city with modern buildings using more efficient plumbing fixtures. In addition, implementation of the previous General Plan update and revised Zoning Ordinance would result in a decrease in overall building square footage citywide of 1.2 million square feet. The certified General Plan EIR determined that because the future mix of land uses will be similar, older buildings will be replaced by newer more efficient

buildings, and there is an anticipated 1.2 million square foot decrease in development, future demand for domestic water is not anticipated to increase beyond current levels.

The certified General Plan EIR references the City's 2005 Urban Water Management Plan (UWMP). According to the 2005 UWMP, by 2025 the number of acre-feet produced from wells is not expected to increase substantially, and the amount purchased from CBMWD is expected to increase from 3,350 acre-feet to 4,350 acre-feet. By 2025, Vernon's water supply profile is projected to be 28.3 percent from groundwater, 15.3 percent from CBMWD, and 56.4 percent from recycled sources.

According to the 2010 UWMP, by 2035, Vernon's water supply profile is projected to be 36.7 percent from groundwater, 9.8 percent from CBMWD, and 53.5 percent from recycled sources. Total projected supply in the normal year, single dry year, and multiple dry year scenarios exceed projected demand within Vernon.<sup>4</sup> Therefore, impacts will remain consistent with the analysis provided in the certified General Plan EIR as **less than significant**.

### **Impact 4.5.B Solid Waste**

The certified General Plan EIR found that impacts related to landfill capacity will be less than significant. Overall development in Vernon will decrease by approximately 1.2 million square feet over the life of the certified General Plan update. The certified General Plan EIR determined that the mix of future uses is expected to be similar to existing conditions. Due to the anticipated decrease in the total amount of development in Vernon, solid waste generation is not expected to change.

According to the Cal Recycle Solid Waste Characterization Database, retail/service/commercial uses can generate up to 3.3 tons per employee per year of solid waste. Manufacturing uses can generate up to 3.1 tons per employee per year. Although the disposal rate for retail/service/commercial uses is higher than that of manufacturing, the Southern California Association of Government's (SCAG) Employment Density Study shows that for Los Angeles County, the average employees per square foot of retail, service, and office uses are lower than that of manufacturing uses.<sup>5</sup> Therefore, with the addition of the commercial overlay, future commercial development will replace older manufacturing and industrial uses, reducing the amount of solid waste generated by the City as a whole. Impacts will remain consistent with the analysis provided in the certified General Plan EIR as **less than significant**.

### **Mitigation Measures**

Impacts will be less than significant at the programmatic and individual project levels, and no mitigation is required.



## ***Level of Significance after Mitigation***

None

## ***References***

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- <sup>1</sup> The sources of information for this section are as follows: *2002 Annual Report of the City of Vernon – Public Works & Water Sections*. City of Vernon, 2002. *2005 Urban Water Management Plan*. City of Vernon. December, 2005.
- <sup>2</sup> Civiltec Engineering, Inc. *City of Vernon 2010 Urban Water Management Plan: Volume 1 – Report*. June 2011.
- <sup>3</sup> California Water Service Company. *2010 Urban Water Management Plan: East Los Angeles District*. June 2011.
- <sup>4</sup> Civiltec Engineering, Inc. *City of Vernon 2010 Urban Water Management Plan: Volume 1 – Report*. June 2011.
- <sup>5</sup> The Natelson Company. Inc., *Employment Density Study*. October 31, 2001.



|                                     |          |
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## Alternatives 5.0

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Section 15126.6 of the CEQA Guidelines requires that an EIR describe a “range of reasonable alternatives” to a project which would “feasibly obtain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” The impacts associated with each alternative are compared to the impacts of the proposed project. Because the analysis in the certified EIR indicates that project-related significant impacts can be fully mitigated and that unavoidable significant impacts result from cumulative considerations (project impacts combined with growth activity in the region), the range of alternatives is limited. The analysis and conclusions contained in this Supplemental EIR is consistent with that of the certified EIR. Therefore, this section will evaluate the same alternatives. Alternatives evaluated in this EIR are:

- Alternative 1: No Project/Existing General Plan (required by Section 15126.6[e] of the CEQA Guidelines)
- Alternative 2: Additional railway/roadway grade separations
- Alternative 3: Zoning Ordinance provisions that allow warehousing facilities of less than 50,000 square feet citywide
- Alternative 4: No truck and freight terminal overlay

### ***Alternative Project Location***

Section 15126.6(f)(2) states that an EIR should determine whether some or all of the project significant effects could be avoided or substantially lessened by siting the project at an alternative location. Because the subject project encompasses the entire City of Vernon and unincorporated properties within the planning area, an alternative location does not represent a feasible project alternative; this alternative is therefore dismissed from further consideration.

### **Alternatives Considered but Rejected**

In the course of identifying project alternatives during preparation of the certified EIR, the City considered but rejected from further consideration the widening of Santa Fe Avenue throughout the City. The City rejected the widening of Santa Fe Avenue as a feasible alternative because almost all buildings along this key corridor have been constructed to the front property line. Acquisition of additional rights-of-way would involve the removal or significant narrowing of sidewalks and possibly removal of buildings. This action would create unsafe conditions along one of the roadways in the City where commercial business activity is to be focused to support the needs of the worker population; the alternative is therefore rejected.

A second alternative considered but rejected as infeasible is the widening of Soto Street along its entire stretch through Vernon. The Circulation and Infrastructure Element already provides for increased road width along Soto Street from Bandini Boulevard to the north City limit. Specifically, the Soto Street/26th Street intersection would be improved to increase capacity. Similar to Santa Fe Avenue, portions of Soto Street south of Bandini Boulevard have buildings constructed to the

front property line. Acquisition of additional rights-of-way would involve the removal or significant narrowing of sidewalks and possibly removal of buildings. In addition, the focused General Plan and Zoning Ordinance update proposes expansion of the commercial overlay to encompass Soto Street north of Fruitland Avenue. Therefore, this action would create unsafe conditions along a roadway where commercial activity is to be focused and involve costly right-of-way acquisition and therefore is rejected.

The City also considered the widening of the two blocks of E. Slauson Avenue that pass through Vernon, between S. Boyle Avenue and the Union Pacific Railroad line, to five or six lanes. Slauson Avenue is a major regional roadway, and any improvements to enhance capacity and traffic movement would require coordination among the many cities and Los Angeles County Public Works. While the City supports any regional plans developed to improve this roadway, the traffic study prepared in conjunction with the certified EIR concluded that the City's isolated action of addressing the two blocks within Vernon would not achieve measurable local improvements. In addition, the focused General Plan and Zoning Ordinance update proposes expansion of the commercial overlay to encompass this area.

Lastly, the City considered reorienting parallel streets as one-way streets to improve traffic flow. However, this alternative was rejected because Vernon's street system lacks an adequate grid structure to allow for such traffic flows to function properly and efficiently.

### ***Alternative 1: No Project***

This alternative is analyzed within the certified EIR and this Supplemental EIR as it is required under CEQA Guidelines Section 15126.6(e). According to Section 15126.6(e)(2) of the CEQA Guidelines, the no project analysis shall discuss, ". . . what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." This alternative assumes that the focused General Plan Zoning Ordinance update would not be adopted and implemented. Instead, the Vernon planning area would continue to be redeveloped according to the existing land use map and apply with current zoning regulations as described in the certified EIR. The General Plan updated analyzed in the certified EIR included the establishment of a Commercial Overlay District and the elimination of the 2009 Rule requiring all businesses that have nonconforming parking and/or loading facilities to achieve conformity by 2009. The No Project alternative would have resulted in the continued implementation of the 2009 Rule and the General Plan land uses without the Commercial Overlay.

In particular, the current Commercial Overlay would remain in effect; the focused General Plan and Zoning Ordinance update would replace the current Commercial Overlay with two expanded C-1 and C-2 Overlays along Santa Fe Avenue, Pacific Boulevard, Soto Street north of Fruitland Avenue, East Slauson Avenue, and along the eastern boundary of the City. Also, the No Project alternative would not involve

establishment of a Truck and Freight Terminal north of 37<sup>th</sup> Street west of Downey Road and north of the Los Angeles River east of Downey Road.

As discussed in Section 3.0 – Project Description of this EIR, the focused General Plan and Zoning Ordinance update provides for continuation of long-established land use policy and maintaining Vernon as an exclusively industrial city with limited housing and the possibility of commercial. Because the updated General Plan does not provide for any increase in permitted land use intensities, the City assumes that trends over the last ten years of an actual decline in building square footage citywide would continue under either current General Plan policy or the updated General Plan. Future development will result in newer buildings with reduced lot coverage due to setback and parking requirements, consistent with current zoning regulations.

### **Comparison of Impacts to Proposed Project**

The No Project alternative analyzed in the certified EIR has the potential to accelerate privately initiated reuse and redevelopment activity due to the application of the 2009 Rule and thereby, possibly to reduce overall building area in Vernon. The certified EIR determined that depending on the types of development proposed over the long term, reduced development citywide would reduce vehicle trips and associated air emissions and decrease demand for potable water. Industrial use comprises much of Vernon and the extent of businesses using or storing hazardous materials could be expected to remain, depending upon the individual new uses established over the long term. The certified EIR determined that the overall level of impact could be slightly lower than that associated with the proposed project.

The continued application of the 2009 Rule has the potential to improve traffic flow on City streets as on-street loading activity will be prohibited and on-street parking will be minimized due to the enforcement of off-street parking requirements. In this regard, the No Project Alternative was considered environmentally superior to the proposed project.

With regard to noise impacts, almost all local impacts are associated with regional traffic noise and rail traffic, neither of which would be expected to be affected by the No Project scenario. No change in impact would result.

The certified General Plan Land Use plan designates the entire city as Industrial with the possibility of commercial within the designated Commercial Overlay. The proposed project includes the expansion and implementation of two commercial overlay zones and the establishment of a Truck and Freight Terminal Overlay Zone. The focused General Plan and Zoning Ordinance update does not propose any changes in underlying land use designations or building intensities. Consistent with the certified General Plan, privately initiated reuse and redevelopment activity would result in overall reduced building area in Vernon with the enforcement of parking and setback requirements. Impacts related to air quality, hazards, noise,

traffic, and utilities for the No Project alternative would be equivalent to impacts associated with the proposed project.

### ***Alternative 2: Additional Railway/Roadway Grade Separations***

Many rail lines cross streets in Vernon at grade with frequent train activity between the ports of Los Angeles and Long Beach largely serving the Hobart Yard and other regional cargo redistribution facilities. Intense rail activity historically has created rail/roadway conflicts in Vernon. However, as stated in the certified EIR, the City has experienced a substantial decrease in rail traffic and associated congestion as a result of the 2002 completion of the expressway Alameda Corridor. The key environmental impact identified in the certified EIR was traffic. This alternative as analyzed in the certified EIR considers including specific policies in the General Plan to pursue rail/road grade separations at Bandini Boulevard/Downey Road, Pacific Avenue, Vernon Avenue, and District Boulevard/Downey Road.

During preparation of the certified EIR and currently, the Circulation and Infrastructure Element includes the following policy, which is non-specific regarding grade separations to be pursued:

POLICY CI-1.6: Continue to pursue grade separation for railroad crossings on designated streets.

### **Comparison of Impacts to Proposed Project**

The City has not conducted an analysis of the effects of providing grade separations at the above locations. However, such improvements would have the potential to improve traffic flow and possibly result in reduced air pollutant emissions due to reduced vehicle idling time while waiting for trains to cross roadways. With this assumption, the certified EIR determined that traffic and air quality impacts associated with Alternative 2 would be expected to be reduced relative to the General Plan update.

With regard to hazards, increased grade separations would reduce the risk of train/roadway vehicle accidents at those locations where separations would be provided. Risk of upset would be slightly reduced.

With regard to water use and landfill capacity, grade separations would have no effect.

With regard to noise impacts, the relative impact would depend upon the configuration of the grade separation. Because the grade separation locations cited above all pass through exclusively industrial areas where noise is not a major concern, the relative noise impacts would be equivalent to those associated with the project. Train horn noise would be reduced since train crossing would be eliminated.

With completion of the Alameda Corridor to Los Angeles and ongoing plans for the Alameda Corridor East, which will extend this dedicated freight rail line through the San Gabriel Valley, allowing for freight movement to the Inland Empire, emphasis will continue to be placed on using the Alameda Corridor instead of local rail lines. Based on information City of Vernon staff has received from responsible rail agencies, grade separations in Vernon are no longer being considered. Thus, this alternative may not be achievable during the life of the General Plan update.

Impact comparison of Alternative 2 to the proposed focused General Plan and Zoning Ordinance update is consistent with that of the certified General Plan update. Air quality, hazard, and traffic impacts associated Alternative 2 would be reduced with the inclusion of specific policies to pursue rail/road grade separations compared to the proposed project. Impacts with regard to noise and utilities will be equivalent. As determined by the certified EIR, emphasis will be placed on using the Alameda Corridor instead of local rail lines. Therefore, due to the uncertainty associated with future rail/road grade separation opportunities, this alternative may not be achievable.

### ***Alternative 3: Zoning Provisions to Permit Warehousing Citywide***

At the time of preparation of the certified EIR, the Zoning Code did not allow warehousing facilities to locate throughout the City, with the size of non-refrigerated warehouses limited to 50,000 square feet. The certified EIR discussed allowing warehouse use less than 50,000 square feet to locate anywhere in the City as Alternative 3. However, since certification of the Program EIR, the zoning code has been amended to allow warehouse use to locate within the Industrial zone, which encompasses the entire city. Therefore, Alternative 3 analyzed in the certified EIR is no longer applicable and will not be discussed further.

### ***Alternative 4: No Truck and Freight Terminal Overlay***

This alternative will consist of the removal of the Truck and Freight Terminal Overlay Zone from the proposed project. The proposed focused General Plan and Zoning Ordinance update includes a Truck and Freight Terminal Overlay Zone in the northern portion of Vernon (north of 37<sup>th</sup> Street and the Los Angeles River) to encompass over 1,065 net acres. According to the Vernon Zoning Ordinance, a freight terminal is where goods or freight are transferred or redistributed from one vehicle to another and a truck terminal is used primarily for storage, maintenance, or servicing of highway-type vehicles not limited to trucks and buses.

### **Comparison of Impacts to Proposed Project**

Elimination of the Truck and Freight Terminal Overlay Zone from the proposed project has the potential to reduce impacts related to traffic, air quality, and noise. Freight terminals include high turnover of transported goods, resulting in increased and continuous truck trips in the area. Diesel trucks are a major contributor to PM<sub>2.5</sub> concentrations, and truck and freight terminal uses could increase the number of diesel trucks on local roads, thereby increasing the area's PM<sub>2.5</sub> concentrations.

Overall, local and regional air quality impacts would be reduced under this alternative.

Truck and freight terminal use in Vernon is facilitated by the use of heavy-duty trucks delivering products to and from the facility. Because this is the functional nature of truck and freight terminals and industrial and warehouse uses may not require as much direct trucking, the impact on the transportation system may be slightly reduced without the allowance of truck and freight terminal use in the northern portion of the city.

The largest contributor to ambient noise in Vernon is vehicle traffic, especially that of heavy-duty trucks. Additional noise is created at many of the industrial sites in the City. Truck and freight terminal uses will contribute to noise from the delivery system inherent in their operations, with large trucks entering the City for deliveries and pick-ups. On site, most noise is generated by loading dock operations, trucks entering and leaving the area, and mechanical equipment located both inside and outside the building. As truck and freight terminal uses may have higher levels of noise on site associated with the continuous loading and unloading of goods, noise impacts would be slightly reduced without the allowance of truck and freight terminal use.

Many industrial facilities in Vernon use and store hazardous materials. Businesses are required to obtain hazardous materials permits for keeping those materials at the business. In the Industrial (I) zoning district, hazardous waste facilities are permitted subject to a conditional use permit. The uses, whether warehousing, manufacturing, or truck and freight terminal would be subject to the same local, state, and federal regulations regarding hazardous materials. Because a similar amount and type of hazardous materials would likely be present in the planning area under this alternative, this alternative would result in a similar impact related to hazards, which is less than significant.

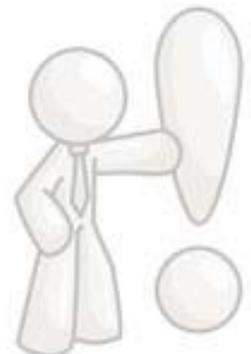
Trucking and freight terminal uses are relatively low impact on water and solid waste systems, in comparison to many industrial uses. Industrial uses have the potential to be very water intensive, especially if water is used for cooling in an industrial process. Truck and freight terminals, in comparison, generally use less water. Additionally, because manufacturing does not occur on site with truck and freight terminal uses, the level of waste generated would be comparably less. The primary waste product from truck and freight terminal activities is likely to be packaging materials and waste from the repair and maintenance of vehicles. Overall, the impact on utilities (excluding roads) would be slightly increased if truck and terminal uses are not allowed.

### ***Relative Comparison of Impacts***

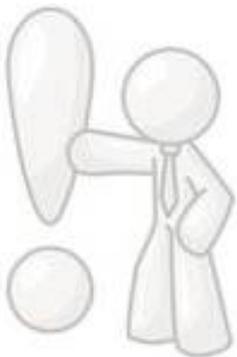
Table 5-1 summarizes the relative impacts of each of the four project alternatives compared to the proposed project.

**Table 5-1  
Comparison of Alternatives to the Project**

| Alternative  | Issue and Impact Relative to the Project |                         |                         |                         |                         |
|--|--|-------------------------|-------------------------|-------------------------|-------------------------|
|  | Air Quality                              | Hazards                 | Traffic                 | Water/Landfills         | Noise                   |
| Alternative 1:<br>No Project                                   | Impact equivalent                        | Impact equivalent       | Impact equivalent       | Impact equivalent       | Impact equivalent       |
| Alternative 2:<br>Grade Separations                            | Impact slightly reduced                  | Impact slightly reduced | Impact slightly reduced | Impact equivalent       | Impact equivalent       |
| Alternative 3:<br>Allow Warehousing                            | N/A                                      | N/A                     | N/A                     | N/A                     | N/A                     |
| Alternative 4:<br>No Truck and Freight Terminal Zoning Overlay | Impact slightly reduced                  | Impact equivalent       | Impact slightly reduced | Impact slightly reduced | Impact slightly reduced |



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## Analysis of Long Term Effects 6.0

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CEQA requires the discussion of the cumulative impacts, growth-inducing impacts, and long-term impacts of proposed projects. The following sections address these issues as they relate to implementation of the City of Vernon General Plan update and revised Zoning Ordinance.

### ***Cumulative Impacts***

The CEQA Guidelines define cumulative effects as “two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts.” The CEQA Guidelines further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely related past, present, and reasonably foreseeable future projects (Section 15335). The CEQA Guidelines allow for the use of two alternative methods to determine the scope of projects for the cumulative impact analysis:

**List Method** - A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

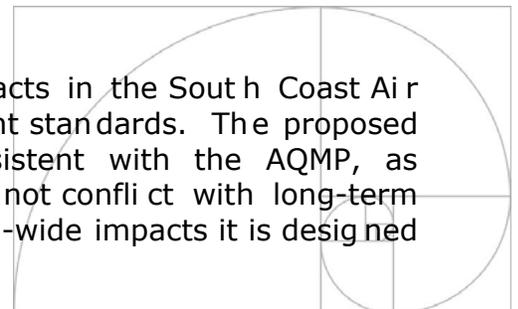
**Regional Growth Projections Method** - A summary of projects contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (Section 15130).

The certified General Plan EIR utilized the List method for cumulative impact analysis due to the updated General Plan and revised Zoning Ordinance addressing all properties in the City, projected decline in development square footage, and stability in housing population. The Cities of Huntington Park, Commerce, Bell, Maywood, and Los Angeles, and the County of Los Angeles were consulted in the preparation of a list of large development projects. Cumulative impacts associated with the adoption and implementation of the certified General Plan EIR was analyzed when considered with planned developments in the surrounding communities.

The following discusses the cumulative impacts associated with adopting and implementing the proposed Vernon General Plan and zoning ordinance update.

### **Air Quality**

The context for assessing cumulative air quality impacts in the South Coast Air Basin is in terms of national and state criteria pollutant standards. The proposed General Plan and zoning ordinance update is consistent with the AQMP, as discussed in Section 4.1; therefore, the project will not conflict with long-term implementation of the AQMP and the cumulative, Basin-wide impacts it is designed to reduce.



The City will continue to evaluate short-term, construction-related impacts and long-term impacts for discretionary land use projects, so that best available control measures can be applied, where warranted, to minimize the effects of individual development projects. Thresholds recommended by the SCAQMD will continue to be the preferred criteria for determining the level of impact significance at the project level of review. The proposed project would not authorize any particular project or any exemptions from or conflicts with the AQMP and would not result in any direct air quality impacts.

However, as determined in the certified General Plan EIR, potential development projects in the surrounding area would represent substantial new development to the region that will attract new vehicle trips and generate associated pollutant emissions. Despite land use policies and practices and regional efforts to reduce pollutant emissions, emissions associated with regional development, when added to existing pollutant emissions, are anticipated to result in continued overall emission levels in excess of SCAQMD thresholds. Although Vernon and other jurisdictions will be required to adopt and implement measures to work toward AQMP air quality improvement goals, the increase is cumulatively considerable.

Therefore, consistent with the certified General Plan EIR, the proposed project's contribution to cumulative air quality impacts would be **significant and unavoidable**. As the proposed General Plan and zoning ordinance update would result in reduced development intensity compared to the certified General Plan EIR, cumulative impacts as a result of the proposed project would not be increased.

#### Hazards and Hazardous Materials

The context for assessing cumulative hazardous materials impacts involves existing and potential development within the planning area and those surrounding areas that could result in the transport, use, or disposal of hazardous materials or wastes. Typical uses would include industrial activities, utility providers, and waste management services.

As future development occurs within the planning area, the possibility exists that industries using hazardous materials will locate proximate to sensitive uses. The cumulative impact of regional development on public safety is potentially significant, but can be reduced to a less than significant level through implementation of the mitigation measures included in the certified Program EIR, including continued implementation of the City of Vernon's Hazardous Materials Monitoring Program and continued implementation activities to assure that hazardous wastes generated by Vernon businesses are handled and disposed of according to federal, state, and local regulations. Vernon will continue to require every business to maintain a list of material safety data sheets for the chemicals and other hazardous materials used or stored on site in accordance with law, and to provide that list to the Fire Department and Environmental Health Department. Enforcement of state, county, and local hazardous material regulations will reduce significant public health hazards to a less than significant level. As a result, consistent with the certified Program EIR, implementation of the focused General

Plan and zoning ordinance update will result in no significant cumulative impact with respect to hazards and hazardous materials.

### Noise

Implementation of the proposed focused General Plan and zoning ordinance update would not generate new stationary noise sources outside of the planning area and would not, therefore, result in cumulatively considerable noise impacts involving stationary sources. Additional traffic volumes associated with future growth in the planning area would combine with regional traffic on major, inter-jurisdictional roads and highways leading to Vernon that would contribute to cumulative effects involving roadway noise. Consistent with the findings of the certified EIR, the level of traffic noise attributable to Vernon-based trips that will occur outside of the planning area will increase gradually, over a long period of time, and would not result in cumulatively considerable changes in roadway noise levels in the context of regional traffic growth.

### Utilities

The analysis in Section 4.5 - Utilities assesses the cumulative, long-term impact of growth within the planning area on water supply and solid waste disposal capabilities. As concluded for both of these issue areas and consistent with the certified EIR, impacts will be less than significant.

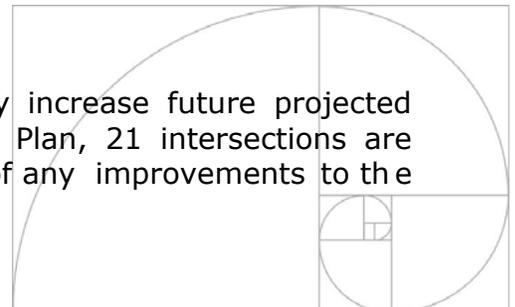
Cities in the immediate area use the same water sources and same landfills as Vernon. Both water supplies and land fill space are diminishing resources in the region. Conservation and recycling efforts are vigorously pursued at local and state levels to prolong the life of these resources. Foresight and planning represent important strategies to address long-term shortfalls. However, over the life of the focused General Plan and zoning ordinance update, these resources are anticipated to become increasingly stressed. The certified EIR concluded that conservatively, cumulative long-term impacts should be considered significant.

### Transportation

The SCAG regional traffic model was used to assess impact accounts for regional cumulative growth. Based on the analysis contained in Section 4.4 - Transportation of this EIR, long-term implementation of the focused General Plan and zoning ordinance update and cumulative regional growth will result in the reduction of the level of service (LOS) to LOS F from the previous 2030 General Plan prior to mitigation at the following intersections:

- Soto Street at Vernon Avenue
- Downey Road at Bandini Boulevard

Although the proposed update would not substantially increase future projected 2035 impacts compared to the current 2030 General Plan, 21 intersections are projected to operate at LOS E and F in the absence of any improvements to the circulation network.



Implementation of mitigation measures identified in the Program EIR may allow the City to maintain its level of service objectives for the local road network over the long term. Funding has been secured and implementation of the Los Angeles County Automated Traffic Surveillance and Control System (ATSAC) has begun. However, no funding has been identified for mitigation measures listed in the Program EIR. The only other funded improvement is the extension of 26th Street, which has been completed since 2007. Further, the responsibility of funding and completing I-710 improvements lies with Caltrans. As such, construction of the bridge and freeway improvements cannot be guaranteed as traffic impact mitigation measures for the purposes of this EIR. The number of intersections projected to operate at a level of service worse than the City's adopted minimum of LOS D will remain the same as the certified General Plan, but will increase from 16 intersections during existing conditions to 18 with implementation of the proposed General Plan and zoning ordinance update. The proposed General Plan Update will not result in substantial changes in long-term traffic impacts when compared to the analysis provided in the certified EIR, as discussed in Section 4.4. Impacts will remain **significant and unavoidable**.

### ***Growth-Inducing Impacts***

Growth-inducing effects include ways in which the proposed General Plan and zoning ordinance update could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. A prime example is a major infrastructure project or road extension which provides urban service capacities to currently undeveloped areas, thus removing an obstacle to population growth.

The proposed General Plan and zoning ordinance update is specifically intended to provide for the orderly growth of the planning area to achieve economic, environmental and quality of life benefits. Nothing in the General Plan and zoning ordinance update proposes new infrastructure systems to facilitate growth of undeveloped areas that were not proposed in the existing General Plan. There are no proposed policies, regulations, or ordinances that are part of the project or implied by the General Plan and zoning ordinance update that will encourage or enable significantly higher levels of growth than have been anticipated in regional forecasts by SCAG. Improvements to the road, storm drain, potable water, and sewer systems, including those listed in this Supplemental EIR, are intended to achieve desired levels of service as growth occurs, rather than facilitate growth beyond what is planned for in the existing General Plan. Projects permitted pursuant to land use policy will provide for additional housing, an emergency shelter, an expanded commercial district, slaughtering and rendering use, and trucking and freight terminals.

### ***Energy Conservation***

#### **Introduction**

This energy conservation analysis has been prepared pursuant to California Public Resources Code Section 21100(b)(3) and Appendix F of the CEQA Guidelines.

The purpose of this analysis is to assess the short- and long-term energy demand of the proposed project, identify proposed and required conservation measures, and assess the extent to which the proposed project would conserve energy. Project energy demand will not be wasteful, inefficient, or unnecessary if it does not increase energy demand over typical construction and operating requirements.

Appendix F of the State CEQA Guidelines states that the goal of assessing energy conservation in a project is to ensure the wise and efficient use of energy. Energy efficiency is achieved by decreasing energy consumption, decreasing reliance on fossil fuels, and increasing reliance on renewable energy sources. The guidelines for analysis of energy conservation provided in Appendix F of the State CEQA Guidelines are provided herein.

## **CEQA Appendix F: Energy Conservation**

### **I. Introduction**

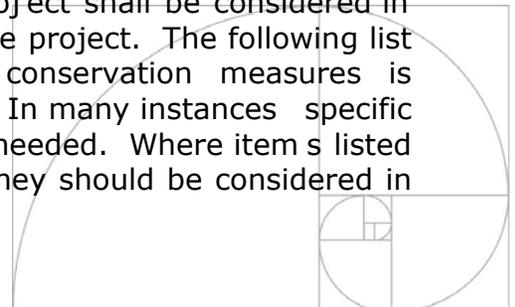
The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) decreasing overall per capita energy consumption,
- (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and
- (3) increasing reliance on renewable energy sources.

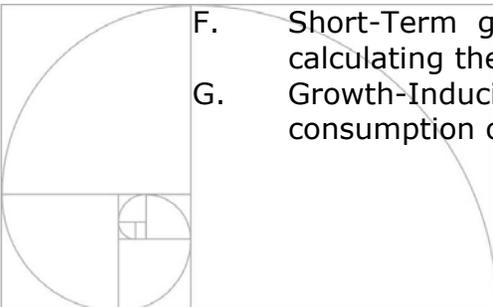
In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). Energy conservation implies that a project's cost effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, cost effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving the project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

### **II. EIR Contents**

Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. The following list of energy impact possibilities and potential conservation measures is designed to assist in the preparation of an EIR. In many instances specific items may not apply or additional items may be needed. Where items listed below are applicable or relevant to the project, they should be considered in the EIR.



- A. Project Description may include the following items:
1. Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.
  2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
  3. The effects of the project on peak and base period demands for electricity and other forms of energy.
  4. The degree to which the project complies with existing energy standards.
  5. The effects of the project on energy resources.
  6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.
- B. Mitigation Measures may include:
1. Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.
  2. The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, increase water conservation and reduce solid waste.
  3. The potential for reducing peak energy demand.
  4. Alternative fuels (particularly renewable ones) or energy systems.
  5. Energy conservation which could result from recycling efforts.
- C. Alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy.
- D. Unavoidable Adverse Effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.
- E. Irreversible Commitment of Resources may include a discussion of how the project preempts future energy development or future energy conservation.
- F. Short-Term gains versus Long-Term Impacts can be compared by calculating the project's energy costs over the project's lifetime.
- G. Growth-Inducing Effects may include the estimated energy consumption of growth induced by the project.



## Energy Demand

Short-term energy demand would result from development construction pursuant to implementation of the proposed project. This would include energy demand from worker and vendor vehicle trips and construction equipment usage. Long-term energy demand would result from operation of various development types pursuant to implementation of the proposed General Plan and zoning ordinance update. This would typically include energy demand from vehicle trips, electricity and natural gas usage, and water and wastewater conveyance. This section generally describes the energy needs of these activities.

## Construction Activities

The proposed General Plan and zoning ordinance update will not directly result in construction of any development or infrastructure; however, future development supported by the policies of the General Plan will result in short-term energy demand. Short-term energy demand will occur during site preparation, grading, building construction, paving, and painting activities associated with new development. Energy demand results from use of equipment, worker, vendor, and hauling trips.

## Operational Activities

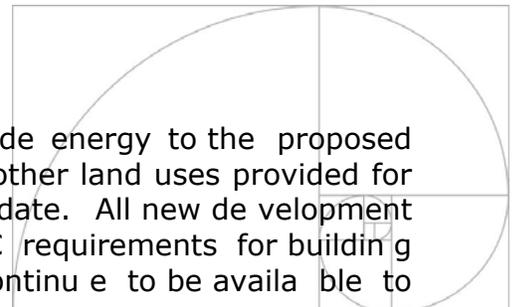
The proposed General Plan and zoning ordinance update will not directly result in operation of any development or infrastructure; however, future development supported by the policies of the General Plan will result in long-term energy demand. Long-term energy demand will occur primarily from mobile sources, electricity and natural gas use, and water and wastewater.

## Mobile Sources

Mobile source energy demand primarily is associated with individual vehicle energy demand and therefore gasoline and diesel fuel primarily as well as electricity increasingly for electric vehicles. Mobile source energy demand may also be associated with public transportation such as buses and trains associated with natural gas, diesel fuel, or electricity. Of all operational energy demands, the proposed General Plan and zoning ordinance update seeks most to reduce the energy demand of mobile sources through improved land use and circulation network planning to reduce reliance on individual vehicles and promote use of public transportation as well as non-motorized transportation such as walking and biking. By seeking to reduce the amount of individual vehicle usage, the proposed General Plan and zoning ordinance update would achieve reductions in mobile source operational energy demand.

## Electricity and Natural Gas Use

Electricity and natural gas would be required to provide energy to the proposed development of residential, commercial, industrial and other land uses provided for in the proposed General Plan and zoning ordinance update. All new development and redevelopment would be subject to current CBC requirements for building energy efficiency. Other opportunities would also continue to be available to



existing and new development to incorporate energy saving features or renewable energy sources into buildings.

### **Water and Wastewater**

Electricity will indirectly be required to treat and convey water to and convey wastewater from development that implements the proposed General Plan and zoning ordinance update. Pursuant to the Water Conservation in Landscaping Act, outdoor water use will continue to be regulated for new development to plan landscaping accordingly and conserve water.

### **Energy Conservation**

The project will be subject to state water efficiency regulations pursuant to the 2011 California Building Code (CBC) that will reduce long-term project energy demand. These requirements would reduce wasteful, inefficient, and unnecessary consumption of energy over the long-term.

### **California Building Code**

Pursuant to the 2010 CBC CALGREEN requirements, the project will be subject to the following requirements:

- 20 percent reduction in water demand (5.303.2)
- 20 percent reduction in wastewater discharges (5.303.4)

### **Reduce Water and Wastewater Demand (5.303.2 & 5.303.4)**

The minimum 20 percent reduction in water demand and wastewater discharges would decrease indoor water demand. This would result in a concurrent reduction in energy demand to supply, treat, and convey water and wastewater.

### **Conclusion**

The conservation of energy will result from implementation of the CBC, Regional Greenhouse Gas Inventory and Reduction Plan, and General Plan policies seeking to maximize the use of clean and alternative fuel and power. With implementation of existing regulations and proposed policies, energy demand for development that implements the proposed General Plan and zoning ordinance update will not be wasteful, inefficient, or unnecessary.

### ***Significant Irreversible Environmental Changes***

Over the long term, development projects pursued consistent with updated General Plan land use policy and the revised Zoning Ordinance provisions will result in the consumption of non-renewable resources such as construction materials and, once projects are operational, the use of energy resources for heating, cooling, industry, transportation, etc. This use will have an irreversible effect on such resources.

The updated General Plan and revised Zoning Ordinance could result in development of urban uses in the few remaining lots in the City that are currently

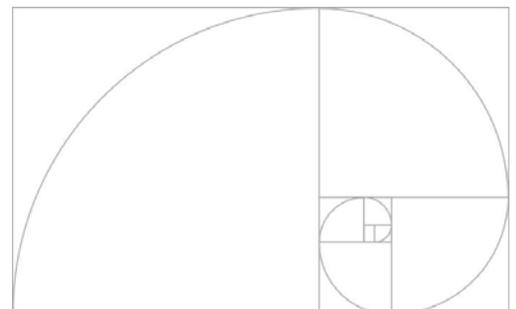
vacant. Once developed, reversion to a less urban use or open space is highly unlikely.

The irreversible commitment of limited resources is inherent in any development project, or in the case of the General Plan update, cumulative development projects. Resources anticipated to be irreversibly committed over the approximate 20-year life of the General Plan update include, but are not limited to, lumber and other related forest products; sand, gravel, and concrete; petrochemicals; construction materials; steel, copper, lead and other metals; and water. Implementation of the General Plan update represents a long-term commitment to the consumption of fossil fuel oil and natural gas.

### ***Unavoidable Significant Environmental Impacts***

Consistent with the certified General Plan EIR, implementation of the updated General Plan and revised Zoning Ordinance will result in the following significant, unavoidable project-level and cumulative impacts:

- Air Quality: Cumulative
- Traffic: Cumulative impact on surface streets and Interstate 710
- Utilities: Cumulative impact on water and landfill resources





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| 7 | Effects Found Not to be Significant |
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## **Effects Found Not to Be Significant 7.0**

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CEQA Guidelines Section 15128 requires a statement indicating the reason that various possible significant effects are determined not to be significant and therefore are not discussed in the EIR. The Initial Study prepared for the City of Vernon Focused General Plan and Zoning Ordinance Update and circulated on September 13, 2012 determined that the impacts listed below would not occur or would be less than significant; therefore, these topics have not been further analyzed in this SEIR. Please refer to Appendix A (Initial Study) for explanations of the basis for these conclusions.

### **Aesthetics**

- Scenic Vistas – No Impact
- Scenic Resources – No Impact
- Visual Character – No Impact

### **Agriculture Resources**

- Farmland Mapping and Monitoring Program – No Impact
- Agricultural Zoning and Land Use – No Impact
- Farmland Conversion – No Impact

### **Biological Resources**

- Sensitive Natural Communities – No Impact
- Wetlands – No Impact
- Wildlife Migration – No Impact
- Conservation Planning – No Impact

### **Cultural Resources**

- Historical Resources – Less than Significant Impact
- Archaeological Resources – Less than Significant Impact
- Paleontological Resources – No Impact
- Human Remains – No Impact

### **Geology and Soils**

- Surface Fault Rupture – Less than Significant Impact
- Strong Seismic Ground Shaking – Less than Significant Impact
- Liquefaction – Less than Significant Impact
- Landslides – No Impact
- Loss of Topsoil – Less than Significant Impact
- Expansive Soils – Less than Significant Impact
- Septic Tanks – No Impact

### **Hydrology and Water Quality**

- Water and Wastewater Standards – Less than Significant Impact
- Groundwater Supplies and Recharge – Less than Significant Impact

- On- and Off-Site Erosion – Less than Significant Impact
- On- and Off-Site Flooding – Less than Significant Impact
- Storm Drain Capacity and Runoff – Less than Significant Impact
- 100-Year Flooding and Housing – Less than Significant Impact
- Impedance or Redirection of 100-Year Flooding – Less than Significant Impact
- Dam or Levee Failure – Less than Significant Impact
- Seiche, Tsunami, or Mudflow – No Impact
- Stormwater Velocity and Runoff – Less than Significant Impact

### **Land Use and Planning**

- Division of Communities – No Impact
- Planning Conflicts – Less than Significant Impact
- Conservation Planning – No Impact

### **Mineral Resources**

- Loss of Mineral Resources – No Impact

### **Population and Housing**

- Population Growth – Less than Significant Impact
- Displacement of Housing – No Impact
- Displacement of People – No Impact

### **Public Services**

- Schools – Less than Significant Impact
- Parks – Less than Significant Impact
- Other Services – Less than Significant Impact

### **Recreation**

- Deterioration of Facilities – Less than Significant Impact
- Expansion of Facilities – Less than Significant Impact

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## Organizations and Persons Consulted 9.0

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None



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