Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
ENVIRONMENTAL IMPACT REPORT

PREPARED FOR:
City of Palmdale

PREPARED BY:
RBF Consulting
FINAL
ENVIRONMENTAL IMPACT REPORT

EXPANSION AREA AMENDMENT TO
THE REDEVELOPMENT PLANS FOR
THE MERGED PROJECT AREA

SCH NO. 2010091073

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May 2011

JN 10-107343
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1.0 Executive Summary
1.0 EXECUTIVE SUMMARY

California redevelopment law authorizes cities and counties to adopt and amend redevelopment plans intended to revitalize and rehabilitate blighted areas. Redevelopment plans provide a means for redevelopment agencies to encourage private reinvestment in blighted areas through provision of various forms of assistance. Redevelopment is intended to eliminate deficiencies and cause the comprehensive planning, redesign, and reconstruction of specific areas to facilitate a higher and better utilization of land. Redevelopment is also intended to increase construction activities and employment opportunities; provide economic stimulation through commercial growth and expansion; and to increase, improve, and preserve the City’s affordable housing stock and thereby make affordable housing available to persons of very low, low, and moderate income.

The City Council of the City of Palmdale created the Community Redevelopment Agency (CRA) in 1975 to address conditions of physical and economic blight within the City of Palmdale. Since the CRAs formation in 1975, the City Council has adopted four redevelopment projects areas throughout the City, added area to Project Area No. 1, and merged Project Area No. 2, Project Area No. 3, and Project Area No. 4 (“Existing Project Areas”). Following is a list of ordinances pertaining to Project Area No. 2, Project Area No. 3, and Project Area No. 4:

- Pursuant to Ordinance No. 337, adopted on July 25, 1978, the City Council of the City of Palmdale (“City”) adopted a redevelopment plan for the Redevelopment Project No. 2 Area (“Project Area No. 2”).

- Pursuant to Ordinance No. 491, adopted on March 10, 1983, the City Council of the City adopted a redevelopment plan for the Redevelopment Project No. 3 Area (“Project Area No. 3”).

- Pursuant to Ordinance No. 515, adopted on November 10, 1983, the City Council of the City adopted a redevelopment plan for the Redevelopment Project No. 4 Area (“Project Area No. 4”).

- The Redevelopment Plans for Project Area No. 2, Project Area No. 3, and Project Area No. 4 were amended by the City Council of the City pursuant to Ordinance Nos. 1042, 1043 and 1044 on March 24, 1994, which respectively, amended and restated in their entirety the Redevelopment Plans for Project Area No. 2, Project Area No. 3 and Project Area No. 4 and merged Project Area No. 2, Project Area No. 3 and Project Area No. 4 (“Merged Project Area”).

The Merged Project Area currently encompasses approximately 7,468 acres (11 percent) of the City’s total 66,995 acres.

1.1 PROJECT LOCATION

The existing Merged Project Area and proposed Expansion Area Amendment are located in the City of Palmdale, in northern Los Angeles County. The Merged Project Area is currently comprised of several non-contiguous areas totaling 7,468 acres. The proposed Expansion Area
1.2 PROJECT SUMMARY

The Community Redevelopment Agency (CRA) of the City of Palmdale adopted a resolution on August 4, 2010 accepting and approving a Preliminary Plan for the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area (Expansion Area Amendment or Proposed Project). The boundaries of the area proposed to be added with the Expansion Area Amendment were established through the Preliminary Plan, which was considered and approved by the City’s Planning Commission at its meeting on July 8, 2010. On January 13, 2011, the Planning Commission amended the boundaries to correct a technical issue. The Preliminary Plan identifies the boundaries of the proposed Expansion Area to the Merged Project Area, summarizes conditions of blight within the proposed Expansion Area, and provides the CRA’s approach to planning, project implementation, and financing of long-term redevelopment activities in the Merged Project Area, as amended.

The Proposed Expansion Area Amendment involves an amendment to the Redevelopment Plan for the Merged Project Area to add 7,787 acres to the Merged Project Area (Expansion Area), increasing the total acreage to 15,255 acres for the Merged Project Area. The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B) and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6.

Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan (Merged Plan). If adopted, the Merged Plan would allow the CRA to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area.

Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended. Therefore, the Redevelopment Plan for the Merged Project Area will incorporate and track the General Plan goals and land use designations.

Table 1-1, Proposed Expansion Area – Growth Potential Over Existing Conditions, provides the land uses and development potential for the proposed Expansion Area assuming development of vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. As indicated in Table 1-1, buildout of the remaining vacant/underutilized parcels in the proposed Expansion Area in accordance with the General Plan may result in an additional 1,732 residential dwelling units and 18,866,968 square feet of non-residential uses. This growth potential represents additional growth over year 2010 existing conditions if vacant and underutilized sites are developed to their full General Plan buildout capacity.
Table 1-1
Proposed Expansion Area – Growth Potential Over Existing Conditions

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Residential Dwelling Units</th>
<th>Non-Residential Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>341</td>
<td></td>
</tr>
<tr>
<td>Multiple-Family</td>
<td>1,391</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Residential</strong></td>
<td><strong>1,732</strong></td>
<td></td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>1,121,208</td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td>16,642,741</td>
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<tr>
<td>Public Facilities</td>
<td></td>
<td>103,019</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td><strong>Subtotal Non-Residential</strong></td>
<td><strong>18,866,968</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,732</strong></td>
<td><strong>18,866,968</strong></td>
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</tbody>
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**PROPOSED AMENDMENT**

The primary purpose of proposed Expansion Area Amendment is to alleviate conditions of blight in the Expansion Area. The CRA will accomplish this task through the implementation of the programs described below. The CRA is not, however, limited to these programs and may choose to modify these programs and adopt additional programs during the term of existence of the Expansion Area pursuant to the Redevelopment Plan for the Merged Project Area. All public and private activities or undertakings pursuant to or in furtherance of the proposed Expansion Area Amendment, constitute a single project for purposes of CEQA.

**Proposed Projects and Programs**

The following projects and programs have been identified in the proceedings related to the proposed Expansion Area Amendment, if approved:

- **Public Facilities and Infrastructure Improvements.** Public facilities and infrastructure improvements would involve replacing and upgrading public facilities and infrastructure to support existing and future development. Potential improvements include, but are not limited to, assisting with parks and recreation/community centers, street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, infrastructure assessments/plans, utility improvements, flood control and culverts, streetscape and landscape, and noise attenuation.

- **Transportation.** Transportation improvements would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.
• **Economic Development Activities and Infill Development.** Economic development activities to retain, expand, and attract businesses in the Expansion Area would complement the overall goals for urban revitalization of the area. The CRA would partner with property owners, tenants, and business owners to implement economic development activities. Potential activities include property owner, tenant and business owner participation; demolition, clearance and site preparation; relocation assistance; property acquisition and disposition; public and private cooperation; right of way acquisition; facade improvement programs; business outreach; Enterprise Zone administration; Foreign-Trade Zone administration; marketing and business support activities.

Direct activities proposed include the acquisition and assembly of adequately and inadequately sized lots for reuse and new development in order to facilitate private investment and reinvestment in the Expansion Area, demolition, site clearance, site preparation, and/or relocation assistance, as well as right-of-way acquisition.

Set aside funds such as loans and grants would be used to alleviate serious blighting conditions such as dilapidated roofs, faulty weather protection, code violations, and other physical blighting conditions or public improvements existing within the Expansion Area. Tax increment financing would be used for all public and private activities in furtherance of the redevelopment plan including, but not limited to, rehabilitation, business assistance, public improvements, and to improve facades in commercial and industrial areas in order to encourage new businesses to locate within the Expansion Area and to encourage private investment from new and existing businesses.

• **Environmental Remediation and Brownfields Revitalization.** Projects and programs would be implemented to mitigate environmental threats to public health and safety, and transform contaminated, underutilized properties, otherwise known as “brownfields” into productive assets of the community. These programs would help to address existing blighting conditions by improving impaired property values, stimulating private investment, and reducing significant risks to the health, safety, and welfare of Expansion Area residents and workers located near contaminated properties.

• **Affordable Housing.** The CRA would deposit 20 percent of the gross tax increment collected into the Low and Moderate Income Housing Fund for the creation and improvement of affordable housing. These funds would be used to increase, improve, and preserve the supply of low and moderate income housing in the community. Specific activities may include, but are not limited to, site acquisitions, developer subsidies for constructing affordable housing, identifying and developing infill housing, rehabilitating existing units and converting them to affordable units, and purchasing affordability covenants. Additionally, the City’s Neighborhood Improvement Program would be implemented within the Expansion Area.

Tax increment financing would be used to reduce/eliminate blighted factors in residential areas such as dilapidated structures, damaged and substandard exterior building materials, and homes lacking sufficient weatherproofing. The CRA would potentially purchase or provide loans to property owners to rehabilitate these structures and make them available to very low, low, and moderate income families. The CRA may be able to assemble vacant parcels and
dilapidated buildings for a consolidated affordable housing development that would provide additional housing opportunities.

### 1.3 PROJECT OBJECTIVES

The following goals and objectives have been established by the proposed Amended and Restated Redevelopment Plan for the Merged Project Area:

- To continue to contribute to the revitalization of blighted areas;
- To upgrade and revitalize commercial activity in the Project Area;
- To create a neighborhood shopping focus for surrounding neighborhoods;
- To stabilize and improve conditions in the neighborhoods surrounding the Project Area by expanding, improving and preserving the community's supply of low and moderate income housing;
- To provide adequate parking and improve circulation in the Project Area and surrounding areas;
- To provide an environment, which stimulates private investment;
- To improve the City's economic health, tax base and employment opportunities;
- To install, replace, and upgrade public facilities and infrastructure including parks and recreation, public safety improvements, acquisition of easements and public right-of-way, infrastructure assessments/plans, utility improvements, flood control, streetscape, landscaping and noise attenuation;
- To support and encourage cutting-edge, state of the art technology infrastructure development including but not limited to wi-fi, satellite and any other future technologies that may be developed in support of redevelopment, economic development and housing activities;
- To improve transportation infrastructure, including circulation upgrades, grade separation, traffic signals and street improvements;
- To support and encourage development of alternative energy sources;
- To retain, expand and attract businesses by partnering with property owners, tenants and business owners to implement activities such as demolition, clearance and site preparation; relocation assistance, property acquisition and disposition; public and private cooperation, right-of-way acquisition; façade improvements programs; business outreach; Enterprise Zone incentives; Foreign-Trade Zone incentives; and other marketing and business support activities;
• To implement programs and projects to mitigate environmental threats to public health and safety;

• To partner with Plant 42 and the aerospace contractors to address declining and obsolete buildings and hazardous materials and to ensure Plant 42 continues to directly and indirectly create and maintain jobs within the City;

• To promote the construction of the High Desert Corridor, the High Speed Rail, and any other future mass transit project, all for the purpose of expanding economic development opportunities and relieving traffic congestion throughout the region;

• To encourage, support and promote air service at the Palmdale Regional Airport;

• To encourage the provision high-density transit oriented housing and development opportunities through the implementation of the Palmdale Transit Village Specific Plan;

• To develop reliable and cost efficient energy through the Palmdale Power Plant project in order to attract businesses and private investment within the City;

• To provide for the acquisition of land and provision of relocation assistance and payments in support of redevelopment, economic development, and housing activities;

• To provide for the issuance of debt;

• To provide management of property under the ownership and control of the Agency; and

• To provide for the disposition of property for uses in accordance with the Redevelopment Plan.

1.4 SUMMARY OF PROJECT ALTERNATIVES

The analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the Proposed Project objectives. The following alternatives have been identified for analysis in this section:

• No Project Alternative. Under this Alternative, the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area would not be adopted or proceed. This Alternative serves as the “No Project” Alternative in accordance with CEQA Guidelines Section 15126.6(e).

• Reduced Development Alternative. Under this Alternative, the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area would be adopted; however, this Alternative assumes that development of the proposed Expansion Area would not occur in accordance with the buildout potential identified by the General Plan. This Alternative anticipates that future residential and non-residential development, with the exception of uses associated with Plant 42, would occur at lower
densities and intensities, consistent with historical development trends. The Reduced Development Alternative would involve the following:

- 835 additional residential units; and
- 15,651,385 additional square feet of non-residential uses.

When compared to the proposed project, this Alternative would involve the following:

- 897 fewer residential units; and
- 3,220,707 fewer square feet of non-residential uses.

### 1.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND PROJECT MITIGATION MEASURES

A summary of environmental impacts and project mitigation measures is presented below. The inventory of GPEIR mitigation measures and policies is provided in Section 1.6, which follows.

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<th>Project Mitigation Measures</th>
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<tr>
<td>Alterations to Human Population</td>
<td>The location, distribution, density, or growth rate of the project area's human population could be significantly altered.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
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<td></td>
<td>People could be displaced from existing housing within the project area.</td>
<td></td>
</tr>
<tr>
<td>Demand for Additional Housing</td>
<td>A significant demand for additional housing could be created.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td></td>
<td>No mitigation is required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td></td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could result in cumulative impacts involving the City’s population, demand for additional housing, and/or displacement of people.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>TRANSPORTATION AND CIRCULATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Volumes and Levels of Service</td>
<td>An increase in average daily vehicle trips could be generated, causing a reduction in Level of Service at an intersection or on a street segment.</td>
<td>Less Than Significant With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.</td>
</tr>
<tr>
<td></td>
<td>Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited TR-1 Prior to approval of any specific development application, a Traffic Impact Analysis shall be prepared pursuant to the City’s Traffic Impact Analysis Guidelines. For projects that generate traffic that would result in an intersection or roadway segment operating beyond LOS</td>
<td></td>
</tr>
<tr>
<td>Potential Impacts</td>
<td>Project Mitigation Measures</td>
<td>Level of Significance</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>to intersections, streets, highways and freeways, could be created.</td>
<td>D, or result in an increase in traffic volumes at an intersection or roadway segment, which is already operating at beyond LOS D without the proposed project, the Traffic Impacts Analysis shall propose binding mitigation strategies to be incorporated within the project.</td>
<td></td>
</tr>
<tr>
<td><strong>Alternative Transportation – Bus and Commuter Rail Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to mass transit (bus and commuter rail services), could be created.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Conflicts with adopted policies, plans, or programs regarding public transit facilities (bus and commuter rail) could be created, or the performance of safety of such facilities could be decreased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alternative Transportation – Bikeways</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to bicycle paths, could be created.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Conflicts with adopted policies, plans, or programs regarding bicycle facilities could be created, or the performance of safety of such facilities could be decreased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could result in cumulatively considerable traffic and circulation impacts.</td>
<td>No mitigation is required beyond compliance with the GPEIR Policies and Mitigation Measures, and Project Mitigation Measures identified.</td>
<td>Less Than Significant With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.</td>
</tr>
<tr>
<td><strong>AIR QUALITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Short-Term Construction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant short-term air emissions or deterioration of ambient air quality could occur from construction-related stationary or mobile sources.</td>
<td>AQ-1 During clearing, grading, earth-moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures using the following procedures, as specified by the AVAQMD, including but not limited to AVAQMD Rule 401, Visible Emissions, and Rule 403 Fugitive</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
<tr>
<td>Potential Impacts</td>
<td>Project Mitigation Measures</td>
<td>Level of Significance</td>
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</tbody>
</table>
| Dust: | **On-site vehicle speed shall be limited to 15 miles per hour;**  
|       | **All on-site construction roads with vehicle traffic shall be watered periodically;**  
|       | **Streets adjacent to the Project’s reach shall be swept as needed to remove silt that may have accumulated from construction activities so as to prevent excessive amounts of dust;**  
|       | **All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day;**  
|       | **All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 35 miles per hour averaged over one hour) so as to prevent excessive amounts of dust;**  
|       | **All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;**  
|       | **The area disturbed by clearing, grading, earth-moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust; and**  
|       | These control techniques shall be indicated on project grading plans. Compliance with this measure shall be subject to periodic site inspections by the City of Palmdale. |
### Potential Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-2</td>
<td>All trucks hauling excavated or graded material on-site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4), as amended, regarding the prevention of such material spilling onto public streets.</td>
<td></td>
</tr>
</tbody>
</table>
| AQ-3              | During construction activities, excessive construction equipment and vehicle exhaust emissions shall be controlled by implementing the following procedures, as specified by the AVAQMD:  
  - Properly and routinely maintain all construction equipment, as recommended by manufacturer manuals, to control exhaust emissions;  
  - Shut down equipment when not in use for extended periods of time to reduce emissions associated with idling engines;  
  - Encourage ride sharing and use of transit transportation for construction employee commuting to the project sites;  
  - Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment; and  
  - Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak-hour of vehicular traffic on adjacent roadways. | |
| AQ-4              | The construction contractor shall adhere to AVAQMD District Rule 1113 (Architectural Coatings) to limit volatile organic compounds from architectural coatings. This rule specifies architectural coatings storage, clean up and labeling requirements. | |
## Potential Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-5</td>
<td>All building demolition activities shall adhere to AQAQMD District Rule 1403 (Asbestos Emissions From Demolition/Renovation Activities) and Regulation X (National Emissions Standards for Hazardous Air Pollutants). Additionally, the demolished material shall be transported off-site expeditiously after demolition of the structure.</td>
<td></td>
</tr>
</tbody>
</table>

### Long-Term Operational

- Significant long-term air emissions or deterioration of ambient air quality could occur from operational stationary or mobile sources.
- Air movement, moisture, or temperature could be altered, or changes in climate could occur, either locally or regionally.

<table>
<thead>
<tr>
<th>Long-Term Operational</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
</tbody>
</table>

### Cumulative Impacts

- Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City would impact existing regional air quality levels on a cumulative basis.

<table>
<thead>
<tr>
<th>Cumulative Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
</tbody>
</table>

### GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE

#### Greenhouse Gas Emissions

- Greenhouse gas emissions, would be generated either directly or indirectly, having a significant impact on the environment.

<table>
<thead>
<tr>
<th>GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
</tbody>
</table>

#### Consistency With Applicable GHG Plans, Policies or Regulations

- Conflicts could occur with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

<table>
<thead>
<tr>
<th>Consistency With Applicable GHG Plans, Policies or Regulations</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicts could occur with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
</tbody>
</table>

### Cumulative Impacts

- Greenhouse Gas Emissions resulting from buildout of the Expansion Area in accordance with the General Plan and related development within the City could impact Greenhouse Gas levels on a cumulatively considerable basis.

<table>
<thead>
<tr>
<th>Cumulative Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
</tbody>
</table>

### NOISE

#### Vehicular Noise Sources

- Residential or noise sensitive receptors could be exposed to severe noise levels because of their proximity to an existing or future arterial street.

<table>
<thead>
<tr>
<th>NOISE</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicular Noise Sources</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
</tbody>
</table>
## Potential Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Railroad Noise</strong></td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Noise sensitive receptors could be exposed to severe noise levels, if located within 200 feet of the railroad.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Long-Term Operational Impacts – Stationary Sources

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A long-term operational noise levels from stationary sources exceeding 65 CNEL could be generated at property boundaries significantly impacting an adjoining land use.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
</tbody>
</table>

### Cumulative Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could result in cumulatively considerable noise impacts from mobile (vehicular and railroad) and stationary noise sources.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
</tbody>
</table>

## GEOLOGY AND SOILS

### Seismic Hazards

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future developments/improvements could be located in a zone subject to seismic ground shaking, ground failure, or liquefaction.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Future developments/improvements located within a fault rupture hazard zone, could be located on an active or potentially active fault.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future developments/improvements located within a fault rupture hazard zone, could include a school, emergency or public facility, day care center, nursing home, or high rise building.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Geologic Hazards

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development sites that include areas of potential differential settlement could significantly impact the development.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Development sites that include areas of high shrink/swell (hydrocompaction) potential could significantly impact the development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development sites that include areas of potential subsidence could significantly impact the development.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Potential Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soil Erosion</strong></td>
<td>A significant increase in wind or water erosion of soils, either on- or off-site, could occur.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Identified.</td>
</tr>
<tr>
<td></td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>Buildout of the Expansion Area in accordance with the General Plan and related development throughout the City could result in cumulative geology and soils impacts.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td></td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td></td>
</tr>
</tbody>
</table>

### HAZARDS AND HAZARDOUS MATERIALS

#### Release of Hazardous Materials

<p>| HAZ-1 | A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II and Phase III ESA experience prior to land acquisition, demolition, and/or construction. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated. |
| HAZ-2 | Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor. |                                                                                      |</p>
<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZ-3</strong></td>
<td>If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified environmental professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifics exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Project Engineer.</td>
<td></td>
</tr>
</tbody>
</table>
| **HAZ-4**        | If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:  

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;  
- Notify the City’s Project Engineer;  
- Secure the area as directed by the Project Engineer; and  
- Notify the implementing agency’s Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required. | |

Final • May 2011 | 1-14 | Executive Summary |
## Potential Impacts

<table>
<thead>
<tr>
<th>Hazardous Waste Site</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future development sites could be included on a known State Hazardous Waste Site list.</td>
<td>Refer to HAZ-1, HAZ-2, HAZ-3, and HAZ-4.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.</td>
</tr>
</tbody>
</table>

### Create or Expose Persons to a Health Hazard

| A health hazard or potential health hazard (excluding mental health) could be created. People could be exposed to potential health hazards. | Refer to HAZ-1, HAZ-2, HAZ-3, and HAZ-4. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated. |

### Cumulative Impact

| Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could result in cumulative impacts associated with hazards and hazardous materials. | Refer to HAZ-1, HAZ-2, HAZ-3, and HAZ-4. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated. |

## HYDROLOGY AND WATER QUALITY

### Short-Term Surface Water Quality

| During construction, materials could be discharged into surface waters, or alterations could occur to surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity. Silt could be deposited or erosion could occur during construction, modifying a stream channel or adversely affecting downstream flood control facilities. | No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |

### Long-Term Surface Water Quality

| During project operations, materials could be discharged into surface waters, or alterations could occur to surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity. Silt could be deposited or erosion could occur during project operations, modifying a stream channel or adversely affecting downstream flood control facilities. | No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |

### Flood Hazards

| Development sites could be located in an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments. | No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |

### Localized Flooding

| Significant increases in peak runoff could increase flood hazards off-site. | No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |
## Potential Impacts

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groundwater</strong></td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
<tr>
<td>A change in the quantity or quality of groundwater could occur, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact hydrology and water quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BIOLOGICAL RESOURCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jurisdictional Waters and Wetlands</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The future development site could contain a blue-line stream, spring, seep, or wetland.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Changes in the course or volume of water in a local stream or wetland could occur, requiring Department of Fish and Game or Army Corps of Engineers permits.</td>
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<tr>
<td>The loss of, or changes to, significant stands of riparian vegetation could occur.</td>
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</tr>
<tr>
<td><strong>Native Vegetation and Sensitive Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive, non-native species of plants could be introduced into an area and a barrier to the normal replenishment of existing native plant species could be created.</td>
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<td></td>
</tr>
<tr>
<td>A significant reduction in acreage of native vegetation could occur.</td>
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<td></td>
</tr>
<tr>
<td>A significant loss of biological diversity could occur.</td>
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<td></td>
</tr>
<tr>
<td>Significant deterioration of, or loss of, existing fish or wildlife habitat could occur.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BIO-1</strong> A Biological Resources Assessment shall be conducted for future development projects in known or suspected natural habitat areas by a qualified Biologist, prior to an application being deemed complete, to determine the potential presence/absence of candidate, sensitive, or special status species, as well as the presence/absence of habitat that would support these species.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BIO-2</strong> If deemed necessary by the site-specific Biological Resources Assessment, a Focused Survey of the proposed development site shall be conducted by a qualified Biologist, prior to any ground disturbance, for sensitive plant and wildlife species that are federally- or state-listed as endangered or threatened, having moderate to high potential for occurrence on the proposed development site.</td>
<td></td>
<td></td>
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</tbody>
</table>
### Potential Impacts

<table>
<thead>
<tr>
<th></th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO-3</strong></td>
<td>If deemed necessary by the Biological Resources Assessment, a pre-construction Burrowing Owl Survey shall be conducted to determine the presence/absence of the burrowing owl on the proposed development site, before any ground disturbance occurs. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG and the Burrowing Owl Consortium (BOC). If burrowing owls are determined to be present on the development site, mitigation for potential impacts to owls shall follow the guidelines outlined by the BOC, including passive relocation during the non-breeding season.</td>
<td></td>
</tr>
<tr>
<td><strong>BIO-4</strong></td>
<td>If deemed necessary by the Biological Resources Assessment, focused Trapping Surveys shall be conducted to determine the presence/absence of the Mohave ground squirrel on the proposed development site prior to any ground disturbance. The Surveys shall be conducted according to the guidelines established by CDFG. If Mohave ground squirrel is determined to be present onsite, a State Permit shall be obtained pursuant to CDFG Code Section 2081.</td>
<td></td>
</tr>
<tr>
<td><strong>BIO-5</strong></td>
<td>If deemed necessary by the Biological Resources Assessment, a focused Coast (San Diego) horned lizard Survey shall be conducted to determine the presence/absence of this species on the proposed development site prior to any ground disturbance. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG.</td>
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</table>
### Potential Impacts

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<thead>
<tr>
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<tbody>
<tr>
<td><strong>BIO-6</strong> Impacts to migratory wildlife potentially impacted by future development shall be fully evaluated, including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds.</td>
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<tr>
<td><strong>BIO-7</strong> Project construction activities (including disturbances to vegetation) shall take place outside of the breeding bird season (February 1 to September 1), in order to avoid take (including disturbances, which would cause abandonment of active nests containing eggs and/or young). If project construction activities cannot avoid the breeding season, nest surveys shall be conducted and active nests shall be avoided and provided with a minimum buffer, as determined by a biological monitor.</td>
<td><strong>BIO-7</strong> Project construction activities (including disturbances to vegetation) shall take place outside of the breeding bird season (February 1 to September 1), in order to avoid take (including disturbances, which would cause abandonment of active nests containing eggs and/or young). If project construction activities cannot avoid the breeding season, nest surveys shall be conducted and active nests shall be avoided and provided with a minimum buffer, as determined by a biological monitor.</td>
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### Cumulative Impacts

<table>
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</thead>
<tbody>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development within the City could result in cumulatively considerable impacts to biological resources.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.</td>
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### CULTURAL RESOURCES

**Archaeological and Paleontological Resources**

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<tr>
<th>CULTURAL RESOURCES</th>
<th>Project Mitigation Measures</th>
<th>Level of Significance</th>
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<tbody>
<tr>
<td>A prehistoric or historic archaeological site could be altered or destroyed. Adverse impacts on paleontological resources could occur.</td>
<td><strong>CUL-1</strong> In the event that archeological and/or paleontological resources are unearthed during excavation and grading activities of any future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, the contractor shall cease all earth-disturbing activities within a 100-meter radius of the area of discovery and shall retain a qualified archaeologist and/or paleontologist to evaluate the significance of the finding and appropriate course of action.</td>
<td>Less Than Significant With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.</td>
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### Potential Impacts

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<thead>
<tr>
<th>Historical Resources</th>
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<tbody>
<tr>
<td>Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. Work within the area of discovery shall resume only after the resource has been appropriately mitigated.</td>
<td>No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies identified.</td>
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#### Human Remains

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<tr>
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<tbody>
<tr>
<td>Human remains could be disturbed, including those interred outside of formal cemeteries.</td>
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</table>

CUL-2 In the event that human remains are unearthed during excavation and grading activities from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, all activity shall cease immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated. |

### Cumulative Impacts

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<thead>
<tr>
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<tbody>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact cultural resources.</td>
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</table>

No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated. |

### POLICE PROTECTION

<table>
<thead>
<tr>
<th>Police Protection Services</th>
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</thead>
<tbody>
<tr>
<td>Certain aspects of a project could create a significant impact to police protection.</td>
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</table>

No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |
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<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the city could cumulatively impact police protection services.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>SCHOOL FACILITIES</strong></td>
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<tr>
<td>School Facilities</td>
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<tr>
<td>The student generation within respective elementary and high school attendance areas could significantly contribute to the affected schools exceeding their designed capacity.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
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</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively contribute to the affected schools exceeding their designed capacities.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>PARKS AND RECREATION FACILITIES</strong></td>
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<tr>
<td>Parks and Recreation Facilities</td>
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<tr>
<td>The quality or quantity of existing parks or recreational facilities could be impacted, including trails or bicycle paths.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact parks and recreation facilities.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>LIBRARY SERVICES</strong></td>
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<tr>
<td>Library Services</td>
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<tr>
<td>A significant impact to library services could occur due to increased population.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>Cumulative Impact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact City of Palmdale library facilities and services.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td><strong>WATER</strong></td>
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<tr>
<td>Water Supply and Demand</td>
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</tr>
<tr>
<td>A substantial reduction in the amount of water that would otherwise be available for public water supplies could occur.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
<td>Significant and Unavoidable Impact.</td>
</tr>
<tr>
<td>New water systems could be needed or existing substantially altered.</td>
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</tbody>
</table>
## Executive Summary

### Potential Impacts

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the city could cumulatively impact water supplies and systems.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
</tr>
<tr>
<td><strong>WASTEWATER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wastewater Generation</td>
<td>New sanitary sewer systems could be needed or existing substantially altered.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could result in cumulatively considerable impacts involving wastewater.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
</tr>
<tr>
<td><strong>SOLID WASTE</strong></td>
<td></td>
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<tr>
<td>Solid Waste Disposal</td>
<td>New solid waste disposal facilities could be required or existing facilities substantially altered. Future development could be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
</tr>
<tr>
<td>Compliance with Statutes and Regulations</td>
<td>Conflicts with federal, state, and local statutes and regulations related to solid waste could occur.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact solid waste disposal and landfill capacity.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
</tr>
<tr>
<td><strong>ELECTRICITY AND NATURAL GAS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>New power systems or substantial alterations to existing could be needed.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>New natural gas systems or substantial alterations to existing could be needed.</td>
<td>No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified.</td>
</tr>
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</table>
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<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact electrical supplies and systems.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
</tr>
<tr>
<td>Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact natural gas supplies and systems.</td>
<td>No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, identified.</td>
<td>Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.</td>
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### COMMUNICATION SYSTEMS

#### Communication Services

| New communication systems or substantial alterations to existing could be needed. | No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies identified. | Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated. |

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1.6 INVENTORY OF GPEIR
MITIGATION MEASURES AND POLICIES

POPULATION, HOUSING, AND EMPLOYMENT

Alterations to Human Population

Policy L1.1.2:  Provide incentives to promote infill development, in order to foster more cohesive neighborhoods, maximize use of infrastructure, consolidate development patterns and enhance community appearance.

Policy L2.1.2:  Adopt comprehensive land use documents to designate areas for business and industrial users, such as specific plans, which will simplify environmental and development review processes for new businesses and ensure coordinated infrastructure planning.

Policy L2.1.3:  Adopt strategies to provide opportunities for a wide range of business needs, including start up, expansion, and relocation.

Policy L2.1.6:  Consider the jobs/housing balance in evaluating new development proposals.

Policy L2.3.1:  Based upon existing development patterns within the core area of Palmdale, designate a special development area consisting of the incorporated areas generally bounded by Avenue Q, Antelope Valley Freeway, Avenue R and 35th Street East excluding specific plan areas. Within this area, promote economic development through a variety of means including but not limited to the following:

1. Promote reduction of vacancy rates in existing structures by adopting development standards consistent with those used when the area was constructed, which may include but not be limited to parking, setback, landscaping and architectural requirements.

2. Encourage infill development on vacant lots within this area through provision of incentives.

3. Establish sign criteria appropriate for the density of development within this area.

4. Promote development of municipal and administrative functions within the Civic Center area, to provide a focus for downtown businesses.

5. Promote establishment of a transportation facility within the downtown area, serving as a hub for rail, bus and other public transportation systems.
6. Promote outdoor activities within the downtown area to increase the number of people attracted to the area.

7. Support the rerouting of State Highway 138 to the vicinity of Avenue P-8, so as to remove regional through traffic from downtown streets.

8. Through a coordinated effort of all affected agencies, address areas requiring special attention to prevent blight in the downtown area.

9. Promote shared parking to serve existing businesses and minimize the amount of land in the downtown area devoted to vehicle storage in proportion to that utilized for active businesses.

10. Establish appropriate criteria to permit mixed use developments within the Office Commercial (OC) and Downtown Commercial (C-D) designated portions of the Downtown Revitalization Area.

Policy L3.2.1: Permit a range of residential densities and housing types throughout the City, rather than concentrating higher densities in limited areas.

Policy L3.2.2: Direct the location of senior and multi-family housing to areas accessible to public transportation, supportive commercial uses, and community facilities.

Policy L3.4.3: Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one (1) acre or more.

Policy H1.1.1: Encourage a variety of housing types such as single family attached (townhouses), multifamily units, planned unit developments and other housing types that make housing more affordable.

Policy H1.1.2: Encourage the development of new affordable units through the provision of incentives.

Policy H1.1.3: Encourage the development of housing affordable to lower income groups in areas well served by public transportation, schools, retail and other services.

Policy H1.1.5: Replace housing units demolished by the redevelopment agency for redevelopment projects.

**Demand for Additional Housing**

Refer to GPEIR Policy L3.2.1, Policy L3.2.2, Policy L3.4.3, Policy H1.1.1, Policy H1.1.2, Policy H1.1.3, Policy H1.1.5, and the following:

Policy L3.6.2: Promote development of pro-active property maintenance and community appearance programs including greater emphasis on volunteer efforts.
Policy L3.6.3: Support community groups and homeowners’ associations to assist in community maintenance programs.

Policy H8.1.3: Encourage mixed use housing in designated areas along transportation corridors and other commercial strips.

TRANSPORTATION AND CIRCULATION

Traffic Volumes and Levels of Service

Policy C1.1.3: Develop and maintain a computer traffic model based upon the designated network, and assess existing and projected levels of service on streets within the network in making land use decisions and formulating the Land Use Plan.

Policy C1.1.4: Periodically monitor levels of service within the existing street network to identify deficient street segments and intersections, and develop programs to improve service levels where needed.

Policy C1.1.5: Improve the existing street network based upon the adopted Circulation Plan, through implementation of the Capital Improvement Program and through requirements placed upon new development approvals.

Policy C1.1.7: Ensure that right-of-way is reserved wherever possible to implement the adopted Circulation Plan.

Policy C1.1.8: Evaluate all land use decisions to ensure consistency with the Circulation Plan.

Policy C1.1.9: Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.

Policy C1.1.10: Develop and adopt standards regulating where raised medians will be required, and where right-of-way and pavement width may be reduced, based upon existing and approved development, access control, and circulation needs.

Policy C1.2.1: Provide adequate system capacity and efficiency through exclusive turn lane additions at arterial intersections and other significant locations.

Policy C1.2.2: Assure safe and efficient arterial operations through careful control of access, signal spacing, median placement, and overall street and development design.

Policy C1.2.3: Protect and increase the capacity of arterial streets through the following measures:
1. No new direct residential driveway access will be permitted onto regional, major and secondary arterials or highways, except where no other feasible access is available.

2. For residential development, full intersections will generally be permitted at no less than one-quarter mile spacing along arterial streets. Where it is determined by the City Traffic Engineer that community-wide circulation will not be negatively impacted, full intersections (non-signalized) may be permitted at approximately one-eight mile spacing.

3. Except as specified in Policy C1.2.3.b, right turn only access will typically be permitted at approximately one-eighth mile spacing in residential developments, unless no other feasible access is available. Additional right-of-way may be required on arterials for right turn lanes onto local and collector streets, and significant private streets or driveways.

4. On-street parking will be prohibited on arterial roadways, unless otherwise approved by the City Traffic Engineer.

5. New arterial streets, and extensions of existing arterial streets, will be designed so as to eliminate jogs and discontinuities and facilitate regional traffic flow.

6. All secondary, major and regional arterials should be constructed with medians.

Policy C1.2.4: Promote development of regional arterial links within the community where needed to serve existing and future needs, including but not limited to the following:

1. Promote development of grade separations at railroad tracks, in particular, at Palmdale Boulevard.

2. Coordinate with Caltrans and other affected agencies to expedite rerouting of Highway 138 and widening of State Route 14.

3. Coordinate with affected agencies and jurisdictions to address the potential for establishing a regional north-south transportation corridor within the west side of the Antelope Valley.

Policy C1.3.1: Promote development of local street patterns, which create and unify neighborhoods, rather than divide them, through the following means:

1. Local street patterns should provide access between subdivisions within a neighborhood, with the exception of through traffic which should be directed onto major and secondary arterials.
2. The local street system should be logical and understandable for the user. Creation of circuitous and confusing travel paths between internal neighborhood areas and adjacent arterials should be avoided.

3. The street system should be designed to avoid creating local streets, which will ultimately function as collectors. A local street may be determined to function as a collector street when it is or will be used to collect traffic from local streets and convey it to an arterial street. This function of collecting traffic may be due to the street’s length, alignment, design or the lack of other streets which may be used to convey traffic to nearby arterials. In general, local streets will be discouraged from extending more than one-half mile so as to avoid serving this function.

4. Direct residential driveway access onto collectors, or onto local streets, which function as collectors, is discouraged.

5. Local street design should provide efficient connection to the arterial highway system while discouraging excessive speeds and volumes within neighborhoods.

6. Maximum cul-de-sac length should be 700 feet. “Dog-leg” cul-de-sacs with one or more turns between the bulb and the outlet should be avoided.

7. To discourage excessive speed and through traffic, street width should not exceed that required for the level of use; right-of-way and pavement widths on local streets may be reduced when it can be demonstrated that such reduction will not negatively impact internal and external circulation. Where such reductions are proposed, the City Traffic Engineer shall make appropriate recommendations to the Planning Commission during review of the tentative map.

Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

Policy C1.4.2: Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service or LOS C, whichever is less, and other performance characteristics applicable to the affected roadways. Development shall not be authorized until measures are in place to construct any necessary improvements; these measures may include, but not be limited to, payment of traffic impact fees or construction of street improvements as required in the conditions of approval.

Policy C1.4.3: Establish street design standards, which provide the capacities that are needed to adequately serve the projected travel demand.
Policy C1.4.5: Locate and design intersections so as to promote safe and efficient circulation, through the following means:

- Local to local street intersections should be spaced at least 150 feet apart (from centerline to centerline).

- Intersections, including knuckles, should generally be perpendicular. Public streets should intersect at a 90 degree angle plus or minus five degrees. Knuckles should be constructed at a 90 degree angle, plus or minus 10 degrees.

- Excessive grade variations, curves or other features which impair sight distance at intersections shall be avoided.

- Local to collector street intersections should be spaced no less than 300 feet apart, where necessary to provide adequate queuing room for left turn movements on to the collector street. Where left turn movements onto the collector street are not needed, this spacing requirement may be reduced to 150 feet.

- On local to local intersections, four-way intersections should be avoided.

- For intersections of collector or larger streets, four-way intersections are preferred over offset or “T” intersections.

Policy C1.4.6: Adopt standards for use of private streets, where appropriate; private streets, other than driveways and alleyways typically associated with multi-family development, should be constructed to City standards for public rights-of-way, and should be used only for gated communities.

Policy C1.5.2: Periodically monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.

Policy C1.8.1: Cooperate with other agencies and jurisdictions, including Caltrans, Los Angeles County, and adjacent cities, to evaluate the proposed solutions to regional transportation issues relating to the City of Palmdale.

Policy C1.8.2: Coordinate with other jurisdictions to integrate circulation networks.

Policy C2.1.1: Require Transportation Demand Management Plans from major employers, as defined by the Air Quality Management District and the Congestion Management Plan.

Policy C2.1.2: Promote the use of ridesharing by providing safe and convenient park-and-ride facilities, accessible to mass transit facilities where available, and by providing public information programs for commuters.
Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.

Policy C2.1.4: Provide incentives for trip reduction measures.

Policy C2.1.5: Ensure compliance with the County’s Congestion Management Plan.

Policy C2.1.6: Promote alternative means of trip reduction, including telecommuting.

Policy C2.2.1: Promote public transit operations within the Planning Area, and work with transit operators to coordinate schedules, services, service routes, and fares.

Policy C2.2.2: Promote the use of public transit by facilitating dedication of access routes and construction of safe and convenient stops with sufficient parking.

Policy C2.2.3: Encourage location of bikeways and storage areas which are integrated with public transit facilities.

Policy C2.2.4: Encourage development of regional rail transit serving the Palmdale area.

Policy C2.2.5: Require provision of bus turnouts for new development, where deemed to be appropriate in consultation with the transit authority.

Policy C2.2.6: Establish a regional transportation center within the City, conveniently located to maximize access to downtown and major commercial centers, which will accommodate a variety of public transportation uses including rail, bus, and shuttle service.

Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Policy C3.1.3: Promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas.

Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Policy C3.1.5: Adopt and implement a bikeway plan as a component of the Parks, Recreation and Trails Element.

Policy C4.2.2: Support regional efforts to provide commuter rail service from Palmdale to the Los Angeles basin.

Policy C5.1.3: Coordinate development policies and decisions with Air Force Plant 42 representatives.
Policy C5.2.1: Promote economic development of land surrounding the airport for large-scale commercial uses, so as to support a market demand for airport services.

Policy C5.2.2: Restrict encroachment of incompatible uses into land affected by future airport operations.

Policy C5.2.3: Promote and support regional transportation planning for routes serving the airport facility, including State Routes 14 and 138.

Policy PRT1.6.1: Provide trail linkages through active park sites to connect nearby equestrian and multi-use trails, and bikeways.

Policy PRT5.1.1: Establish Class I, II and III bikeways throughout the planning area. Backbone Class I and II bikeways are shown on Exhibit PRT-2.

Policy PRT5.1.2: Focus additional planning efforts towards establishing local bikeway networks which connect with the city-wide backbone system.

Policy PRT5.1.3: Reserve right-of-way, require dedication when appropriate, and ensure construction of bikeways through the development review process and Capital Improvement Program.

Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):

- Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends.

- Subdivision design should consider bicycle and pedestrian access to nonresidential uses. These areas are best accessed through perimeter (single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.

Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.

Policy PRT5.1.7: Provide for the designation and improvement of bicycle support facilities, including staging areas, parking facilities and bike lockers, at appropriate locations along the bikeway network, through the development review process and Capital Improvement Program.

Policy PRT5.2.1: Utilize the following criteria in designating bikeways:

- The bikeway network should be designed to suit the needs of all types of bike riding, including recreational, commuter, utilitarian and long-distance cycling.
The bikeway system should form a continuous network, with dead-end spurs minimized.

The bikeway network should interconnect public facilities, schools, parks, recreational areas, commuter facilities and major community, industrial, recreational, institutional, employment and commercial centers.

Utilize open space easements, public land, flood control facilities, the California Aqueduct right-of-way and utility easements, where appropriate, to facilitate the objectives of the Bikeway Network and establish safe and continuous off-street bikeways.

Where feasible, the bikeway system should be coordinated with bike routes in adjacent jurisdictions.

The bikeway network should maximize opportunities for diverse recreational and scenic experiences.

Bikeways should be located and designed to permit the cyclist to reach destination points with a minimum expenditure of time and energy.

Off-street bikeways (Class I) shall be designed to accommodate pedestrian use, where appropriate.

Policy PRT5.2.2: Adopt the design standards, described in the State of California Highway Design Manual, Chapter 1000, which set forth minimum bikeway widths and clearances, maximum grades and road crossing details, among other things.

Policy PRT5.3.2: Require utilization of Class I bike paths in all master planned developments.

Policy CD 10.7.7: Facilities to accommodate alternate travel modes are encouraged. Transit facilities, including bus turnouts, benches, and/or shelters may be required, and should integrate with the overall site design. Convenient and secure bicycle parking areas will be required.

**Alternative Transportation – Bus and Commuter Rail Services**

Refer to GPEIR Policy C2.1.1, Policy C2.1.2, Policy C2.1.3, Policy C2.1.6, Policy C2.2.1, Policy C2.2.2, Policy C2.2.3, Policy C2.2.4, Policy C2.2.5, Policy C3.1.2, Policy C4.2.2, and Policy CD 10.7.7.

**Alternative Transportation – Bikeways**

Refer to GPEIR Policy C2.1.1, Policy C2.1.3, Policy C2.1.6, Policy C3.1.2, Policy C3.1.3, Policy C3.1.4, Policy C3.1.5, and Policy PRT1.6.1, Policy 5.1.1, Policy 5.1.2, Policy 5.1.3, Policy 5.1.4, Policy 5.1.6, Policy 5.1.7, Policy 5.2.1, Policy 5.2.2, Policy 5.3.2, Policy CD 10.7.7, and the following:
Policy PRT5.3.1: Bikeway safety shall be a primary consideration in the City's planning and design of the bikeway plan.

Policy PRT5.3.3: Establish maintenance levels and schedules for bicycle facilities, and implement on-going maintenance.

Policy PRT5.3.4: Locate and design bikeway facilities to promote safety through the avoidance of visually obstructive elements and the requirement of lighting, where appropriate.

Policy PRT5.3.5: Where feasible, bikeways should be physically separated from traffic lanes by landscaped areas, grade changes, or physical barriers to enhance bicyclist safety.

Policy CD 10.4.9: Provisions for bikeways should be made in the site design, in accordance with the City's adopted bikeway plan.

**AIR QUALITY**

**Short-Term Construction**

Implementation Program ER-D1: The City shall comply with the Antelope Valley Air Quality Management District requirements to implement the Tier I, II and III control measures described in the South Coast Air Quality Management Plan (SCAQMP), to the extent these measures apply to Palmdale.

Policy ER5.2.1: Reduce dust from unpaved roads and parking lots by requiring paving or vegetative stabilization of the unpaved areas; require that measures be taken at construction sites to prevent deposition of soil onto public rights-of-way.

Policy ER5.2.3: Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

**Long-Term Operational**

Implementation Program ER-D2: To reduce mobile source emissions the City will implement a trip reduction ordinance. The ordinance should consider the number of Vehicle Miles Traveled (VMT) estimated to be generated from each new development project in accordance with the requirements of AVAQMD, Los Angeles County Metropolitan Transportation Authority (MTA) and other affected agencies. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)
Implementation Program ER-D3: The City should support legislation that would provide tax incentives for developers to establish work centers in housing-rich Palmdale, and vanpool tax credit legislation which includes such provisions as granting tax exempt status to compensation received for specific ridesharing programs; allowing tax deductions for employees who rideshare; and special tax credits for alternative-fuel vehicles. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Implementation Program ER-D5: To reduce emissions from natural gas combustion and electricity generation, the City will incorporate the most energy-efficient design consistent with a reasonable rate of return when retrofitting existing facilities and equipment in city buildings. In addition, the City will develop a public information program on energy conservation and cooperate with utilities to encourage energy audits of existing structures, identifying levels of existing energy uses and potential conservation measures.

Implementation Program ER-D6: The City will analyze the potential for the alternative use of any public facility, which is slated to be closed or consolidated with another facility, as a neighborhood work center; this policy should be communicated to affected agencies, such as the school board and library commission.

Implementation Program ER-D7: The City will adopt appropriate ordinances relating to trip reduction, nonmotorized transportation, employer rideshare and transit incentives, parking management, merchant transportation incentives, auto use restrictions, and truck routing to both achieve compliance with the Antelope Valley Air Quality Management Plan and to implement City programs and standards. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Objective ER5.1: Minimize local air pollution caused by vehicles.

Policy ER5.1.1: Reduce work-related trips through such means as promoting alternate work schedules, telecommuting, the use of alternative modes of transportation to the workplace, and the creation of additional park-and-ride facilities.

Policy ER5.1.2: Reduce vehicle non-work trips through merchant transportation incentives and transit system improvements.

Policy ER5.1.3: Reduce vehicle emissions through maintaining and improving traffic flow as contained in the Circulation Element.
Policy ER5.1.4: As technology allows, reduce tailpipe emissions from city vehicles by replacing them with alternative fuel vehicles, and encourage reduction of emissions from private vehicles by requiring preferential parking for alternative fuel vehicles.

Policy ER5.3.1: Promote the SCAQMD’s efforts to eliminate emissions from such sources as excessive car dealership cold starts, excessive curb idling, emissions from advertising vehicles, and emissions from leaf blowers, among others, through assisting with implementation and enforcement of district programs once they are adopted.

Policy ER5.3.2: Work with Caltrans and the Los Angeles County Sheriff’s Department to minimize nonrecurrent congestion which contributes emissions from vehicle idling, by designing effective street systems and identifying appropriate truck routes.

Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent feasible.

Policy ER5.6.2: Promote the creation of high occupancy vehicle lanes on State Route 14.

Policy ER5.6.3: Reduce the number of people commuting to the Los Angeles metropolitan area by promoting actions to increase the area’s jobs/housing balance.

Policy ER5.6.4: Support the development of a rail system between Palmdale and Los Angeles.

Objective ER5.5: Reduce air pollution caused by energy consumption.

Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes, and equipment, and promoting energy audits of existing structures.

Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.

**GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE**

**GREENHOUSE GAS EMISSIONS**

Implementation Program ER-D2: To reduce mobile source emissions the City will implement a trip reduction ordinance. The ordinance should consider the number of Vehicle Miles Traveled (VMT) estimated to be generated from each new development project in accordance with the requirements of AVAQMD, Los Angeles County Metropolitan Transportation Authority (MTA) and other affected agencies. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)
Implementation Program ER-D3: The City should support legislation that would provide tax incentives for developers to establish work centers in housing-rich Palmdale, and vanpool tax credit legislation which includes such provisions as granting tax exempt status to compensation received for specific ridesharing programs; allowing tax deductions for employees who rideshare; and special tax credits for alternative-fuel vehicles. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Implementation Program ER-D5: To reduce emissions from natural gas combustion and electricity generation, the City will incorporate the most energy-efficient design consistent with a reasonable rate of return when retrofitting existing facilities and equipment in city buildings. In addition, the City will develop a public information program on energy conservation and cooperate with utilities to encourage energy audits of existing structures, identifying levels of existing energy uses and potential conservation measures.

Implementation Program ER-D6: The City will analyze the potential for the alternative use of any public facility, which is slated to be closed or consolidated with another facility, as a neighborhood work center; this policy should be communicated to affected agencies, such as the school board and library commission.

Implementation Program ER-D7: The City will adopt appropriate ordinances relating to trip reduction, nonmotorized transportation, employer rideshare and transit incentives, parking management, merchant transportation incentives, auto use restrictions, and truck routing to both achieve compliance with the Antelope Valley Air Quality Management Plan and to implement City programs and standards. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.
Implementation Program ER-S: The City should continue to monitor, along with the Los Angeles County Sanitation District, the feasibility of expanding water reuse programs. Treated wastewater is currently used to irrigate some agricultural areas growing non-food crops. With the growing population, supplies of treated water will increase. Treated wastewater might be used to irrigate roadside and commercial landscaping, in addition to agricultural lands, to help conserve Palmdale’s limited fresh water resources. The City may offer incentives to agricultural, commercial, and residential developments that use recycled water for irrigation. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER5.4.1: Promote community awareness of the effects of global warming and ozone depleting gases, as well as methods to minimize the creation of those gases, by preparing and distributing educational materials, and cooperating with AVAQMD in establishing regional programs. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes and equipment, and promoting energy audits of existing structures.

Policy ER5.5.2: Require local government, Palmdale citizens, and local businesses and industries to recycle, as mandated by state law, and to otherwise recycle to the extent possible.

Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.

Implementation Program ER-X: The City shall support programs designed to reduce energy consumption and to utilize alternative energy sources.

Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent feasible.

Policy ER5.6.2: Promote the creation of high occupancy vehicle lanes on State Route 14.

Policy ER5.6.3: Reduce the number of people commuting to the Los Angeles metropolitan area by promoting actions to increase the area’s jobs/housing balance.

Policy C2.1.2: Promote the use of ridesharing by providing safe and convenient park-and-ride facilities, accessible to mass transit facilities where available, and by providing public information programs for commuters.

Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.
Policy C2.1.4: Provide incentives for trip reduction measures.

Policy C2.1.5: Ensure compliance with the County's Congestion Management Plan.

Policy C2.1.6: Promote alternative means of trip reduction, including telecommuting.

Policy C2.2.1: Promote public transit operations within the Planning Area, and work with transit operators to coordinate schedules, services, service routes, and fares.

Policy C2.2.2: Promote the use of public transit by facilitating dedication of access routes and construction of safe and convenient stops with sufficient parking.

Policy C2.2.3: Encourage location of bikeways and storage areas which are integrated with public transit facilities.

Policy C2.2.4: Encourage development of regional rail transit serving the Palmdale area.

Policy C2.2.5: Require provision of bus turnouts for new development, where deemed to be appropriate in consultation with the transit authority.

Policy C2.2.6: Establish a regional transportation center within the City, conveniently located to maximize access to downtown and major commercial centers, which will accommodate a variety of public transportation uses including rail, bus, and shuttle service.

Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Policy C3.1.3: Promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas.

Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Policy C4.2.1: Support regional efforts to connect Palmdale Regional Airport to Los Angeles International Airport with a high-speed rail line.

Policy C4.2.2: Support regional efforts to provide commuter rail service from Palmdale to the Los Angeles basin.

Implementation Program PS-L: The City has adopted a Solid Waste Management Plan to comply with Assembly Bill 939 (AB939), the California Integrated Waste Management Act of 1989. The AB939 Act requires cities to develop plans to divert 25 percent of all solid waste from landfill disposal by 1995, and a total of
50 percent by the year 2000. The City of Palmdale’s plan includes a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a siting section, which identifies criteria for the location of solid waste, landfills, transfer stations, recycling centers and other waste facilities. The City will implement this Plan in all activities related to waste management, and will update the Plan as needed.

NOISE

Vehicular Noise Sources

Policy N1.1.1: Locate noise compatible land uses near existing and future air, rail and highway transportation noise sources.

Policy N1.1.2: Restrict noise sensitive land uses near existing or future air, rail or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N1.1.4: Consider the noise environment when making land use decisions with respect to the guidelines contained in Table N-1, and require noise standards consistent with the criteria listed on Table N-3. The State Recommended Acceptable Noise Guidelines, listed in [General Plan] Table N-1, are provided as guidelines only, and are not represented as standards.

Policy N1.2.3: Utilize any or all of the following measures in order to maintain acceptable noise environments throughout the City:

1. Control of noise at its source, including noise barriers and other muffling devices built into the noise source.

2. The provision of buffer areas and/or wide setbacks between the noise source and other development.

3. The reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad).

4. The use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels.

5. Designation of appropriate land uses adjacent to known noise sources.
RAILROAD NOISE

Refer to GPEIR Policies N1.1.1, N1.1.2, N1.1.4, N1.2.3 outlined above, and the following:

Policy N1.2.4: Where deemed appropriate based upon available information, acoustical analysis and appropriate mitigation for noise-sensitive land uses should be required in areas which may be adversely impacted by significant intermittent noise sources. Such noise sources may include but not be limited to railroads, racetracks, stadiums, aircraft overflights and similar uses.

LONG-TERM OPERATIONAL IMPACTS - STATIONARY SOURCES

Refer to GPEIR Policies N1.1.4 and N1.2.3 outlined above, and the following:

Policy N1.1.3: When proposed stationary noise sources could exceed an exterior noise level of 65 dBA CNEL at present, or could impact future noise sensitive land uses, require preparation of an acoustical analysis and mitigation measures to reduce noise levels to no more than 65 dBA CNEL exterior and 45 dBA CNEL interior; if the noise level cannot be reduced to these thresholds through mitigation, the new noise source should not be permitted.

Policy N1.2.1: Locate new major noise sources in areas containing existing noise sources, and avoid their location adjacent to noise sensitive land uses unless a finding can be made, based on evidence in the record, that the placement of the new noise source will not result in adverse impacts to the existing noise sensitive land use.

GEOLOGY AND SOILS

Seismic Hazards

Implementation Program S-A3: Geologic Investigation. The city engineering geologist will evaluate the need for a geologic investigation for proposed development within areas of potential geologic hazards. Geologic investigations will be required to include assessment of soil stability, susceptibility to geologic hazards in the area (including distance to nearest fault), and any other conditions which, as determined by the Engineering Department, may affect structural foundations.

Implementation Program S-A4: Construction and Land Use Standards. The City will review all new development for compliance with construction and land use standards regarding earthquake and other hazards. Strict enforcement of building codes and development standards shall be maintained with modifications granted only if no risks to life and property are involved.
Implementation Program S-A5: Special Study Zones. The City has established special study zones in known hazardous areas (earthquake fault zones, flood hazard areas, and areas of steep slopes) in order to identify the need for in-depth studies before allowing development within these areas. The construction of high density uses and critical structures on hazardous sites will be limited as required by California state law and City ordinances.

Implementation Program S-A8: Public Information and Education. The City will develop programs for public information and the education of residents and businesses on earthquake safety, flood hazards, dam inundation, geologic hazards, and other issues for which prevention measures may decrease the potential for personal injury and property damage.

Implementation Program S-A18: Development Review. Through the review of site plans, conditional use permits, and other development applications, the City will enforce the standards for floodplain development, seismic safety, and others.

Implementation Program S-A22: Building and Seismic Safety Codes. The City will enforce its building and seismic safety codes which provide minimum standards for the construction of habitable structures, and ensure the structural stability and safety of all developments. The Building and Safety Department reviews all construction plans for compliance with codes prior to development. The City’s Code Enforcement section responds to citizens concerns regarding unsafe structures and requires abatement of code violations.

Implementation Program S-B1: Standards for Construction and Development. Construction and development standards contained in the Zoning and Building codes include:

- Engineered construction must withstand secondary rupture in structures near fault zones.
- Emergency facilities and sites with explosives and toxic materials must adhere to more restrictive seismic safety construction.
- Emergency facilities shall be set back from known hazard areas (earthquake fault zones, aircraft crash zones, and floodplains).
- Critical use structures must conduct geologic/seismic hazards studies before construction, and implement appropriate construction techniques.
Policy L1.4.2: Establish the following standards in and adjacent to Alquist-Priolo Earthquake Fault zones and other active fault zones as determined based on geotechnical analysis, in order to protect residents, property and infrastructure systems from damage by seismic activity:

1. Restrict development of habitable structures in these zones in accordance with requirements of State law.

2. Establish a maximum permitted density for all residentially-designated land between the outer boundaries of the Alquist-Priolo Earthquake Fault Zone of three (3) dwelling units per acre (gross) within the project site, except where the Land Use Map indicates lower densities in these areas. This policy specifically excludes any non-residential land uses within the project site from the calculation of density.

3. Require placement of roads, utilities and other infrastructure to be located outside of active fault zones, where feasible.

4. Establish a maximum floor area ratio (FAR) of .5 for new non-residential development within Alquist-Priolo Earthquake Fault Zones.

Policy L3.1.2: In calculating the actual permitted density on a parcel of land, the following constraints will be considered:

1. No residential density shall be calculated for any seismic set back zone adjacent to active or potentially active fault traces where construction of habitable structures is not permitted, as delineated by a site-specific geotechnical report. However, seismic set back zones may be included in the calculation of minimum lot area and building setbacks. Areas located within the Alquist-Priolo Earthquake Zone, as delineated by the State Geologist, are subject to the density limitations described in Policy L1.4.2.

2. A maximum residential density of .5 (one-half) dwelling unit per acre shall be calculated for flood hazard areas shown on the latest Flood Insurance Rate Maps as Zone A, and within the historic high water mark of Amargosa Creek, Ana Verde Creek, Littlerock Wash, Big Rock Creek, Hunt Canyon or any natural blue-line creek, except where the Land Use Map indicates lower densities in these areas.

3. In hillside areas, density calculation will also be subject to the provisions of the City’s Hillside Management Ordinance.

Policy S1.1.1: Provide copies of geotechnical reports for projects located within the Alquist-Priolo Special Studies Zone, as shown on the Overlay Map, to the State Division of Mines and Geology.

Policy S1.1.2: Assist developers in obtaining necessary technical and policy information regarding seismic hazards.
Policy S1.1.3: Require geotechnical studies, to be reviewed and approved by the City’s geologist, for development proposals in areas where geotechnical hazards may be present, and implement the recommendations of those reports as deemed necessary by the City.

Policy S1.1.4: Require appropriate structural setbacks from active fault rupture traces in accordance with Alquist-Priolo standards and as required by the City, based on geotechnical analysis.

Policy S1.1.5: Require structural setbacks or special foundations for structures within potentially active fault zones as determined by the City, based on geotechnical analysis.

Policy S1.1.6: Require special foundations within inactive fault zones if determined necessary by the City.

Policy S1.1.7: Restrict location of utility lines, whether above or below ground, within 50 feet of a fault trace, except to cross the fault trace. Utility lines crossing fault traces should be specifically designed to withstand the expected movement of the earth in these locations. Utility lines as defined here would include, but not be limited to, electricity, water, natural gas, and sewer.

Policy S1.1.8: Require that all structures should meet or exceed state required earthquake resistant design standards.

Policy S1.1.9: Review development proposals located in or immediately adjacent to areas of soil instability, liquefaction areas, and steep slopes to determine if a significant constraint exists and to determine appropriate land use or hazard mitigation methods, and require compliance with any such measures identified.

**Geologic Hazards**

Refer to GPEIR A3, A4, A18, A22, B1, Policy L3.1.2, Policy S1.1.3, and Policy S1.1.9.

**Soil Erosion**

Refer to GPEIR A4, A18, A22, B2, Policy S1.1.3, and Policy S1.1.9.

**HAZARDS AND HAZARDOUS MATERIALS**

**Release of Hazardous Materials**

Implementation Program S-A17: Hazardous Waste Management Plan. The City will prepare a Hazardous Waste Management Plan that will assure that hazardous waste facility sites and adjacent land uses are compatible with existing development and that hazardous materials and wastes are stored, used,
transported, treated, and disposed of property. This plan will be adopted and implemented in accordance with state law.

Policy S2.3.1: Coordinate with Los Angeles Fire Department to develop a listing of all hazardous waste generators that could affect City residents.

Policy S2.3.2: Continue to support and encourage state, city, and county efforts to identify existing or previously existing hazardous waste generators or contaminated sites.

Policy S2.3.3: Require that soils containing toxic or hazardous substances be cleaned up to the satisfaction of the agency having jurisdiction, prior to the granting of any permits for new development.

Policy S2.3.4: Restrict or prohibit land uses and activities that generate excessive amounts of hazardous materials or wastes that cannot be properly maintained or disposed.

Policy S2.3.5: Promote the routing of vehicles carrying potentially hazardous materials along transportation corridors that reduce the risk to the public and sensitive environmental areas. Cooperate with regional agencies in developing such routing systems.

**Hazardous Waste Site**

Refer to GPEIR A17, Policy S2.3.1, Policy S2.3.2, Policy S2.3.3, Policy S2.3.4, and Policy S2.3.5.

**Create or Expose Persons To A Health Hazard**

Refer to GPEIR A17, Policy S2.3.1, Policy S2.3.2, Policy S2.3.3, Policy S2.3.4, and Policy S2.3.5.

**HYDROLOGY AND WATER QUALITY**

**Short-Term Surface Water Quality**

Policy ER5.2.3: Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

**Long-Term Surface Water Quality**

Policy CD8.4.4: Landscaping shall be provided for erosion control where appropriate, as required in the City’s Engineering Design Standards.
Flood Hazards

Policy S1.2.1: Require that new development should not be exposed to flood hazards or contribute to an existing flood hazard, in accordance with the City’s Floodplain Management Ordinance and related criteria within the City’s Engineering Design Standards.

Policy S1.2.2: Require that building foundations be a minimum of one (1) foot above the 100-year flood elevation, unless alternative diversion methods are approved by the City Engineer.

Policy S1.2.3: Require that grading of floodways shall be in a manner which allows for groundwater recharge and protection of projects from flooding.

Policy S1.2.4: All required primary and secondary access and egress routes for all new development should be "dry" access located outside of the 100-year flood plain.

Policy S1.2.5: Consider the operability of natural gas, electric, water and sewer services during the occurrence of flooding in review of project design.

Policy S1.2.8: Ensure that new development complies with floodplain zoning and watershed management regulations.

Policy S1.2.9: Preserve and restore the natural and beneficial values served by floodplains to the extent feasible, consistent with public health, safety and welfare.

Policy S1.2.10: Promote open space and recreational uses in designated flood zones, unless mitigation of the hazard can allow other types of development.

Localized Flooding

Policy S1.2.6: Require that grading and other methods of water diversion be used to retard water runoff, where appropriate.

Policy S1.2.7: Ensure that storm water drainage is designed for peak flow conditions.

Policy S1.2.11: Implement the City’s Master Drainage Plan, through the development review process and capital improvement program.

Policy S1.2.12: Monitor and require continued maintenance of drainage basins throughout the City to ensure maximum flood protection from existing facilities and prevent downstream flood hazards.

Policy S1.2.13: Implement public financing programs where feasible, to provide for required drainage improvements, and coordinate design and construction of flood control improvements with adjacent jurisdictions where appropriate.
Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.1.5: When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire and other community facilities, prior to granting conditional approval of development applications.

Policy PS1.1.6: When reviewing applications for land use designation changes (i.e., zone change, General Plan Amendment, specific plan amendment), conduct a thorough analysis of the impacts of the proposed change on all elements of the City’s infrastructure systems, and require mitigation as deemed appropriate.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.
Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.6: Where feasible, require that consideration be given to sharing drainage facilities between adjacent subdivisions, with the cost shared on a "fair share" basis.

Policy PS1.2.7: Ensure that street rights-of-way, drainage facilities, site grading, or other similar public infrastructure are not aligned in a manner that increases the developability of a single property at the expense of an adjacent property, unless so required by regional infrastructure plans.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Policy PS1.3.3: Encourage development, which fully utilizes existing infrastructure systems, while decreasing the need for costly extensions of infrastructure into undeveloped areas.

Policy PS1.3.4: Encourage clustering of development where appropriate, to maximize use of infrastructure.

Policy PS1.3.5: Adopt comprehensive planning documents such as area plans, specific plans and development agreements, to specify the nature, timing and financing of public improvements and services.

Policy PS1.3.6: Encourage mixed use development, to maximize use of infrastructure system.

Policy PS1.4.1: Adopt and annually update the City’s Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with this General Plan.

Policy PS1.4.2: Adopt and implement service level standards for roads, drainage, and park facilities, through on-going monitoring of existing levels of service and through the CIP.

Policy PS1.4.3: Adopt, implement, and annually review user fee and impact fee programs, to support the cost of constructing capital facilities and providing services.

Policy PS1.4.4: Explore and implement a variety of public financing methods to fund infrastructure improvements, including assessment districts, Mello-Roos community facilities districts, redevelopment funds, block grant funds, and/or combinations of these and other available funding sources.

Policy PS1.4.7: Evaluate infrastructure facilities and service levels within developed areas which annex to the City, and promote programs to retrofit street, drainage, and sewer improvements where warranted.
Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.2: Inform adjacent cities, town councils and county agencies of City-initiated planning and public works projects which may impact their infrastructure systems, and consider their input and recommendations in the land use decision process.

Policy PS1.5.4: Participate in regional efforts to gain State or Federal funding for area-wide improvements.

Policy PS3.1.1: Continue the drainage impact fee program and periodically adjust fees as needed.

Policy PS3.1.2: Evaluate the impact of all new development and expansion of existing facilities on storm runoff and ensure that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development that generates it.

Policy PS3.1.3: Make use of interim local drainage detention basins to slow stormwater runoff, until such time as permanent drainage facilities are constructed.

Policy PS3.1.4: Through the development review process, reserve land from development in appropriate locations for construction of drainage facilities.

Policy PS3.1.5: Require and provide for on-going maintenance of drainage and detention facilities, to ensure their continued effectiveness in controlling runoff.

Policy PS3.2.3: Where feasible, combine drainage facilities with opportunities for recreation, as in placement of trails within drainage easements, or placement of ball fields within detention areas.

**Groundwater**

Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.

Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.
Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.

Policy ER4.2.4: Coordinate with local water agencies to monitor ground water levels, State water allocations and development approvals, to assure that development does not outpace long-term water availability. In the event applicable water agencies notify the City that ground water levels and State water allocations are insufficient to serve existing development or projected development, the City will determine whether it is appropriate to reevaluate this General Plan and take other appropriate actions, as permitted by law.

Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.2: Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for groundwater recharge within the Planning Area; through the land use planning process, ensure that important recharge areas are retained for that use.

Policy ER4.3.3: Continue to seek out long-range water management techniques as new technology is developed; promote implementation of systems which are feasible and appropriate to the Planning Area.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.

Policy ER4.3.5: Participate in regional efforts to retain imported water allocations and seek out other sources as they become available.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.
Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff’s department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

BIOLOGICAL RESOURCES

Jurisdictional Waters and Wetlands

Policy ER2.1.3: Solicit and utilize all available sources of local, regional, state and federal funds to acquire significant wetland areas, in order to minimize the disturbance and prevent damage from erosion, turbidity, siltation, a loss of wildlife and vegetation, or the destruction of the natural habitat.

Policy ER2.1.4: Preserve natural drainage courses and riparian areas where significant concentrations of ecological resources exist.

Policy ER2.1.5: Preserve and maintain significant Joshua tree woodlands and other significant habitat areas. Early in the review of development projects, the feasibility of preserving any significant vegetation present on-site should be examined.

Native Vegetation and Sensitive Species

Compliance with Policy ER2.1.5 and the following is required:

Policy ER2.2.1: Cooperate with the preparation and the implementation of the West Mojave Coordinated Management Plan for protection of desert tortoise and Mohave ground squirrel.
CULTURAL RESOURCES

Archaeological and Paleontological Resources

Policy ER7.1.3: Require that new development protect significant historic, paleontological, or archaeological resources, or provide for other appropriate mitigation.

Policy ER7.1.4: Develop and maintain a cultural sensitivity map. Require special studies/surveys to be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map.

Policy ER7.1.6: Cooperate with private and public entities whose goals are to protect and preserve historic landmarks and important cultural resources.

Historical Resources

Refer to GPEIR Policy ER7.1.3, Policy ER7.1.4, and Policy ER7.1.6 above, and the following:

Policy ER7.1.1: Identify and recognize historic landmarks from Palmdale's past.

Policy ER7.1.2: Promote maintenance, rehabilitation, and appropriate reuse of identified landmarks where feasible.

Policy ER7.1.7: Promote recognition, understanding and enjoyment of unique historical resources within the community by identifying resources through the use of landmark designation plaques, directional signage, self-guided tours, school curriculum, programs and events.

Policy ER7.1.8: Discourage historic landmark properties from being altered in such a manner as to significantly reduce their cultural value to the community.

Human Remains

Refer to GPEIR Policy ER7.1.4 and Policy ER7.1.6 outlined above, and the following:

Policy ER7.1.5: When human remains, suspected to be of Native American origin are discovered, cooperate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate disposition of the human remains and any associated grave goods.
POLICE PROTECTION

Police Protection Services

Policy PS5.2.3: Monitor staffing and service levels for law enforcement services and work with the Sheriff's Department to ensure adequate staffing to meet service level needs of the community.

Policy S2.5.1: Through the development review process, ensure that sites are designed so as to maximize safety and security of users. Site design should consider the following factors, at a minimum:

a. Visibility of user areas from the public right of way and/or adjacent properties;
b. Lighting of user areas;
c. Accessibility for patrol and emergency vehicles;
d. Legible street numbers from both front and rear, where appropriate;
e. Use of open fencing where needed for site visibility;
f. Avoidance of dead ends or tunnel-like passageways in the pedestrian circulation system;
g. Visibility of parking areas by site users and/or the public right-of-way;
h. Use and maintenance of appropriate landscaping to maintain visibility and accessibility;
i. Security fending to prevent trespass;
j. Prohibition of exterior ladders to permit roof access by trespassers;
k. Siting of laundry rooms, play areas and other accessory uses for maximum visibility and security; and
l. Designation of "defensible space" within project areas for site users.

Policy S2.5.2: Require all commercial and industrial projects to provide adequate lighting for buildings and parking areas, and visibility for patrol vehicles, to assist in law enforcement surveillance.

SCHOOL FACILITIES

School Facilities

Policy L6.1.1: On the Land Use Map, designate land for public uses to meet community needs for schools, parks, community facilities, open space, utilities, and infrastructure. The following land use designations have been established on the land use map to meet these needs.

1. Open Space: The Open Space (OS) designation is intended to identify and reserve land for both natural and active open space uses, including City parks. The designation identifies existing and acquired but not yet built park sites within the community, as well as lands dedicated to the City for open space purposes. The designation is appropriate to protect sites with physical limitations such as flood plains, very steep terrain.
(slopes steeper than 50 percent), or significant natural resources. Typical uses permitted within the open space designation include recreational uses, horticulture, agriculture, animal grazing or similar uses.

2. Public Facilities: The Public Facilities (PF) designation identifies land which is or will be utilized for various types of public facilities, including but not limited to schools, parks, libraries, hospitals, public safety and governmental facilities, sewer and water treatment plants, and landfills.

Existing or acquired public facility sites are designated PF on the land use map; however, public facilities may be allowed in other land use designations as established by the underlying zoning. Within the PF designation, uses are specifically identified by use type on the land use map. The maximum floor area designation within this designation is 1.0.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Policy PS4.1.1: Coordinate with school districts to identify appropriate sites and consider school district master plans in evaluating development proposals.

Policy PS4.1.2: Offer administrative, planning and engineering assistance to the school districts in reviewing school site plans with respect to City plans for drainage, traffic, adjacent land uses and other considerations.

Policy PS4.1.3: In review of development adjacent to school sites, ensure that street and lot placement, grades, walls and other design considerations are incorporated into the design so as to minimize potential conflicts with school uses.

Policy PS4.1.4: Condition approvals of development projects to meet the funding requirements of applicable school districts to the extent permitted by law.

Policy PS4.1.5: Support joint use of school and City park facilities, where appropriate, to meet the needs of the local community, through site location and planning, and assistance with construction funds.

Policy PS4.1.6: Provide demographic and growth data to the districts so as to assist them in development of facility master plans.

**PARKS AND RECREATIONAL FACILITIES**

**Parks and Recreation Facilities**

Policy PRT1.1.1: Of the 5 acres/1,000 population, active park land must comprise no less than 3 acres per 1,000 population; open space may comprise 1 acre per 1,000 population; and the remainder can be composed of other public recreational
facilities including Desert Aire Golf Course, portions of school sites which provide recreation facilities or play fields accessible to the public, or other comparable facilities. Of the 3 acre/1,000 population standard for active park land, develop 2 acres as community or specialty parks and 1 acre as neighborhood parks.

Policy PRT1.1.2: Ensure that park sites are located equitably throughout the City to maximize access to parks for all residents.

Policy PRT1.1.3: Provide a variety of parks throughout the City, including community and neighborhood parks, to meet the needs of all residents.

Policy PRT1.2.1: Collect park fees and review this fee annually to provide financing for improvement of parkland in Palmdale (Policy PS5.4.4).

Policy PRT1.2.4: Continue to use the City’s Capital Improvement Program as the mechanism for short-term planning for acquisition of park land and construction of park facilities.

Policy PRT4.1.1: Adopt the Multi-use Trails Plan, shown in Exhibit PRT-2, which shall delineate the multi-use trails system for the City of Palmdale. The trails plan shall include all trails shown within the Planning Area, including those trails designated by Los Angeles County. Examine the feasibility of extending the multi-use trail system along the Southern Pacific Railroad, the Palmdale Ditch, and Amargosa and Ana Verde Creeks.

Policy PRT4.2.1: Require dedication of trail easements and/or construction of trail improvements as a condition of approval of development, to the extent allowed by law.

Policy PRT4.2.4: Use the City’s Capital Improvement Program to provide short-term planning for acquisition and construction of trail segments.

Policy PRT5.1.1: Establish Class I, II and III bikeways throughout the planning area. Backbone Class I and II bikeways are shown on Exhibit PRT-2.

Policy PRT5.1.3: Reserve right-of-way, require dedication when appropriate, and ensure construction of bikeways through the development review process and Capital Improvement Program.

Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):

1. Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends.
2. Subdivision design should consider bicycle and pedestrian access to nonresidential uses. These areas are best accessed through perimeter (single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.

Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.

Policy PS5.4.1: Adopt and implement a standard of 5-acres of parkland per 1,000 population for the City.

Policy PS5.4.2: Implement the Parks, Recreation and Trails Element as a master plan for park acquisition and improvement.

Policy PS5.4.4: Refer to Policy PRT1.2.1, above.

Policy PS5.4.6: Explore various means of acquiring parkland and seek creative and flexible techniques to accomplish City park goals, including but not limited to fee vouchers in exchange for parkland.

**LIBRARY SERVICES**

**Library Services**

Policy PS5.3.1: Evaluate the existing and future library system in the Planning Area and plan for provision of sufficient facility space and materials to serve the population.

Policy PS5.3.2: Adopt and implement the following standards as a goal for library service to the community:

- 2.5 volumes per capita
- 8.5 periodicals per 1,000 population
- 0.5 staff per 1,000 population
- 5.0 reader’s seats per 1,000 population
- 0.8 square feet of building space per capita

Policy PS5.3.3: Maintain reciprocal agreements with the county library system and other institutions to provide an additional resource in the City.

Policy PS5.3.4: Promote the construction of new libraries and the expansion of existing libraries as required to meet the needs of existing and future populations.

Policy PS5.3.5: Encourage the provision of library outreach services for residents who cannot visit library facilities.
WATER

Water Supply and Demand

Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.

Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.

Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.

Policy ER4.2.4: Coordinate with local water agencies to monitor ground water levels, State water allocations and development approvals, to assure that development does not outpace long-term water availability. In the event applicable water agencies notify the City that ground water levels and State water allocations are insufficient to serve existing development or projected development, the City will determine whether it is appropriate to reevaluate this General Plan and take other appropriate actions, as permitted by law.

Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.2: Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for groundwater recharge within the Planning Area; through the land use planning process, ensure that important recharge areas are retained for that use.

Policy ER4.3.3: Continue to seek out long-range water management techniques as new technology is developed; promote implementation of systems which are feasible and appropriate to the Planning Area.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.
Policy ER4.3.5: Participate in regional efforts to retain imported water allocations and seek out other sources as they become available.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

**WASTEWATER**

**Wastewater Generation**

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required onsite infrastructure improvements pursuant to city standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required offsite improvements needed to support the project.
Policy PS1.1.3: Require that on and offsite improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made for maintenance of public improvements, prior to approval of any new development project.

Policy PS1.1.5: When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of backbone plans for roads, sewer, water, drainage and community facilities, prior to granting conditional approval of development applications.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction, and maintenance.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvement.

Policy PS1.4.1: Adopt and annually update the city’s Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with this General Plan.

Policy PS1.4.3: Adopt, implement, and annually review user fee and impact fee programs, to support the cost of constructing capital facilities and providing services.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff’s department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Policy PS2.2.1: Coordinate with the Los Angeles County Sanitation District to evaluate the sewage disposal system as often as necessary (at least biannually), to ensure adequacy of the system to meet changes in demand and changes in types of waste which occur as a result of development.

Policy PS2.2.2: Require new development to pay necessary fees for expansion of the sewage disposal system to the appropriate agencies, to handle the increased load which it will generate.

Policy PS2.2.3: Support the Los Angeles County Sanitation District in preparation of a master plan for regional sewer facilities in Palmdale.
Policy PS2.2.4: Require that all commercial, industrial, institutional, multiple family and single-family residential uses with lot sizes of less than one acre be connected to a public sewer system.

**SOLID WASTE**

**Solid Waste Disposal**

Policy PS6.1.1: Review proposed development with respect to the SWMP to ensure consistency.

Policy PS6.1.2: Base future decisions on franchise agreements on the SWMP.

Policy PS6.1.3: Continue to implement the City’s adopted waste reduction and recycling programs in compliance with the SWMP.

Policy PS6.1.4: Update and maintain the SWMP as needed, with a complete review at least every five years, to ensure that the Plan accurately reflects changing waste stream conditions, government regulations, and City goals.

**COMPLIANCE WITH STATUTES AND REGULATIONS**

Refer to Policies PS6.1.1, PS6.1.2, PS6.1.3, and PS6.1.4 outlined above.

**ELECTRICITY AND NATURAL GAS**

**Electricity**

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.
Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Policy PS1.6.1: Through adoption of an ordinance, regulate utility line and other utility infrastructure placement and require undergrounding where feasible.

Policy PS1.6.2: Coordinate installation of utility line placement with street construction where possible, to minimize cost.

Policy PS1.6.3: Through the development review process, protect existing utility easements and require dedication of additional easements where needed.

Natural Gas

Refer to Policies PS1.1.1, PS1.1.2, PS1.1.3, PS1.1.4, PS1.2.1, PS1.2.3, PS1.2.4, PS1.2.5, PS1.2.8, PS1.6.1, PS1.6.2, PS1.6.3 outlined above.

COMMUNICATION SYSTEMS

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.
Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

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2.0 Introduction and Purpose
2.0 INTRODUCTION AND PURPOSE

2.1 PURPOSE OF THE EIR

The City of Palmdale (City) is the lead agency under the California Environmental Quality Act (CEQA), and has determined that an Environmental Impact Report (EIR) is required for the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area (Expansion Area Amendment) (State Clearinghouse No. 2010091073). This EIR has been prepared in conformance with CEQA (California Public Resources Code [PRC] Section 21000 et seq.); CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.); and the rules, regulations, and procedures for implementation of CEQA, as adopted by the City of Palmdale. The principal CEQA Guidelines sections governing content of this document are Sections 15120 through 15132 (Contents of Environmental Impact Reports) and Section 15168 (Program EIR).

The purpose of this EIR is to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to avoid or lessen potentially significant effects of the proposed Expansion Area Amendment (project). The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B) and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6. For more detailed information regarding the proposed project, refer to Section 3.0 Project Description.

This EIR has been prepared as a Program EIR in accordance with Section 15168 of the CEQA Guidelines, which states the following:

(a) General. A Program EIR is an EIR, which may be prepared on a series of actions that can be characterized as one large project and are related either:

1. Geographically,
2. As logical parts in the chain of contemplated actions,
3. In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
4. As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(b) Advantages. Use of a Program EIR can provide the following advantages. The Program EIR can:

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

(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
(2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
(3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
(4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.
(5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

CEQA Guidelines Section 15168 describes the proper process for Program EIRs, as follows (emphasis added):

Use of the Program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach when individual activities within the program are proposed, the agency would be required to examine the individual activities within the program to determine whether their effects were fully analyzed in the Program EIR. If the activities would have no effects beyond those analyzed in the Program EIR, the agency could assert that the activities are merely part of the program, which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

This EIR has also been prepared as a project EIR in accordance with and within the meaning of Section 21090(b) (Redevelopment Projects) of the Public Resources Code and Section 15180(b) (Redevelopment Projects) of the CEQA Guidelines, which state that all public and private activities or undertakings pursuant to or in furtherance of a redevelopment project (in this case the Expansion Area Amendment), constitute a single project for purposes of CEQA, which shall be deemed approved at the time of the approval of the redevelopment project (in this case
the Expansion Area Amendment) by the City Council. No subsequent EIRs are required for individual components of the Expansion Area Amendment unless a subsequent EIR or supplement to the EIR is required by CEQA Guidelines Section 15162 (Subsequent EIRs and Negative Declarations) or Section 15163 (Supplement to an EIR), or to the extent additional environmental review is required by Section 15168 of the CEQA Guidelines as described above.

In accordance with Section 15121 of the CEQA Guidelines, the main purposes of this EIR are to:

- Provide decision-makers and the public with specific information regarding the environmental effects associated with the proposed project;
- Identify ways to minimize the significant effects of the project; and
- Describe reasonable alternatives to the project.

Mitigation measures are provided that may be adopted as conditions of approval to avoid or minimize the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the proposed project.

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

This document analyzes the environmental effects of the project to the degree of specificity appropriate to the current proposed actions, as required by Section 15146 of the CEQA Guidelines, and to a degree of specificity consistent with the information known at this time concerning the Expansion Area Amendment project and its implementing activities. The analysis considers the activities associated with the project to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

2.2 EIR SCOPING PROCESS

In compliance with the CEQA Guidelines, the City has taken steps to maximize opportunities to participate in the environmental process. During the preparation of the Draft EIR, efforts were undertaken to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments and inform the public of the Proposed Project. This included the distribution of an Initial Study and Notice of Preparation (NOP).
2.2.1 INITIAL STUDY

In accordance with Section 15063(a) of the CEQA Guidelines, the City undertook the preparation of an Initial Study. The Initial Study determined that a number of environmental issue areas may be impacted by implementation of the Proposed Project. As a result, the Initial Study determined that the EIR should address the Proposed Project’s potentially significant impacts on the following environmental issue areas:

- Earth (Geology and Seismic Hazards);
- Air (Air Quality, Global Climate Change);
- Water (Hydrology and Water Quality);
- Plant Life, Animal Life (Biological Resources);
- Noise;
- Risk of Upset, Human Health (Hazards and Hazardous Materials);
- Population, Housing (Population, Employment and Housing);
- Transportation/Circulation (Transportation and Circulation);
- Public Services (Police Protection, School Facilities, Parks and Recreational Facilities, Library Services);
- Energy (Other CEQA Considerations);
- Utilities (Electricity and Natural Gas, Communications Systems, Water, Wastewater, Solid Waste); and
- Cultural Resources.

Based on the Initial Study, issues for which no significant impacts are anticipated to occur are described in detail in the Initial Study (Appendix A) and addressed in Section 8.0, Effects Found Not To Be Significant, in this EIR.

2.2.2 NOTICE OF PREPARATION

Pursuant to the provision of Section 15082 of the CEQA Guidelines, the City circulated a NOP to public agencies, special districts, and members of the public requesting such notice for a 30-day period commencing on September 27, 2010 and ending on October 26, 2010. The purpose of the NOP was to formally convey that the City is preparing a Draft EIR for the Proposed Project and that, as Lead Agency, it was soliciting input regarding the scope and content of the environmental information to be included in the EIR. The Initial Study was circulated with the NOP. The NOP, Initial Study, and responses to the NOP are provided, respectively, in Appendix A, Initial Study/Notice of Preparation, and Appendix B, NOP Comments.

2.2.3 NOP SCOPING RESULTS

The specific environmental concerns outlined below were raised by responses to the NOP for the Proposed Project. NOP comments are provided in Appendix B.

- Potential removal or disturbance of unique, rare, threatened, or endangered species of plants and animals or suitable habitat for wildlife (Section 5.9, Biological Resources).

- Potential impacts to riparian resources (Section 5.9, Biological Resources).
• Mosquito breeding associated with BMPs and flood control facilities (Section 5.8, Hydrology and Water Quality).

• Erosion control, watershed management, rare and endangered species, vegetation, high Fire Hazard Severity Zones, archaeological and cultural resources, and the County Oak Tree Ordinance (Section 5.7, Hazards and Hazardous Materials; Section 5.8, Hydrology and Water Quality; Section 5.9, Biological Resources; Section 5.10, Cultural Resources).

• Potential impacts associated with historical use/storage of hazardous materials (Section 5.7, Hazards and Hazardous Materials).

• Potential impacts to Native American cultural resources (Section 5.10, Cultural Resources).

• Increased traffic at nearby railroad crossings, including pedestrian circulation patterns/destinations (Section 5.2, Transportation and Circulation).

• Potential impacts to Southern California Edison facilities (Section 5.18, Electricity and Natural Gas).

• Wastewater conveyance and treatment (Section 5.16, Wastewater).

2.3 COMPLIANCE WITH CEQA

2.3.1 PUBLIC REVIEW OF DRAFT EIR

The Draft EIR is subject to a 45-day review period by responsible and trustee agencies and interested parties. In accordance with the provision of Sections 15085(a) and 15087(a)(1) of the CEQA Guidelines, the City of Palmdale, serving as the Lead Agency: 1) publishes a notice of availability of a Draft EIR in newspapers of general circulation, which states that the Draft EIR will be available for review at City of Palmdale City Hall located at 38250 Sierra Highway; and 2) prepares and transmits a Notice of Completion (NOC) to the State Clearinghouse. Proof of publication is available at the City of Palmdale.

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing to the individual identified on the document’s NOC prior to the end of the public review period. During the public review period, the Palmdale Planning Commission will hold a regularly scheduled public meeting regarding the Draft EIR. The public will be afforded the opportunity to orally comment on the Draft EIR at the public meeting. Such comments shall be recorded and shall have the same standing and response requirements as written comments provided during the public review period. Upon the close of the public review period, the Lead Agency will then proceed to evaluate and prepare responses to all relevant oral and written comments received from both citizens and public agencies during the public review period.
2.3.2 FINAL EIR

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

2.4 INTENDED USES OF THIS EIR

The City of Palmdale, as the Lead Agency for this proposed project, will use this Program EIR in consideration of the proposed Expansion Area Amendment. This document will provide environmental information to several other agencies affected by the proposed project, or which are likely to have an interest in the proposed project. Various State and Federal agencies exercise control over certain aspects of the study area. The various public, private, and political agencies and jurisdictions with particular interest in the proposed project include, but are not limited to the following:

- Antelope Valley Air Quality Management District;
- Antelope Valley Joint Union High School District;
- California Air Resources Board (CARB);
- California Department of Conservation;
- California Department of Fish and Game;
- California Department of Transportation (Caltrans);
- California Department of Toxic Substances Control (DTSC);
- California Environmental Protection Agency (CalEPA);
- California Office of Emergency Services;
- California Public Utilities Commission;
- California Regional Water Quality Control Board (CRWQB);
- California Reclamation Board (CRB);
- City of Lancaster;
- County of Los Angeles;
- County Sanitation Districts of Los Angeles County;
- Los Angeles County Fire Department;
- Los Angeles County Sheriffs Department;
- Metropolitan Transportation Authority;
- Native American Heritage Commission;
- Palmdale Unified School District;
- Palmdale Water District;
- Southern California Association of Governments (SCAG); and
- U.S. Environmental Protection Agency (U.S. EPA).

2.5 FORMAT OF THE EIR

The Draft EIR is organized into 11 sections, plus five appendices, as follows.
Section 1.0, Executive Summary, provides a brief project description and summary of the environmental impacts and mitigation measures.

Section 2.0, Introduction and Purpose, provides CEQA compliance information.

Section 3.0, Project Description, describes the proposed project in detail indicating project location, background and history, and project characteristics, phasing and objectives, as well as associated discretionary actions required.

Section 4.0, Basis for Cumulative Analysis, describes the approach and methodology for the cumulative analysis.

Section 5.0, Environmental Analysis, contains a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term and long-term, and cumulative), recommended mitigation measures, and unavoidable adverse impacts.

Section 6.0, Alternatives, describes a reasonable range of alternatives to the proposed project or to the location of the project that could feasibly attain the basic project objectives.

Section 7.0, Other CEQA Considerations, discusses the long-term affects associated with the proposed project, including the potential growth associated with the proposed action and energy conservation.

Section 8.0, Effects Found Not To Be Significant, explains potential impacts that have been determined not to be significant.

Section 9.0, Significant Unavoidable Environmental Effects Which Cannot be Avoided if the Proposed Action is Implemented, discusses significant environmental changes that would be involved with the Proposed Project, should it be implemented.

Section 10.0, Significant Irreversible Environmental Changes Which Would be Involved if the Proposed Project Were Implemented, discusses significant irreversible environmental changes that would be involved with the Proposed Project, should it be implemented.

Section 11.0, References, identifies all Federal, State or local agencies, other organizations, and individuals consulted in the preparation of the EIR.

The following Appendices contain the technical documentation for the Proposed Project:

A. Initial Study Checklist/Notice of Preparation;
B. Notice of Preparation Comments;
C. Public Service and Utility Correspondence;
D. Air Quality/Climate Change Data; and
E. Noise Data.
2.6 CEQA DOCUMENT TIERING

Both the Public Resources Code and the CEQA Guidelines discuss the use of “tiering” environmental impact reports by lead agencies. Public Resources Code Section 21068.5 defines “tiering” as:

“The coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program or ordinance followed by narrower or site-specific environmental impact reports which incorporate by reference the discussion in any prior environmental impact report and which concentrate on the environmental effects which: (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior environmental impact report.”

Tiering is a method to streamline EIR preparation by allowing a Lead Agency to focus on the issues that are ripe for decision and exclude from consideration issues already decided or not yet ready for decisions (CEQA Guidelines Sections 15152 and 15385). According to CEQA Guidelines Section 15152 (a), “tiering” is defined as:

“Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.”

According to CEQA Guidelines Section 15385, “Tiering is appropriate when the sequence of EIRs is (a) from a general plan, policy, or program EIR to a program, plan, or policy EIR of a lesser scope or to a site-specific EIR…”

The concept of tiering anticipates a multi-tiered approach to preparing EIRs. The first-tier EIR covers general issues in a broader program-oriented analysis, including important program resource and mitigation commitments required to be implemented at the project-level. Subsequent tiers incorporate by reference the general discussions from the broader document, concentrating on the issues specific to the proposed action being evaluated (CEQA Guidelines Section 15152).

When an EIR has been prepared and certified for a program or plan consistent with CEQA’s tiering requirements, a Lead Agency for a later project pursuant to or consistent with the program or plan should limit the EIR on the later project to effects that were not examined as significant effects on the environment in the prior EIR. In those situations where a programmatic document does not specifically address and analyze the impacts and mitigation measures necessary for a project-level action, the project-level environmental review can be streamlined by tiering from the program-level documents. Agencies are encouraged to tier their CEQA analysis to avoid repetition of issues and to focus on the issues for decision at each level of review. Subsequent CEQA compliance involves either the preparation of an EIR or Negative Declaration.

For purposes of tiering, where a lead agency determines that a cumulative effect has been adequately addressed in the prior EIR, that effect is not treated as significant for purposes of the later EIR and need not be discussed in detail.
Further, significant environmental effects have been “adequately addressed” if the Lead Agency determines that the significant environmental effects:

- Have been mitigated or avoided as a result of the prior EIR and adopted findings in connection with that prior EIR; or
- Have been examined at a sufficient detail in the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means with the approval of the later project.

2.7 CONTEXT OF TIERING ANALYSIS

The City of Palmdale’s General Plan and Final GPEIR, the two guiding documents for physical growth within the City, were approved and certified by the Palmdale City Council on January 25, 1993 (Resolution No. 93-10). The GPEIR provides baseline existing conditions based on the data available at the time of document preparation. The GPEIR was prepared to analyze the potential impacts from full buildout of the City’s General Plan, including the provision of roadways, infrastructure, and development of urban uses. The GPEIR analyzed the impacts resulting from future development in accordance with the General Plan Land Use Plan and typical land use densities. The GPEIR also analyzed the impacts associated with implementation of the General Plan policies that are intended to guide growth and development in the City to buildout. The environmental issues addressed in the GPEIR include geology, air quality, water resources, biological resources, natural resources, land use, population, housing, transportation and circulation, public services (fire, police, schools, recreation and public facilities), public utilities (water, wastewater, storm drainage, solid waste and energy), risk of upset, noise, light, aesthetics and cultural resources. The GPEIR concluded that implementation of the City’s General Plan would result in significant impacts involving the following issue areas:

- Degradation of air quality;
- Biological resources;
- Cumulative impacts to water resources;
- Loss of open space;
- Risks associated with earthquake hazards;
- Future jobs/housing imbalance; and
- Traffic impacts at 11 roadway links.

All other impacts were found to be less than significant through the mitigation measures imposed under the GPEIR and implementation measures contained within the General Plan.

Where appropriate, this Draft EIR tiers off analysis in the GPEIR. Under CEQA Guidelines Section 15152, tiering is appropriate when the sequence of analysis follows from an EIR prepared for a general plan, policy, or program to an EIR of lesser scope, or to a site-specific EIR. Under CEQA, the GPEIR is considered a first tier document and this Draft EIR for the Expansion Area Amendment is considered a second tier document. While a second tier analysis can rely on a first tier analysis, it has the obligation to discuss any changed circumstances or new information that might alter the first tier analysis. Under principals of tiering, if a first tier document found significant impacts, then the second tier EIR must require implementation of the first tier mitigation measures unless the analysis explains that the
measures are not applicable or that other mitigation measures can replace the previous measures and similarly reduce the impacts to a level of insignificance. Significant environmental effects have been “adequately addressed” if the lead agency determines that they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report. As such, each environmental analysis section in this Draft EIR identifies the avoidable and unavoidable significant environmental impacts previously identified in the GPEIR and the required mitigation measures. This Draft EIR also identifies whether other feasible mitigation measures that were not previously considered would reduce potential impacts to less than significant.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The City has identified the following actions that have occurred within the proposed Expansion Area over the past 18 years subsequent to certification of the GPEIR in 1993:

- **Transit Village Specific Plan** – Allows for a comprehensive transit oriented development consisting of approximately 110 acres located between Technology Drive and Avenue Q-3 and between 3rd Street East and the Metrolink Railroad tracks adjacent to Sierra Highway. The project area includes the Palmdale Transportation Center, which was constructed in 2004. The only other development activity that has occurred within the area is the construction of R. Rex Parris High School by the Antelope Valley Union High School District.

- **Former Palmdale Business Park Specific Plan** – General Plan Amendment (GPA) 09-01, Zone Change (ZC) 09-01 and Tentative Parcel Map (TPM) 070999 were proposals by the City of Palmdale for the following items related to early activities associated with the Palmdale Hybrid Power Project (PHPP): a) General Plan Amendment (GPA) 09-01 was a proposal to amend the General Plan Land Use designation on 613.4 gross acres from SP-10 (Palmdale Business Park Specific Plan) to IND (Industrial); b) Zone Change (ZC) 09-01 was a proposal to amend the Zoning designation on 613.4 gross acres from SP-10 (Palmdale Business Park Specific Plan) to M-2 (General Industrial); and c) Tentative Parcel Map (TPM) 070999 was a proposal to subdivide the existing 613.4 gross acre site into two parcels to include existing lot consolidation, abandonment of existing rights-of-way and easements as necessary, and dedication of new rights-of-way and easements. The project site is generally located on the south side of Avenue M, east of Sierra Highway and the Union Pacific Railroad, west of the alignment of 15th Street East and USAF Plant 42, and north of the alignment of Avenue M-12 and USAF Plant 42. These projects were approved by the Palmdale City Council on April 1, 2009.

- **Site Plan Review 12-05-1** – Development of an 8.8-acre site into a distribution lumber yard consisting of a building with a total of 48,000 square feet and outdoor storage located at 39530 12th Street East.

- **Conditional Use Permit 95-1** – Establishing a 12,157 square foot mortuary on 1.32 acres at 1755 East Avenue R.
Conditional Use Permit 09-09 – Request to construct an auto wrecking yard facility on 18.02 acres, including three buildings totaling 22,965 square feet, located on the west side of 8th Street East approximately 800 feet south of Rancho Vista Boulevard.

Site 9 – Annexation (1999-03) of approximately 155.2 acres generally located north of Rancho Vista Boulevard at 30th Street East. The site consists of a large aircraft manufacturing facility.

Avol Properties – The City demolished 67 blighted houses located between Division Street and 3rd Street East, north of Avenue Q.

Site Plan Review 12-00-1 – Modification of an existing 9,799 square foot building and addition of an additional 3,000 square foot building for office and maintenance/storage use for the Palmdale School District on a 5 acre lot, located at the northeast corner of 10th Street East and the alignment of Avenue P-8.

R. Rex Parris Continuation High School – Located at 38801 Clock Tower Plaza Drive, construction of an alternative school for grades 9-12 with a current enrollment less than 600.

Conditional Use Permit 97-16 – Located at 1516 East Palmdale Boulevard; 4740 square feet of auto repair.

Site Plan Review 7-99-1 – Located at 1138 East Palmdale Blvd; 7000 square foot retail.

Conditional Use Permit 01-14 – Located at 1328 East Avenue R; 4,186 square foot religious assembly use.

Conditional Use Permit 02-10 – Located at 1675 E Avenue Q-15; 10,000 square feet religious assembly use.

As is evidenced above, there have been no major changes in circumstances that affect the baseline conditions or the results of the analysis in the GPEIR, since certification of the GPEIR. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions associated within the proposed Expansion Area Amendment is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations; refer to Section 3.0, Project Description. Thus, baseline conditions and analysis determinations identified in the GPEIR are applicable to the proposed Expansion Area Amendment for purposes of this Draft EIR.

Since growth has occurred within areas of the City outside the proposed Expansion Area, the City conducted a review of the General Plan to determine whether adjustments were needed, in order to maintain the community’s vision for development as contemplated in the General Plan goals, policies, and objectives. The findings of this review were presented in the State of the City Report (SOC) prepared by Impact Sciences in June 2009. The SOC Report measures the General Plan’s efficacy by evaluating how the City has built out over time, assessing whether the current course of action identified in the General Plan would result in environmental impacts
The environmental analysis for the proposed Expansion Area Amendment project is tiered from the GPEIR, as updated by the State of the City Report, in accordance with CEQA Guidelines Sections 15152 and 15168, and Public Resources Code Section 21094. The GPEIR analyzed full implementation of the General Plan in accordance with the General Plan Land Use Plan and typical land use densities, and identified policies and mitigation measures to mitigate the significant adverse project and cumulative impacts associated with the growth. The proposed project does not involve a General Plan Amendment. Permitted land uses within the proposed Expansion Area would be in accordance with those permitted by the General Plan Land Use Plan. Buildout of the proposed Expansion Area was considered in the GPEIR analysis since additional development within the Expansion Area will be consistent with the Land Use Plan, and the Expansion Area’s land uses are based upon the development permitted by the Land Use Plan.

Accordingly, the tiering of environmental analysis for the proposed project allows this Draft EIR to rely on the GPEIR, as updated by the State of the City Report, for the following:

- Discussion of general background and setting information for environmental topic areas;
- Overall growth related issues; and
- Long term cumulative impacts assessment.

2.8 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with Section 15148 of the CEQA Guidelines, which encourages “incorporation by reference” as a means of reducing redundancy and length of environmental reports. The following documents, which are available for public review at the City of Palmdale Planning Department, located at 38250 Sierra Highway, Palmdale, California, are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized within this EIR. A brief synopsis of the scope and content of these documents are provided below:

City of Palmdale General Plan (1993) (General Plan). The General Plan was adopted by the Palmdale City Council (Resolution No. 93-10) on January 25, 1993. The purpose of the General Plan is to provide a general, comprehensive and long-range guide for community decision-making. The elements of the General Plan are:

- Land Use;
- Circulation;
- Environmental Resources;
- Public Services;
- Safety;
- Noise;
- Housing;
- Parks, Recreation, and Trails; and
- Community Design.
The General Plan is cited in several sections of this EIR in regards to land use designations and development standards and relevant goals, objectives, and policies relative to the proposed project.

Final Program Environmental Impact Report for the City of Palmdale General Plan (SCH No. 87120908) (Michael Brandman Associates, February 1, 1993) (GPEIR). The Final GPEIR serves as a first tier environmental document for purposes of this Draft EIR; refer to the Context of Tiering Analysis discussion above.

City of Palmdale State of the City Report (Impact Sciences, Inc., June 2009). The State of City Report provides an analysis of the City’s General Plan and GPEIR in terms of the growth that has occurred within the City between 1993 (when the General Plan/GPEIR were prepared) and 2009. The environmental analysis for the proposed Expansion Area Amendment project is tiered from the GPEIR, as updated by the State of the City Report; refer to the Context of Tiering Analysis discussion above.

City of Palmdale Municipal Code. This Code consists of all the regulatory and penal ordinances and administrative ordinances of the City of Palmdale. It is the method the City uses to implement control of land uses, in accordance with General Plan goals and policies. The City of Palmdale Zoning Ordinance identifies land uses permitted and prohibited according to the zoning category of particular parcels. The provisions and standards contained in the Code are cited in several sections of this EIR.

Air Installation Compatible Use Zone Study, Air Force Plant 42, Palmdale, California, 2002. The Air Installation Compatible Use Zone (AICUZ) Study is an update of the 1990 Production Flight Test Installation, Air Force Plant 42 (Plant 42) Air Installation Compatible Use Zone (AICUZ) Study. The update presents and documents changes to the AICUZ amendment for the period 1991-2001 and is based on the 2001 aircraft operations condition, to include anticipated future operations and aircraft maintenance activity. The information is provided to assist local communities and serve as a tool for future planning and zoning activities. The AICUZ Study describes aircraft operations, the effects of aircraft operations, land use analysis, and implementation. The land use analysis addresses land use compatibility for Plant 42 with areas subject to aircraft noise and accident potential (i.e., Palmdale, Lancaster and Los Angeles County). The AICUZ study is cited in the EIR regarding the project’s proximity to Air Force Plant 42 and the applicable policies and recommendations regarding land use compatibility.

Redevelopment Plans for Project Area No. 2, Project Area No. 3, and Project Area No. 4. The Redevelopment Plans for Project Area No. 2, Project Area No. 3, and Project Area No. 4 were amended by the City Council on March 24, 1994, which respectively, amended and restated in their entirety the Redevelopment Plans for Project Area No. 2, Project Area No. 3 and Project Area No. 4 and merged Project Area No. 2, Project Area No. 3 and Project Area No. 4 (“Merged Project Area”). The Amended Plans identify the authority and intentions of the CRA and generally outlines how redevelopment and revitalization would occur within the Merged Project Area, as to be amended by the proposed Expansion Area Amendment. As part of the Amended Plan, general goals and objectives were established to guide actions within the Merged Project Area.
Palmdale Transit Village Specific Plan/General Plan Amendment and Zone Change Final Environmental Impact Report, (SCH No. 2006081052) (July 2007). This EIR, which was certified by the Palmdale City Council (Resolution No. CC 2007-174) on July 2, 2007, was prepared to analyze the potential impacts from development of the Palmdale Transit Village Specific Plan (Transit Village Specific Plan). The Transit Village Specific Plan proposed to develop a mixed-use transit oriented development in the vicinity of the Palmdale Transportation Center. The EIR concluded significant and unavoidable impacts to air quality (short and long-term) and traffic and circulation. All other impacts were found to be less than significant through the mitigation measures imposed under the EIR.

Palmdale Business Park Center Specific Plan, Final EIR (SCH No. 93061074) (URS Corporation, May 1995). This EIR, which was certified by the Palmdale City Council on March 20, 1996 (Resolution No. 96-38), was prepared to analyze the potential impacts from development of the Palmdale Business Park Center Specific Plan (Business Park Specific Plan). The Business Park Specific Plan proposed to develop commercial, business park, airport-related, light industrial, and open space uses, as well as a golf course northwest of Plant 42. The EIR concluded significant and unavoidable impacts to air quality (short and long-term), water resources, biological resources, and land use (loss of open space). All other impacts were found to be less than significant through the mitigation measures imposed under the EIR. In 2009 the Specific Plan designation was removed from the area and the land use designation is now IND (Industrial) and PF (Public Facility). However, no new development activities have occurred within the area; thus, the existing conditions information provided in the Final EIR remains relatively unchanged.
5.8 Hydrology and Water Quality
5.8 HYDROLOGY AND WATER QUALITY

5.8.1 INTRODUCTION

This section describes the surface and groundwater resources, and hydrological and water quality conditions within the proposed Expansion Area. This section is based upon the following resources:

- City of Palmdale General Plan Environmental Resources, Public Services, and Safety Elements (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993);
- City of Palmdale Master Plan of Drainage Update (AKM Consulting Engineers, August 1996); and

The GPEIR provides baseline existing conditions based on the data available at the time of document preparation. The SOC Report evaluates the changes that have occurred in the City from the time the GPEIR was prepared and is incorporated as appropriate.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with hydrology and water quality as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.3 (Water Resources) (pages 4-44 through 4-70). The GPEIR concluded the following:

- Urban contamination potential within stormwater discharge is a primary concern and new development would be required to obtain NPDES Permits. Short-term and long-term water quality impacts would be reduced following compliance with NPDES requirements and General Plan Policies and programs. This impact was concluded to be less than significant.

- Flood hazards may be compounded with increased development, without sensitive planning of developments and completion of temporary detention or permanent Master Plan of Drainage facilities. Potential flooding hazards would be reduced following compliance with General Plan Policies and programs. This impact was concluded to be less than significant.
• Lack of a completed regional drainage system would continue to result in local flooding problems. Potential drainage and street flooding impacts would be reduced following completion of temporary detention or permanent Master Plan of Drainage facilities, and compliance with General Plan Policies and programs. This impact was concluded to be less than significant.

• The increase in the overall intensity of development at buildout would increase the demand for water resources to supply the needs of future residents and developments. It was also concluded groundwater resources would become a scarce commodity, without the implementation of measures to abate the lowering of the water table. Impacts to groundwater resources would be reduced with implementation of water conservation and recharge programs. This impact was concluded to be less than significant.

5.8.2 EXISTING CONDITIONS

SURFACE WATERS

The proposed Expansion Area forms part of the Antelope Valley, which is a large, closed basin in the western Mojave Desert. With annual average precipitation of less than ten inches on the valley floor and over 12 inches in the local mountains, the Valley’s climate is generally dry. Runoff water from the San Gabriel Mountains flows in the local washes and creeks, and ultimately toward Rogers, Rosamond, and Buckhorn Dry Lakes. The major watercourses flowing through Palmdale are Amargosa Creek, Anaverde Creek, Little Rock Wash, and Big Rock Wash. Given the area’s arid climate, flow through these creeks and washes generally occurs only during heavy rainfall or from the local mountains’ melting snowpack. The primary surface water source located in the project vicinity is Anaverde Creek.

Anaverde and Pearland Watersheds

The proposed Expansion Area is located within the Anaverde and Pearland Watersheds. The 1988 City of Palmdale Master Plan of Drainage was prepared in order to analyze the pre- and ultimate development conditions (10-, 25-, and 50-year storms) for six watersheds, including the Anaverde and Pearland Creek Watersheds. Significant additional information and changes within the Anaverde and Pearland watersheds (among other watersheds) were addressed in the 1996 Master Plan of Drainage Update (Master Plan Update).

Anaverde Watershed. Master Plan Update Figure IV-1 (Anaverde Watershed Major Subareas and Drainage Patterns) illustrates the boundaries of the Anaverde Watershed. As illustrated in Master Plan Update Figure IV-1, the Anaverde Watershed extends northerly and easterly from the Sierra Pelonas to the Antelope Valley Freeway, and northerly through Palmdale, Lancaster, and unincorporated Los Angeles County. Runoff from the Sierra Pelona Mountain Range collects in Anaverde Creek and drains easterly through Anaverde Valley. The creek then flows through the central portion of Palmdale and northerly along Sierra Highway, and to a retention basin in United States Air Force Plant 42 (Plant 42).
Water that overflows the retention basin flows north along 20th Street East and 30th Street East, merging with Amargosa Creek at Avenue E. The watershed’s significant features are the Antelope Valley Freeway, which is located in the western part of the watershed and forms a barrier to the upstream flows, Sierra Highway and Union Pacific Railroad (UPRR), which run through the center, and Plant 42, which encompasses the northeastern portion of the watershed south of Avenue M.

The Anaverde Watershed was studied in two segments: upstream and downstream of the Antelope Valley Freeway. A portion of the proposed Expansion Area is located in the watershed’s downstream segment. The methodology and assumptions used in the watershed analysis are described in detail in Master Plan Update Sections IV-2.2 and IV-3.1. Master Plan Update Tables IV-2 through Table IV-9 outline the existing and proposed detention basin facilities. Master Plan Update Table IV-10 provides the computed peak flows for the pre-development and ultimate development conditions at selected locations within the Anaverde Watershed.

Pearland Watershed. Master Plan Update Figure V-1 (Pearland Watershed Major Subareas and Drainage Patterns) illustrates the boundaries of the Pearland Watershed. As illustrated in Master Plan Update Figure V-1, the Pearland Watershed extends northerly from Mount Emma Ridge in the Angeles National Forest, through unincorporated Los Angeles County, Palmdale, and Lancaster, and to the normally dry Rosamond Lake.

The drainage patterns for the Pearland Watershed were studied in two segments: upstream and downstream of future Route 138 (vicinity of Avenue P-8). A portion of the proposed Expansion Area is located in the watershed’s downstream segment. The methodology and assumptions used in the watershed analysis are described in detail in Master Plan Update Sections V-2.2 and V-3.1. Master Plan Update Tables V-3 through Table V-16 outline the existing and proposed detention basin facilities. Master Plan Update Table V-17 provides the computed peak flows for the pre-development and ultimate development conditions at selected locations within the Pearland Watershed.

A priority list was prepared for the regional facilities, as outlined in Master Plan Update Table I-1. The priority list for the local facilities would need to be developed based upon the regional facility availability. The recommended local and regional facilities are illustrated in Master Plan Update Exhibits I-1 through I-4.

**Floodplain Mapping**

In Palmdale, intermittent flooding and sheetwashing occur along major drainages and adjacent areas. Within the project area, floodplains are associated with the Anaverde Creek drainage; refer to SOC Figure 2.0-5 (Flood Plains). As indicated in SOC Figure 2.0-5, the majority of the project area is not exposed to potential flood hazards. However, the eastern and southern boundaries of Site 10 (Lockheed Martin), generally located northwest of the intersection of Blackbird Drive and 15th Street East, is located within a flood hazard area (100-Year Flood Zone). Additionally, portions of the project area generally bound by Avenue P on the north, Avenue R on the south, Sierra Highway on the east, and Division Street on the west, are within a flood hazard area.
Flood hazard areas identified on the Flood Insurance Rate Maps (FIRM) are identified as a Special Flood Hazard Area (SFHA). SFHAs are defined as the area that will be inundated by the flood event having a one-percent chance of being equaled or exceeded in any given year. The one-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled according to zones. As indicated on the FIRM, portions of the proposed Expansion Area are located within SFHAs; refer to the Federal Emergency Management Agency Section below for a detailed discussion.

**STORM DRAINAGE/LOCALIZED FLOODING**

Rainfall in the Antelope Valley is relatively sparse. However, localized flooding has occurred in Palmdale when rainfall is heavy and prolonged, generating increases in storm runoff. Urban development reduces the total ground absorption area by creating impermeable surfaces (structures, pavement, streets, etc.). Storm runoff, increased by the presence of impermeable surfaces, flows from developed areas, contributing to street flooding. Additionally, since most drainage courses in Palmdale are unimproved, stormwater overflows into adjacent flat areas, contributing to sheet flow.

Throughout most of the year, very little surface runoff from the upper watersheds ever reaches the City. However, given the lack of a completed regional drainage system, localized flooding has occurred in Palmdale when rainfall is heavy and prolonged, generating increases in storm runoff. Impermeable soils in hillside and some developed areas cause increased runoff velocity. The high velocity, which prevents substantial ground seepage, along with the lack of a storm drainage system, overflow existing flood control facilities causing intermittent flooding in the flat low-lying areas. The velocity also makes the runoff erosive and hazardous.

Although, the amount and frequency of rain is variable, and flood waters may be diverted, the lack of a completed regional drainage system continues to result in local flooding problems. The City’s Master Drainage Plan is anticipated to mitigate localized flooding impacts within the project area, City, and downstream. Retention and detention basins, pipes, and channels are proposed throughout the City to protect existing and future development from flooding.

**STORMWATER QUALITY**

This section discusses typical pollutants found in stormwater runoff and discusses the types of contaminants that may be found in existing stormwater runoff.

**Point Source Pollutants**

Historically, point-source pollutants have consisted of industrial operations with discrete discharges to receiving waters. Over the past several decades, many industrial operations have been identified as potential sources of pollutant discharges. For this reason, many types of industrial operations require coverage under the State of California’s General Industrial Permit. This permit regulates the operation of industrial facilities and monitors and reports mechanisms to ensure compliance with water quality objectives. State regulations require industrial operations to comply with California’s General Industrial Permit, which significantly lessens impacts on the receiving waters’ water quality. However, industrial operations that are not covered under the General Industrial Permit’s jurisdiction may still have the potential to affect...
the water quality of receiving waters. These industrial operations would be considered non-point-source pollutants.

**Nonpoint Source Pollutants**

A net effect of urbanization can be to increase pollutant export. However, an important consideration in evaluating stormwater quality from a project is to determine whether it impairs the beneficial use to the receiving waters. Nonpoint source pollutants have been characterized by the major categories outlined below, in order to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements, however there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Background of these standard water quality categories provides an understanding of typical urbanization impacts.

**SEDIMENT**

Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is stream bank erosion, which may be accelerated by increases in peak rates and volumes of runoff due to urbanization.

**NUTRIENTS**

Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes large amounts of oxygen, which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching groundwater. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. As a general rule of thumb, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are 1) surface algal scums; 2) water discolorations; 3) odors; 4) toxic releases; and, 5) overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

**TRACE METALS**

Trace metals are primarily a concern because of their toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment and this effectively reduces the level, which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out rapidly.
and accumulate in the soils. Also, urban runoff events typically occur over a shorter duration, which reduces the amount of exposure that could pollute the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

**OXYGEN-DEMANDING SUBSTANCES**

Aquatic life is dependent on the level of dissolved oxygen (DO) in water. When organic matter is consumed by microorganisms, DO is consumed in the process. A rainfall event can deposit large quantities of oxygen-demanding substances in lakes and streams. The biochemical oxygen demand of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A DO problem arises when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by the direct measure of DO and indirect measures such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and total organic carbon (TOC).

**BACTERIA**

Bacteria levels in undiluted urban runoff usually exceed public health standards for recreational water contact. Studies have found that total coliform counts exceeded EPA water quality criteria at almost every site and almost every time it rained. The coliform bacteria that are detected may not be a health risk in themselves, but are often associated with human pathogens.

**OIL AND GREASE**

Oil and grease contain a wide variety of hydrocarbons some of which could be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become attached to it. The major source of hydrocarbons in urban runoff is through leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbons export, although illegal disposal of waste oil into stormwater can be a local problem.

**OTHER TOXIC CHEMICALS**

Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in stormwater. Priority pollutant scans have been conducted in previous studies of urban runoff, which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in stormwater include - 1) phthalate (plasticizer compound); 2) phenols and creosols (wood preservatives); 3) pesticides and herbicides; 4) oils and greases; and 5) metals.
Physical Characteristics of Surface Water Quality

Standard parameters, which can assess the quality of stormwater, provide a method of measuring impairment. A background of these typical characteristics assists in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface runoff. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, a high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as a fertilizer, is a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or ground water.

The physical properties and chemical constituents of water have traditionally served as the means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for stormwater make up a long list and are classified in many ways. In many cases, the concentration of an urban pollutant, rather than the annual load of that pollutant, is needed to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of the surface runoff are outlined below:

DISSOLVED OXYGEN (DO)

DO in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The DO concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. Dissolved oxygen is a transient property that can fluctuate rapidly in time and space. Dissolved oxygen represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process and the resulting changes in oxygen status respond slowly also. The oxygen demand is an indication of the pollutant load and includes measurements of Biochemical Oxygen Demand (BOD) or Chemical Oxygen Demand (COD).

BIOCHEMICAL OXYGEN DEMAND (BOD)

The BOD is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20 degrees Celsius, after which the residual DO is measured. The BOD value commonly referenced is the standard five-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

CHEMICAL OXYGEN DEMAND (COD)

The COD is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.
TOTAL DISSOLVED SOLIDS (TDS)

TDS concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS are an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influence the ability of a water body to assimilate wastes.

pH

The pH of water is the negative log, base 10, of the hydrogen ion (H+) activity. A pH of seven is neutral; a pH greater than seven indicates alkaline water; a pH less than seven represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by plants. The pH of water directly affects fish and other aquatic life and generally toxic limits are pH values less than 4.8 and greater than 9.2.

ALKALINITY

Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 mg/l and ranges of alkalinity of 100-200mg/l seem to support well-diversified aquatic life.

SPECIFIC CONDUCTANCE

The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long-term monitoring of a project’s waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2,000 micro-ohms per centimeter (μohms/cm) indicate a TDS level too high for most freshwater fish.

TURBIDITY

The clarity of water is an important indicator of water quality that relates to the ability of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended clays and other organic particles. It can be used as an indicator of certain water quality constituents such as predicting the sediment concentrations.

NITROGEN (N)

Sources of nitrogen in stormwater are from the additions of organic matter or chemical additions to water bodies. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes DO in the water. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to
nitrate-nitrogen (N/N), a form available for plants. High concentrations of N/N in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of N/N is needed for algal blooms. Some fish life can be affected when N/N exceeds 4.2 mg/l. There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia); ammonia; nitrite plus nitrate; nitrite; and, nitrogen in plants. The principal water quality criterion for nitrogen focuses on nitrate and ammonia.

PHOSPHORUS (P)

Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban stormwater discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. The primary methods of measurement include detecting orthophosphate and total phosphorus.

EXISTING STORMWATER RUNOFF

The City of Palmdale site lacks any measured data on stormwater runoff quality. In the absence of site-specific data, existing stormwater quality can be qualitatively discussed by relating typical pollutants to specific land uses. Existing development within the Expansion Area includes residential, commercial, industrial, institutional, schools, and public facilities uses, as well as vacant land. These residential and non-residential land uses have long-term effects on runoff. The potential for negative water quality effects is generally correlated to the density of development and the amount of impervious area associated with the development.

Residential Activities and Development

Detached residential development has the potential to generate sediments such as nutrients and organic substances (including fertilizers), pesticides (from landscape application), trash and debris (including household hazardous waste), oxygen demand, oil and grease (from driveways and roads), and bacteria and viruses.

Municipal Activities and Development

Infrastructure and facilities (roads, streets, highways, parking facilities, storm drains, and flood management facilities) present a threat to water quality. Other facilities such as parks, airfields, water treatment plants, wastewater reclamation plants, landfills and transfer centers, and corporate yards also present water quality issues. Municipalities may also own and administer areas and activities tributary to impaired water bodies and/or water quality sensitive areas that might be harmful to water quality.
Commercial, Civic, and Industrial Activities and Development

Certain commercial activities have the potential to generate pollutants that can negatively affect stormwater quality. Auto repair shops in particular have the potential to generate heavy metals, oils, toxic chemicals and other oxygen-demanding substances. In addition, restaurants have the potential to generate pollutants such as grease, trash, and other oxygen-demanding substances.

Industrial activities can significantly affect water quality, depending on the type of pollutants and activity. In general, industrial activity is associated with effects on ambient water temperature, alkalinity levels of total suspended solids and oxygen demand. Certain industrial uses may entail the generation of heavy metals, nutrients, toxic chemicals, and other pollutants. Industrial uses that take place indoors do not have stormwater pollutant exposure and present little threat to stormwater quality.

Vacant Lands

An estimated 1,272 acres of the proposed Expansion Area are comprised of unimproved vacant lands, which are likely to produce suspended solids. In addition, these vacant areas do not currently contain any structural Best Management Practices (BMP), which would potentially decrease the amount of pollutants in stormwater runoff. It is likely that portions of potential pollutants are removed through the use of natural conveyance rather than a storm drain. Conveying flows overland through vegetation affords some infiltration and biofiltration of runoff and thus, potential pollutant removal. A draw back to conveying flows overland is that it increases erosion problems and thus increases suspended solids in the runoff.

Receiving Waters

The project area’s primary receiving waters are Anaverde Creek. Anaverde Creek converges with Armargosa Creek. Neither Anaverde Creek nor Armargosa Creek are listed on the Clean Water Act Section 303(d) list.

GROUNDWATER

Groundwater System

An alluvial fan is a very common desert landform built as flood waters transport sand and gravel from the mountains to lower elevations. Water infiltrates the Antelope Valley alluvial fans, percolating to lower sand levels that serve as aquifers. Sand can hold an abundant amount of groundwater, given its high porosity and permeability. Groundwater moves freely through these course settlements.

The Antelope Valley Groundwater Basin consists of two primary aquifers: the upper (principal) aquifer; and the lower (deep) aquifer. These aquifers are separated vertically by lacustrine deposits\(^1\) and horizontally by fault zones; refer to GPEIR Exhibit 3-13 (Aquifers and Groundwater Surface). The principal aquifer is an unconfined aquifer, while the deep aquifer is

\(^1\) Lacustrine deposits are comprised of silts and clays deposited when an inland lake covered the valley.
generally considered to be confined. In general, the principal aquifer is thickest in the southern portion of the Antelope Valley Region near the San Gabriel Mountains and the deep aquifer is thickest in the vicinity of the dry lakes on Edwards AFB. The principal aquifer overlies the lacustrine deposits and supplies all water pumped from wells in the Antelope Valley. The deep aquifer underlies the deposits. Water moves downward from the principal aquifer to the deep aquifer on the western and southern limits of the lacustrine deposits. Upward movement from the deep aquifer to the principal aquifer occurs in areas of extensive pumping of groundwater.

The Antelope Valley Groundwater Basin is divided into seven subbasins, as illustrated on GPEIR Exhibit 3-14 (Antelope Valley Groundwater Basin). The proposed Expansion Area is located in the Lancaster Subbasin, which is the largest of the seven subbasins. This sub-unit contains the greatest number of water wells and supplies the majority of groundwater to the Palmdale area. Groundwater movement is generally northeasterly from the foothills of the San Gabriel and Sierra Pelona Mountains towards the Rosamond and Rodgers Dry Lakes. Distorted movement occurs due to pumping depressions found at Plant 42, among others.

**Groundwater Storage Capacity and Recharge**

The total storage capacity of the Antelope Valley Groundwater Basin has been reported at between 68 and 70 million acre feet (MAF). The Antelope Valley is not part of the larger Los Angeles County recharge area. The surrounding mountains funnel water towards the Valley floor, thus providing the Valley with a self-contained water cycle. The total recharge is the quantity of water that goes back to the underground basin or water source. Natural recharge of groundwater in the area is through the percolation of surface water. The percolation of storm runoff in the alluvial fans of the Amargosa and Anaverde Creeks, and Big Rock and Little Rock Washes provides recharge to the Lancaster sub-basin. Recharge rates in the area are subject to the fluctuation of winter rains.

The proposed Expansion Area is primarily located within the Palmdale Water District (PWD). A small portion of the Expansion Area is located within Los Angeles County Waterworks District 40-34 and Crestmore Village Water Company. PWD receives water from Littlerock Creek Dam and Reservoir, the State Water Project (SWP) and groundwater. LACWWD 40 receives water from the SWP, purchased through the Antelope Valley East Kern Water Agency (AVEK), and local groundwater.

AVEK and PWD are two major water purveyors extracting groundwater from the Antelope Valley Basin. The Antelope Valley Basin is not adjudicated, thus, is not governed by a watermaster and there is no water management plan. Therefore, there are no restrictions on groundwater extractions within the Basin. The U.S. Geological Survey reports that groundwater extractions have exceeded the estimated natural recharge of the basin since the 1920’s. This overdrafting or pumping has caused water levels to decline in excess of the recharge. Groundwater recharge through the ground seepage of rainwater is limited to an average of nine

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4 Ibid.
inches of annual rainfall. With evaporation, the actual amount of water that reaches the basins by percolation is further reduced.

Groundwater wells serve 80 percent of Palmdale’s water needs and the California Aqueduct provides the remaining 20 percent. The continued reliance on groundwater to meet current and increasing demands for water due to urbanization in the Valley has lowered the groundwater table. To counteract overdrafting, the Los Angeles County Department of Public Works has established regional recharge programs.

5.8.3 REGULATORY FRAMEWORK

Applicable Federal, State, and local regulatory policies and law that apply to hydrology, drainage, and water quality are discussed below. Surface water quality is subject to Federal, State, and local water quality requirements administered and enforced by the U.S. Environmental Protection Agency (U.S. EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Boards (RWQCBs) with cooperation from each county.

CLEAN WATER ACT

The principal law governing pollution of the nation’s surface waters is the Clean Water Act (CWA), formerly known as the Federal Water Pollution Control Act (FWPCA). Originally enacted in 1948, it has been amended several times since. As amended in 1977, the law became commonly known as the CWA. The CWA is a Federal law that protects the nation’s surface waters, including lakes, rivers, coastal wetlands, and “waters of the United States.” The CWA includes provisions that authorize Federal financial assistance for municipal sewage treatment plants and the regulatory requirements that apply to industrial and municipal dischargers. The law authorized states to set effluent standards on an industry basis. In addition, the CWA requires states to adopt water quality standards that “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.”

The CWA specifies that discharges to waters are illegal, unless authorized by an appropriate permit. The permits regulate the discharge of dredged and fill materials, construction-related stormwater discharges, and activities that may result in discharges of pollutants to “waters of the U.S.” Section 404 of the CWA establishes a permit program for the discharge of dredge or fill materials into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE). If waters of the U.S. are located on or downstream of a project site, the project may discharge to them, and if impacts on them are anticipated, the project must obtain a CWA Section 401 Water Quality Certification from the appropriate RWQCB. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. This permitting program is administered by the RWQCBs. In addition, Section 303 and 304 of the CWA provide for water quality standards, criteria, and guidelines.
PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act functions in cooperation with the CWA to establish the State Water Resources Control Board (SWRCB). The SWRCB and nine Regional Water Quality Control Boards (RWQCB), overseen by the SWRCB, are responsible for protecting California’s surface and groundwater supplies. The Porter-Cologne Water Quality Control Act establishes Basin Plans for each of the nine regions overseen by the RWQCB that designate the beneficial uses of California’s rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

Impaired Waterbodies

The CWA Section 303(d) and the California’s Porter-Cologne Water Quality Control Act require the State to establish the beneficial uses of its State waters and to adopt water quality standards to protect those beneficial uses. Section 303(d) establishes a Total Maximum Daily Load (TMDL) program, which sets the maximum quantity of a particular contaminant that a water body can maintain without experiencing adverse effects, to guide the application of State and regional water quality standards. Section 303(d) also requires the State to identify “impaired” streams (water bodies affected by the presence of pollutants or contaminants) and to establish the TMDL of each pollutant for each identified stream.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit. However, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Construction Stormwater NPDES

The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCBs conduct planning, permitting and enforcement activities. While the U.S. EPA allows two permitting options to meet NPDES requirements (individual permits and general permits), the SWRCB has elected to adopt one statewide permit. In 2009, the SWRCB adopted the new Construction General Permit, Order No. 2009-0009-DWQ (CGP). The new CGP replaces Order No. 99-08-DWQ, effective July 1, 2010. The permit incorporates several concepts new to construction stormwater permits which were designed to provide increased water quality protection. The CGP requires that construction sites with 1.0 acre or greater of soil disturbance or less than 1.0 acre, but part of a greater common plan of development, apply for coverage for discharges under the CGP by submitting a Notice of Intent (NOI) for coverage, developing a Stormwater Pollution Prevention Plan.
(SWPPP), and implementing Best Management Practices (BMPs) to address construction site pollutants. The new Construction General Permit took effect July 1, 2010.

**Stormwater Pollution Prevention Plan.** The SWPPP is directed toward construction staff and describes the erosion and runoff control measures to be used during and after construction, and provides a plan to inspect and maintain these control measures. The SWPPP may be revised during construction in response to changed conditions, or if the properly installed BMPs are ineffective in preventing sediment transport off the site. Revisions to the SWPPP are also required if there are changes in activities which could result in a significant amount of pollutants discharged in stormwater.

**Notice of Intent.** The NOI certifies that the applicant will comply with conditions in the statewide general NPDES permit. It is not a permit application and does not require approval, although an annual fee must be submitted with the NOI.

**Notice of Termination.** The State Board must be notified (via a Notice of Termination form) once construction is complete. It must also be notified if a change of ownership occurs during construction. In this case, a revised NOI must be submitted, and the SWPPP must be revised by the new owner to reflect any changes in construction conditions.

The CGP requires that the project owner arrange for maintenance of drainage/stormwater control facilities after project completion; maintenance may be done by private parties or by a public agency such as a community service district. Municipalities may require maintenance agreements. Construction project proponents may request to be placed under individual NPDES permits rather than the general permit. The Regional Board may issue individual stormwater NPDES permits to construction projects when more stringent controls are necessary to protect water quality. Individual construction projects may also be regulated under a municipality’s NPDES management program.

**Municipal Stormwater Permit**

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). MS4 permits were issued in two phases: Under Phase I, for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities, and Phase II, for smaller municipalities.

Enacted in 1990, Phase I of the Stormwater Rule applied to municipal separate storm sewer systems (MS4s) with a service population of 100,000 or more, to construction projects affecting 5.0 acres or more of land disturbance, and to certain industrial activities. Under Phase I, the RWQCB have adopted NPDES stormwater permits for medium and large municipalities, most of which are issued to a group of co-permittees encompassing an entire metropolitan area. The MS4 permits require the discharger to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants.

Under the NPDES Phase II Rule and the MS4 General Permit, Small MS4s that meet specific criteria must obtain MS4 General Permit coverage for stormwater discharges. Palmdale is under the jurisdiction of the Lahontan RWQCB. The Lahontan RWQCB issues MS4 General Permit coverage for a large region, which includes areas from the Lake Tahoe Basin to Palmdale. In 2003, the City of Palmdale submitted an application and Stormwater Management
Program (SWMP) to the RWQCB to receive coverage under the General Permit. The RWQCB notified the City that the RWQCB does not intend to regulate the City of Palmdale under the General Permit. Specifically, the USACE completed a Non-Jurisdictional Determination for the Amargosa Creek watershed in June 2004. Based on the findings, the RWQCB has found that stormwater discharges within the Amargosa Creek watershed generated by Palmdale are not subject to the General Permit because they do not constitute discharges to waters of the United States.5

NATIONAL FLOOD INSURANCE ACT

With the passage of the National Flood Insurance Act of 1968, the U.S. Congress established the National Flood Insurance Program (NFIP), enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

The Flood Disaster Protection Act of 1973 prohibits federal agencies from providing financial assistance for acquisition or construction of buildings and certain disaster assistance in the floodplains in any community that did not participate in the NFIP by July 1, 1975, or within one year of being identified as flood-prone. This law required federal agencies and federally insured or regulated lenders to require flood insurance on all grants and loans for acquisition or construction of buildings in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP. This requirement is referred to as the Mandatory Flood Insurance Purchase Requirement. The SFHA is that land within the floodplain of a community subject to a one-percent or greater chance of flooding in any given year, commonly referred to as the 100-year flood.

In 1994, Congress amended the 1968 Act and the 1973 Act with the National Flood Insurance Reform Act (NFIRA). The 1994 Act included measures to:

1. Increase compliance by mortgage lenders;
2. Increase the amount of flood insurance coverage that can be purchased;
3. Provide flood insurance coverage for the cost of complying with floodplain management regulations by individual property owners;
4. Establish a Flood Mitigation Assistance grant program to assist States and communities to develop mitigation plans and implement measures to reduce future flood damages to structures;
5. CODIFY the NFIP’s Community Rating System; and
6. Require FEMA to assess its flood hazard map inventory at least once every five years.

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5 Harold J. Singer, Executive Officer, California Regional Water Quality Control Board Lahontan Region, January 18, 2005.
Federal Emergency Management Agency

On March 1, 2003, the Federal Emergency Management Agency (FEMA) became part of the U.S. Department of Homeland Security (DHS). FEMA’s primary mission is to reduce the loss of life and property and protect the Nation from all hazards, including flooding, among others. FEMA is responsible for administering the NFIP, which enables property owners in participating communities to purchase flood insurance; refer to the National Flood Insurance Program discussion above.

Flood is a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties. The term “100-year flood” is defined by FEMA, as the flood elevation that has a one percent chance of being equaled or exceeded each year. A “500-year flood” is one that has a 0.2 percent chance of occurring each year. A 500-year flood event would be slightly deeper and cover a greater area than a 100-year flood event.

Flood zones are geographic areas that FEMA defines, based on studies of flood risk. The zone boundaries are shown on flood hazard maps, also called Flood Insurance Rate Maps (FIRM). Flood hazard areas identified on the FIRM are identified as a Special Flood Hazard Area (SFHA). The SFHA is that land within the floodplain of a community subject to a one-percent or greater chance of flooding in any given year, commonly referred to as the 100-year flood. The one-percent-annual-chance flood (also referred to as the base flood or 100-year flood) represents a magnitude and frequency that has a statistical probability of being equaled or exceeded in any given year, the 100-year flood has a 26-percent (or one in four) chance of occurring over a 30-year period.

SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/O, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. These are high-risk flood areas where special flood, mudflow, or flood-related erosion hazards exist and flood insurance is mandatory. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. Low-to-Moderate Risk Zones or Non-Special Flood Hazard Areas (Zones B, C, X) are areas that are not in any immediate danger from flooding caused by overflowing rivers or hard rains. Insurance purchase is not required in these zones. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded). Exhibit 5.8-1, FEMA FIRM Map, illustrates those portions of the proposed Expansion Area that are located within a SFHA, based on the FIRM (Panels 06037C0420F, 06037C0657F, 06037C0659F, 06037C0450F, and 06037C0700F).

CITY OF PALMDALE GENERAL PLAN

According to the General Plan Safety Element, it is the City’s goal to “minimize danger and damage to public health, safety, and welfare resulting from natural hazards” (Goal S1). To this end, it is the City’s objective to minimize hazards associated with flood plains in the area (Objective S1.2). The Safety Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.
ENVIRONMENTAL IMPACT REPORT
EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

FEMA FIRM Map
Exhibit 5.8-1
Goal 1 of the General Plan Public Services Element is to “ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.” To this end, it is the City’s objective to:

Objective PS1.2: Ensure that new development is coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost efficient construction and maintenance, and ease of access to facilities.

Objective PS1.3: Utilize land use strategies to maximize use of infrastructure facilities.

Objective PS1.4: Develop and implement City programs to plan for, construct and maintain municipal facilities.

Objective PS1.5: Coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding.

The Public Services Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

CITY OF PALMDALE MUNICIPAL CODE

Section 8.04.265 Chapter 70, Excavation and Grading

Palmdale Municipal Code (PMC) Section 8.04.265 Chapter 70, Excavation and Grading, was adopted as the excavation and grading provisions of the Palmdale Building Code. This chapter sets forth regulations for the control of excavation, grading, and earthwork construction, including fills or embankments, and for the control of grading site runoff, including erosion, sediments and construction related pollutants. These regulations establish the minimum standards.

Pursuant to PMC Section 7010, Stormwater Management Plan (Erosion Control), no grading permit shall be issued for work to be commenced between October 1 of any year and April 15 of the following calendar year, unless the plans for such work include a stormwater management plan with details of protective measures, as may be necessary to protect adjoining property from damage by erosion, flooding, or the deposition of mud, debris, or construction-related pollutants, which may originate from the site or result from such grading operation.

According to PMC Section 7013, Responsibility, the permittee or the permittee’s agent shall carry out the proposed work in accordance with the approved plans and specifications and in compliance with all the requirements of this code. The permittee is required to put into effect and maintain all mitigation measures required under the National Pollution Discharge Elimination System (NPDES) permit issued to the City of Palmdale (PMC Section 7013.6, Storm Water Control Measures). Such measures are precautionary measures necessary to protect adjacent watercourses and public or private property from damage by erosion, flooding and deposition of mud, debris, and construction-related pollutants. The permittee is also required to
maintain the site in such a manner as to minimize the impacts of storm water and construction-related pollutants due to the grading and related construction activities on adjacent public and private property and drainage courses. The required best management practices (BMPs) shall include, but not be limited to, those identified in this section (PMC Section 7013.8, Best Management Practices).

PMC Section 7018, Drainage, specifies that drainage structures and devices required by Chapter 70 shall conform to the provisions of this section as well as recognized principles of hydraulics. Drainage facilities are required to be designed to carry surface waters to the nearest practical street, storm drain, or natural watercourse approved by the City Engineer or other appropriate governmental agency as a safe place to deposit such waters. Desilting basins, filter barriers, or other methods, as approved by the City Engineer, are required, in order to remove sediments from surface waters before such waters are allowed to enter streets, storm drains, or natural watercourses.

**Chapter 15.28, Floodplain Management**

Chapter 15.28, Floodplain Management, applies to all areas of special flood hazards within the City’s jurisdiction, pursuant to the Flood Insurance Study (FIS) for the City of Palmdale (March 30, 1998) and accompanying FIRM (March 30, 1998), and all subsequent amendments and/or revisions (which are on file in the office of the City Engineer). Pursuant to PMC Section 15.28.040, Compliance, no structure or land shall be constructed, located, extended, converted, or altered without full compliance with the terms of Chapter 15.28 and other applicable regulations. A development permit would be required prior to construction or development within any area of special flood hazards (PMC Section 15.28.090, Establishment of Development Permit). PMC Sections 15.28.120, 15.28.130, 15.28.140, 15.28.150, and 15.28.155 outline the standards are required to be met in all areas of special flood hazards.

**Section 86.01, Landscaping Requirements**

Pursuant to Palmdale Zoning Ordinance (PZO) Section 86.01, Landscaping Requirements, in all projects proposed or required to provide landscaping as part of the development plan, the landscaping shall be provided in accordance with the following provisions, among others:

B. All landscaping shall conform at all times to provisions of Section 14.05 (Landscape Water Conservation) of the City of Palmdale Municipal Code. In addition, landscape area design shall be based upon the principles of water conservation; grouping of plant materials based upon similar water requirements, ecological requirements, climatic conditions, and selection of drought tolerant plant materials.

C. Landscape areas shall be provided with a permanent, fixed automatic irrigation system adequate to meet the water needs of all landscape material. Irrigation systems shall be designed to minimize maintenance and water consumption, and the irrigation systems shall be properly designed and installed to ensure that overspray onto fences, walls and structures is eliminated to the maximum extent feasible.

H. Graded, undeveloped portions of project sites proposed for future expansion shall be kept in a weed free condition and appropriate ground cover may be required for erosion
control. Graded pad sites may require temporary seeding and irrigation for erosion control and to mitigate visual impacts.

5.8.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to hydrology and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in a significant increase in runoff of storm or nuisance water toward the aqueduct; refer to Section 8.0, Effects Found Not to be Significant;

- Be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools; refer to Section 8.0, Effects Found Not to be Significant;

- Located above Lake Palmdale where urban runoff could significantly impact the lake; refer to Section 8.0, Effects Found Not to be Significant;

- Located in an inundation area below Lake Palmdale dams, or Littlerock dam; refer to Section 8.0, Effects Found Not to be Significant;

- In an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments;

- Result in a significant increase in peak runoff that could increase flood hazard off-site;

- Impede the implementation of the City’s Master Plan of Drainage or Drainage Management Plan; refer to Section 8.0, Effects Found Not to be Significant;

- Result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity;

- Result in the significant alteration of the direction or rate of flow of groundwater; refer to Section 8.0, Effects Found Not to be Significant;

- Result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations; and/or

- Result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities.
Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

### 5.8.5 IMPACTS AND MITIGATION MEASURES

#### SHORT-TERM SURFACE WATER QUALITY

**Thresholds:**

- Would the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?
- Would the project result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities?

**Impact Analysis:** The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Development and redevelopment activities impact water quality by creating sources of erosion and sedimentation during the construction phase. Construction controls are separated from other water quality management, because the measures are temporary and specific to the type of construction. Construction of the anticipated developments and improvements has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers and sanitary wastes, fuel, and lubricants. Generally, standard safety precautions for handling and storing construction materials can adequately reduce the potential pollution of stormwater by these materials. These types of standard procedures can be extended to non-hazardous stormwater pollutants such as sawdust, concrete washout, and other wastes. Additionally, grading activities can greatly increase erosion processes, leading to impacts on storm drains and sediment loading to storm runoff flows.

Two general strategies would be implemented to prevent soil materials from entering local storm drains. First, erosion control procedures would be implemented for those areas that must be exposed, and secondly, any development site would be secured to control off-site transport of pollutants. Implementation of these avoidance strategies would occur through compliance with
the NPDES requirements outlined above and PMC Section 8.04.265 Chapter 70, *Excavation and Grading*.

Construction activities resulting from project implementation would be required to comply with the NPDES permit program, which controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Dischargers whose projects disturb 1.0 or more acres of soil or whose projects disturb less than 1.0 acre but are part of a larger common plan of development that in total disturbs 1.0 or more acres, would be required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, Order No. 2009-0009-DWQ (CGP)). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation.

The CGP requirements must be satisfied prior to beginning construction. Moreover, as specified in PMC Section 7013.6, *Storm Water Control Measures*, the permittee is required to put into effect and maintain all mitigation measures required under the NPDES permit issued to the City of Palmdale. Such measures are precautionary measures necessary to protect adjacent watercourses and public or private property from damage by erosion, flooding and deposition of mud, debris, and construction-related pollutants. The permittee is also required to maintain the site in such a manner as to minimize the impacts of storm water and construction-related pollutants due to the grading and related construction activities on adjacent public and private property and drainage courses. The required best management practices (BMPs) shall include, but not be limited to, those identified in this section (PMC Section 7013.8, *Best Management Practices*).

Prior to issuance of any Grading or Building Permit, and as part of the future development’s compliance with the NPDES requirements, a Notice of Intent would be prepared and submitted to the Lahontan RWQCB providing notification and intent to comply with the State of California CGP. Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) would be required for the construction activities onsite. The SWPPP would be submitted for approval to the Director of Public Works and the City Engineer for water quality construction activities onsite. Section A of the Construction General Permit describes the elements that must be included in a SWPPP. It must contain a site map(s), which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the proposed development site. The SWPPP must list BMPs the discharger would use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain the following:

- A visual monitoring program;
- A chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and
- A sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP would outline the source control and/or treatment control BMPs that would avoid or mitigate runoff pollutants at the construction site to the “maximum extent practicable.” A copy of the SWPPP must be available and implemented at the construction site at all times.
Additionally, construction activities within the proposed Expansion Area would be subject to compliance with PMC Section 8.04.265 Chapter 70, *Excavation and Grading*, which sets forth regulations (i.e., minimum standards) for the control of excavation, grading, and earthwork construction, and for the control of grading site runoff, including erosion, sediments and construction related pollutants. These regulations also restrict grading activities (PMC Section 7010, *Stormwater Management Plan (Erosion Control)*). Compliance with PZO Section 86.01, *Landscaping Requirements*, and the City of Palmdale Engineering Department Design Standards, Section VI: Landscaping and Irrigation, which addresses the provision of ground cover and/or temporary seeding for erosion control, would be required for all projects proposed or required to provide landscaping, as part of the development plan. Additionally, future development would be subject to compliance with GPEIR Policy ER5.2.3, which addresses the provision of erosion control measures on new development. Future development projects within the Expansion Area would be subject to compliance with Federal, State, and local water quality regulations involving erosion control measures, which would reduce short-term impacts to water quality to less than significant.

### Mitigation Programs:

**GPEIR Mitigation Measures and Policies:**

Policy ER5.2.3: Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### LONG-TERM SURFACE WATER QUALITY

#### Thresholds:

*Would the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?*

*Would the project result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities?*

**Impact Analysis:** Development associated with buildout of the proposed Expansion Area, in accordance with the General Plan would have long-term effects on runoff once the development is complete. Urban development can affect water quality in three ways:

- Impervious surfaces associated with development increase the rate and volume of stormwater runoff, therefore increasing downstream erosion potential;
• Urban activities generate dry-weather or “nuisance” flows, which may contain pollutants and/or may change the ephemeral nature of streams and the degradation of certain habitats; and

• Impervious surfaces increase the concentration of pollutants during wet weather flows.

The potential for negative water quality effects is generally correlated to the density/intensity of development and the amount of impervious area associated with development. Detached residential development has the potential to generate sediments such as nutrients and organic substances (including fertilizers), pesticides (from landscape application), trash and debris (including household hazardous waste), oxygen demand, oil and grease (from driveways and roads) and bacteria and viruses. Attached residential developments share these potentialities as well as an increased potential for concentration of pollutants from the larger parking lots typically associated with multiple family development projects. In addition to the water quality impacts associated with residential development, non-residential developments have the potential to generate oil and grease from loading and unloading areas, vehicle and equipment washing, and parking areas, as well as grease, trash, and other oxygen-demanding substances associated with restaurant uses. Industrial uses can affect water quality from the generation of heavy metals, nutrients, toxic chemicals, and other pollutants. These impacts would be considered potentially significant unless mitigated.

Future development within the Expansion Area in accordance with the General Plan would increase impervious surfaces and overall levels of activity. As a result, impacts to stormwater quality would occur. Future development would increase pollutant loadings immediately off the respective development sites and would potentially violate water quality standards. The pollutants that would be expected with future development include pollutants typically found in stormwater runoff; refer to the Existing Setting Section above. Without mitigation, future development would be expected to increase pollutant loadings, including hydrocarbons, fertilizers, pesticides, trash, and sediment.

All future development would be subject to compliance with NPDES and PMC requirements. Prior to issuance of any Grading Permit, all future development would be required to prepare, to the satisfaction of the Director of Public Works and the City Engineer, a WQMP, which includes BMPs, Structural Measures, and Adaptive Management, under the guidelines in Development Planning for Stormwater Management - A Manual for the SUSMP.

Additionally, all future development would be subject to compliance with PMC Section 8.04.265 Chapter 70. The permittee (i.e., Applicant) would be required to carry out the proposed work in accordance with the approved plans and specifications and in compliance with all the requirements of the PMC (PMC Section 7013, Responsibility). The permittee is also required to put into effect and maintain all mitigation measures required under the NPDES permit issued to the City of Palmdale (PMC Section 7013.6, Storm Water Control Measures). Compliance with such measures would protect adjacent watercourses and property from damage by erosion, flooding and deposition of mud, and debris. The required BMPs would include those identified in Section 7013, among others. PMC Section 7018, Drainage, specifies that desilting basins, filter barriers, or other methods, as approved by the City Engineer, are required, in order to remove sediments from surface waters before such waters are allowed to enter streets, storm drains, or natural watercourses (PMC Section 7018, Drainage). Installation of multi-purpose detention basins or similar structural BMPs would achieve water quality enhancement through
filtration and sedimentation. Stormwater management could also include smaller source controls within an individual development, whose main purpose is to decrease initial water runoff volumes and minimize pollutants. Through implementation at respective development sites, these measures would be effective at reducing runoff quality constituent concentrations in downstream receiving waters, as well as total pollutant loads per storm. Future developments would also be subject to compliance with the GPEIR Policies outlined below, which require implementation of erosion control measures. Compliance with NPDES and PMC Section 8.04.265 Chapter 70 requirements, as well as GPEIR Policies, would reduce post construction impacts to water quality to a less than significant level.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy CD8.4.4: Landscaping shall be provided for erosion control where appropriate, as required in the City’s Engineering Design Standards.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**FLOOD HAZARDS**

**Threshold:** Would the project be located in an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments?

**Impact Analysis:** As illustrated on Exhibit 5.8-1, FEMA FIRM Map, portions of the proposed Expansion Area are located within SFHAs subject to inundation by the one percent annual chance flood. Within the project area, floodplains are associated with the Anaverde Creek drainage. Although site-specific development is not currently proposed, future development within the proposed Expansion Area in accordance with the General Plan may occur within SFHAs. The floodplains can pose a threat to life and property by the possibility of intermittent floods.

All future development within the Expansion Area’s SFHAs would be required to comply with the Federal and State regulations, including the National Flood Insurance Program, Flood Disaster Protection Act of 1973, and National Flood Insurance Reform Act, among others. Where development in flood hazard areas is unavoidable, the project or activity would be designed or modified so as to minimize the potential adverse impacts affecting floodplains and implement measures, which would mitigate or reduce the risk of flood loss. Mitigation would be required to protect life, property, and the natural and beneficial values of the floodplain.

Implementation of the City’s Drainage Master Plan is expected to mitigate potential flooding impacts within the project area. The City’s Master Plan of Drainage and Drainage Management Plan provide a framework for constructing flood control structures throughout the City.
Implementation of these plans is on-going. Additionally, all future development would be subject to compliance with PMC Chapter 15.28, *Floodplain Management*, which specifies that no structure or land shall be constructed, located, extended, converted, or altered without full compliance with the terms of Chapter 15.28 and other applicable regulations. Future development within any area of special flood hazard would require a Development Permit and its design would be pursuant to specific standards for construction, utilities, and subdivisions, among others.

It is the City’s goal (Goal PS3) to develop and maintain adequate storm drainage and flood control facilities. To this end, the city intends to minimize hazards associated with flood plains (Objective S1.2). Compliance with the GPEIR Policies outlined below, which address floodplain management in furtherance of this goal/objective, would be required.

Compliance with Federal and State standards, the City’s Master Plan of Drainage, PMC regulations, and GPEIR Policies would reduce potential impacts involving flood hazards to a less than significant level.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Policy S1.2.1:** Require that new development should not be exposed to flood hazards or contribute to an existing flood hazard, in accordance with the City’s Floodplain Management Ordinance and related criteria within the City’s Engineering Design Standards.

**Policy S1.2.2:** Require that building foundations be a minimum of one (1) foot above the 100-year flood elevation, unless alternative diversion methods are approved by the City Engineer.

**Policy S1.2.3:** Require that grading of floodways shall be in a manner which allows for groundwater recharge and protection of projects from flooding.

**Policy S1.2.4:** All required primary and secondary access and egress routes for all new development should be “dry” access located outside of the 100-year flood plain.

**Policy S1.2.5:** Consider the operability of natural gas, electric, water and sewer services during the occurrence of flooding in review of project design.

**Policy S1.2.8:** Ensure that new development complies with floodplain zoning and watershed management regulations.

**Policy S1.2.9:** Preserve and restore the natural and beneficial values served by floodplains to the extent feasible, consistent with public health, safety and welfare.

**Policy S1.2.10:** Promote open space and recreational uses in designated flood zones, unless mitigation of the hazard can allow other types of development.
**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### LOCALIZED FLOODING

**Threshold:** Would the project result in a significant increase in peak runoff that could increase flood hazard off-site?

**Impact Analysis:** Project implementation would result in development/redevelopment activities that would occur on vacant and/or underutilized land. Localized alterations to the existing drainage patterns of the development sites could occur due to project-related grading and increases in the amount of impermeable surfaces on the respective development sites from structures (i.e., residential and non-residential uses) and other improvements (i.e., parking lots, driveways, walkways, etc.). Increases in impervious surface areas decrease the rate at which runoff percolates into the ground, thus increasing storm runoff to low-lying areas, potentially creating localized flooding. Storm runoff would be augmented by nuisance water flows from development, further contributing to street flooding.

As a flood control measure, all individual development projects within the Expansion Area would be required to provide flood control facilities within their projects to mitigate the impacts of storm runoff. All future development would be required to incorporate adequate drainage that would transport runoff to local catch basins and nearby storm channels. PMC Section 7018, *Drainage*, specifies that drainage facilities are required to be designed to carry surface waters to the nearest practical street, storm drain, or natural watercourse approved by the City Engineer or other appropriate governmental agency as a safe place to deposit such waters.

The City has adopted a Master Drainage Plan, which establishes a consistent policy and program for handling stormwater runoff in developed areas. The Master Plan recommends that detailed hydrologic and hydraulic studies be performed on a project-by-project basis and utilized in the design of the drainage facilities. All development within the Expansion Area (and throughout the City) must comply with the Master Drainage Plan, which provides guidelines for handling nuisance water from developments before storm drain facilities are constructed, in addition to a program for mitigation of regional drainage impacts. The City generally implements the Master Drainage Plan through its capital improvement program. If a private developer dedicates and constructs facilities depicted on the Master Plan, then the City may also reimburse the developer for all or a portion of the cost of the facility, depending on the individual circumstances. Funding for construction of Master Drainage Plan facilities is provided by a variety of sources as specified by the City’s Capital Improvements Program, including special assessment districts and drainage impact fees collected from new developments. Future development within the project area would be charged drainage impact fees, in order to pay for regional drainage improvements.

It is the City’s goal (Goal PS3) to develop and maintain adequate storm drainage and flood control facilities. To this end, the City maintains and implements the City’s adopted Master Drainage Plan (Objective PS3.1). It is also the City’s goal (Goal PS1) to ensure that adequate...
public services and facilities are available to support development in an efficient and orderly manner. To this end, the City would ensure that all new development in the project area provides for the infrastructure and public services needed to support it (Objective PS1.1). Accordingly, all future development within the project area would be subject to compliance with the GPEIR Policies outlined below, which would reduce potential drainage and street flooding impacts to less than significant.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy S1.2.6: Require that grading and other methods of water diversion be used to retard water runoff, where appropriate.

Policy S1.2.7: Ensure that storm water drainage is designed for peak flow conditions.

Policy S1.2.11: Implement the City’s Master Drainage Plan, through the development review process and capital improvement program.

Policy S1.2.12: Monitor and require continued maintenance of drainage basins throughout the City to ensure maximum flood protection from existing facilities and prevent downstream flood hazards.

Policy S1.2.13: Implement public financing programs where feasible, to provide for required drainage improvements, and coordinate design and construction of flood control improvements with adjacent jurisdictions where appropriate.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.1.5: When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire and other community facilities, prior to granting conditional approval of development applications.
Policy PS1.1.6: When reviewing applications for land use designation changes (i.e., zone change, General Plan Amendment, specific plan amendment), conduct a thorough analysis of the impacts of the proposed change on all elements of the City’s infrastructure systems, and require mitigation as deemed appropriate.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.6: Where feasible, require that consideration be given to sharing drainage facilities between adjacent subdivisions, with the cost shared on a "fair share" basis.

Policy PS1.2.7: Ensure that street rights-of-way, drainage facilities, site grading, or other similar public infrastructure are not aligned in a manner that increases the developability of a single property at the expense of an adjacent property, unless so required by regional infrastructure plans.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Policy PS1.3.3: Encourage development, which fully utilizes existing infrastructure systems, while decreasing the need for costly extensions of infrastructure into undeveloped areas.

Policy PS1.3.4: Encourage clustering of development where appropriate, to maximize use of infrastructure.
Policy PS1.3.5: Adopt comprehensive planning documents such as area plans, specific plans and development agreements, to specify the nature, timing and financing of public improvements and services.

Policy PS1.3.6: Encourage mixed use development, to maximize use of infrastructure system.

Policy PS1.4.1: Adopt and annually update the City’s Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with this General Plan.

Policy PS1.4.2: Adopt and implement service level standards for roads, drainage, and park facilities, through on-going monitoring of existing levels of service and through the CIP.

Policy PS1.4.3: Adopt, implement, and annually review user fee and impact fee programs, to support the cost of constructing capital facilities and providing services.

Policy PS1.4.4: Explore and implement a variety of public financing methods to fund infrastructure improvements, including assessment districts, Mello-Roos community facilities districts, redevelopment funds, block grant funds, and/or combinations of these and other available funding sources.

Policy PS1.4.7: Evaluate infrastructure facilities and service levels within developed areas which annex to the City, and promote programs to retrofit street, drainage, and sewer improvements where warranted.

Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.2: Inform adjacent cities, town councils and county agencies of City-initiated planning and public works projects which may impact their infrastructure systems, and consider their input and recommendations in the land use decision process.

Policy PS1.5.4: Participate in regional efforts to gain State or Federal funding for area-wide improvements.

Policy PS3.1.1: Continue the drainage impact fee program and periodically adjust fees as needed.

Policy PS3.1.2: Evaluate the impact of all new development and expansion of existing facilities on storm runoff and ensure that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development that generates it.
Policy PS3.1.3: Make use of interim local drainage detention basins to slow stormwater runoff, until such time as permanent drainage facilities are constructed.

Policy PS3.1.4: Through the development review process, reserve land from development in appropriate locations for construction of drainage facilities.

Policy PS3.1.5: Require and provide for on-going maintenance of drainage and detention facilities, to ensure their continued effectiveness in controlling runoff.

Policy PS3.2.3: Where feasible, combine drainage facilities with opportunities for recreation, as in placement of trails within drainage easements, or placement of ball fields within detention areas.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**GROUNDWATER**

**Threshold:** Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

**Impact Analysis:** The Expansion Area is located within the service boundaries of Palmdale Water District (PWD), Los Angeles County Waterworks District 40-34 (LACWWD 40-34) and Crestmore Village Water Company. The project area’s water needs are primarily served by groundwater wells; refer to Section 5.15, Water. Project implementation would not alter the quality of groundwater or change the quantity of groundwater through interception of an aquifer by cuts or excavations. However, project implementation would result in increased demand for water resources. Future development within the proposed Expansion Area in accordance with the General Plan would result in a net increase in water demand of 87.1 million gallons per day (mgd) over existing conditions; refer to Table 5.15-2, Expansion Area Water Demand. The increased water demand represents approximately 64 percent of the increase in water demand (135.93 mgd) associated with buildout of the GP Land Use Plan. This increased water demand is based upon projected development permitted by the Land Use Element and typical land use densities.

As concluded in Section 5.15, both PWD and AVEK anticipate water demand would exceed available supplies in the near future. With the reduced availability and reliability of the SWP water supply, reliance on groundwater to meet water demand would be greater. As stated, the groundwater basin is currently in overdraft; therefore, it cannot be determined whether adequate water supply would be available to serve future growth within the proposed Expansion Area. Development associated with project implementation could substantially deplete groundwater supplies, resulting in a significant unavoidable impact.
It is the City’s goal (Goal ER4) to protect the quality and quantity of local water resources. To this end, the City intends to ensure that groundwater supplies are recharged and remain free of contamination (Objective ER4.1) and minimize the impacts of urban development on groundwater supplies (Objective ER4.2). Additionally, the City maintains its commitment to long-term water management within the Antelope Valley by promoting and encouraging planning for the conservation and managed use of water resources, including groundwater, imported water, and reclaimed water (Objective ER4.3). Accordingly, all future development within the project area would be subject to the GPEIR policies outlined below, which would help to protect groundwater resources. Additionally, any future development project meeting SB 610 criteria would require a water supply assessment. Similarly, any project involving a subdivision pursuant to SB 221 would require verification of sufficient water supply from the water supplier. Compliance with this existing regulatory framework and the GPEIR Policies outlined below would reduce potential impacts. However, because the basin is currently in overdraft and groundwater resources would potentially be depleted beyond existing levels and SWP water allocations have been reduced and cannot be guaranteed, impacts to groundwater associated with future development within the proposed Expansion Area would be significant and unavoidable.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.

Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.

Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.

Policy ER4.2.4: Coordinate with local water agencies to monitor ground water levels, State water allocations and development approvals, to assure that development does not outpace long-term water availability. In the event applicable water agencies notify the City that ground water levels and State water allocations are insufficient to serve existing development or projected development, the City will determine whether it is appropriate to reevaluate this General Plan and take other appropriate actions, as permitted by law.
Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.2: Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for groundwater recharge within the Planning Area; through the land use planning process, ensure that important recharge areas are retained for that use.

Policy ER4.3.3: Continue to seek out long-range water management techniques as new technology is developed; promote implementation of systems which are feasible and appropriate to the Planning Area.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.

Policy ER4.3.5: Participate in regional efforts to retain imported water allocations and seek out other sources as they become available.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.
Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff’s department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Significant and Unavoidable Impact.

5.8.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact hydrology and water quality.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to hydrology and water quality is presented on page 8-6 and 8-7 of the GPEIR. The analysis concluded that cumulative hydrology and water quality impacts would be reduced to less than significant if additional water can be obtained from the SWP and efforts to conserve water and recharge the groundwater basin are successful. However, if these measures are not successful, a significant cumulative impact would occur. Further, if the regional drainage system is constructed to serve development in the region, impacts would be mitigated to a less than significant level.

For this topic, the cumulative impacts are analyzed in terms of impacts within the City of Palmdale, along with impacts to the regional drainage facilities under the jurisdiction of the Lahontan RWQCB.

Overall, buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR’s buildout analysis, since additional development within the area was assumed and the project’s impacts on water quality, drainage, and groundwater resources are based upon the development permitted by the Land Use Element. With the exception of groundwater resources, project implementation would be consistent with the analysis presented in the GPEIR, and would result in no greater impacts than previously identified. Future development projects in the City of Palmdale and Lahontan region would be required to mitigate specific hydrologic impacts on a project-by-project basis. Additionally, the City’s Municipal Code incorporates Federal and State regulations and guidelines pertaining to stormwater runoff to avoid or reduce regional water quality impacts. Additionally, all future development within the...
City would be subject to compliance with the GPEIR Policies and Mitigation Measures. Impacts associated with future development in the City would be addressed at a site-specific level to ensure their compliance with the Master Drainage Plan and that their cumulative impact would be less than significant. Thus, implementation of the proposed project would not result in cumulatively considerable impacts to water quality and drainage.

Both PWD and AVEK anticipate water demand would exceed available supplies in the near future. With the reduced availability and reliability of the SWP water supply, reliance on groundwater to meet water demand would be greater. As stated, the groundwater basin is currently in overdraft; therefore, it cannot be determined whether adequate water supply would be available to serve future growth within the proposed Expansion Area. Buildout of the proposed Expansion Area in accordance with the General Plan and development associated with related cumulative projects could substantially deplete groundwater supplies, resulting in a significant unavoidable impact.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Significant and Unavoidable Impact.

**5.8.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

Project implementation would result in less than significant impacts to water quality and hydrology with implementation of the GPEIR Policies and programs. Project and cumulative project impacts to groundwater resources would be significant and unavoidable. If the City of Palmdale approves the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.
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3.0 Project Description
3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

PROJECT LOCATION

The existing Merged Project Area and proposed Expansion Area Amendment are located in the City of Palmdale, in northern Los Angeles County; refer to Exhibit 3-1, Regional Location. The Merged Project Area is currently comprised of several non-contiguous areas totaling 7,468 acres; refer to Exhibit 3-2, Redevelopment Project Areas. The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B) totaling 7,787 acres and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6; refer to Exhibit 3-3, Proposed Expansion Area.

PROJECT SETTING (EXISTING CONDITIONS)

Existing development within the Expansion Area includes residential, government, industrial, institutional, and commercial land uses. The proposed Expansion Area is comprised of Area A and Area B. For descriptive purposes, Area A is divided into four geographic areas: 1) United States Air Force Base Plant 42; 2) Area A – North (Former Palmdale Business Park Specific Plan); 3) Area A – West (west of 15th Street East); and 4) Area A – East (east of 15th Street East), as described below:

Area A – United States Air Force Base Plant 42 and Sites 9 and 10

The largest use within the Expansion Area is the United Air Force Base Plant 42 ("Plant 42"), consisting of 5,415 acres.\(^1\) Plant 42 is a United States Government Owned, Contractor Operated ("GOCO") aerospace technology and manufacturing plant comprised of eight sites and two active 12,000 foot runways. The facilities' tenants are Lockheed Martin, Northrop-Grumman, and Boeing. NASA (Site 9), located adjacent to Plant 42, is a frequent user of Plant 42 airport runways. Lockheed Martin (Site 10) also owns and operates additional facilities that are outside of and adjacent to the boundaries of Plant 42. Original construction of the structures located on Plant 42 began in the 1950s and have not been replaced to date. Many of the structures show signs of dilapidation, deterioration, and obsolescence. Due to their operations and use of Plant 42 facilities, Sites 9 and 10 are included within Plant 42 for analysis purposes.

Area A – North (Former Palmdale Business Park Specific Plan)

The proposed boundaries of the Expansion Area include the 632-acre area formerly designated as the Palmdale Business Park Specific Plan (PBSP). Located at the southeast corner of Sierra Highway and Avenue M, and west of Plant 42, the area is primarily vacant. In 2009 the Specific Plan designation was removed from the area and the land use designation is now IND (Industrial) and PF (Public Facility). The 377-acre site for the proposed Palmdale Hybrid Power

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\(^1\) Due to their operations and use of Plant 42 facilities, Sites 9 and 10 are included within Plant 42 acreage calculations for analysis purposes.
ENVIRONMENTAL IMPACT REPORT
EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

Regional Location

Exhibit 3-1
Merged Project Area

- Proposed Expansion Area
- Project Area No. 2
- Project Area No. 3
- Project Area No. 4

Source: RSG.
Plant ("Power Plant") project is located within the area. The Power Plant project is considered a related project. The City is Seeking approval of a permit from the California Energy Commission to construct and operate the Power Plant, a 570-megawatt electric generating facility at the southeast corner of Avenue M and Sierra Highway. The proposed Power Plant combines clean burning natural gas-fired turbines with state-of-the-art renewable solar equipment. The California Energy Commission is the lead agency for this project under the California Environmental Quality Act (CEQA) and has a certified regulatory program under CEQA. Under its certified program, the Energy Commission is exempt from having to prepare an environmental impact report. Its certified program, however, does require environmental analysis of the project, including an analysis of alternatives and mitigation measures to minimize any significant adverse effect the project may have on the environment. Thus, environmental review and approval of the Power Plant project are not included as part of the proposed Expansion Area Amendment.

**Area A – West**

Area A – West is comprised of residential, commercial, institutional, and industrial uses and vacant land, as well as the Palmdale Transportation Center ("Transportation Center"). The Transportation Center serves as a regional multi-modal hub offering connections between Antelope Valley Transit Authority (AVTA) local and commuter bus service, Metrolink commuter rail service, Santa Clarita Transit, Greyhound bus service, and Amtrak Throughway bus service, as well as park and ride facilities.

**Area A – East**

Area A – East is primarily comprised of residential and commercial uses, as well as vacant land.

**Area B**

Area B is primarily comprised of residential and commercial uses, as well as vacant land.

Table 3-1, *Proposed Expansion Area – Existing Land Uses*, summarizes the existing land uses within the proposed Expansion Area.

Surrounding uses include primarily vacant land to the north; primarily vacant land and residential uses to the east; primarily vacant land and commercial uses to the south; and primarily industrial, office, and residential uses to the west. The City’s downtown core, industrial sectors, and major transportation corridors are in proximity to the Expansion Area.
### Table 3-1
Proposed Expansion Area – Existing Land Uses

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acreage</th>
<th>Residential Dwelling Units</th>
<th>Non-Residential Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>631.07</td>
<td>3,419</td>
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<tr>
<td>Multiple-Family</td>
<td>75.10</td>
<td>1,428</td>
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<tr>
<td><strong>Subtotal Residential</strong></td>
<td><strong>706.17</strong></td>
<td><strong>4,847</strong></td>
<td></td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>26.62</td>
<td></td>
<td>160,213</td>
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<tr>
<td>Industrial</td>
<td>217.09</td>
<td></td>
<td>483,273</td>
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<tr>
<td>Institutional</td>
<td>28.37</td>
<td></td>
<td>107,847</td>
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<tr>
<td>Plant 42</td>
<td>5,414.93</td>
<td></td>
<td>7,063,508</td>
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<tr>
<td>Public Facility</td>
<td>0.57</td>
<td></td>
<td>7,500</td>
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<td>Schools</td>
<td>28.17</td>
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<td>163,694</td>
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<tr>
<td>Agricultural</td>
<td>0.37</td>
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<td>200</td>
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<tr>
<td>Park/Open Space</td>
<td>24.12</td>
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<tr>
<td><strong>Subtotal Non-Residential</strong></td>
<td><strong>5,740.24</strong></td>
<td><strong>7,986,235</strong></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Utilities/Easement</td>
<td>0.69</td>
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<tr>
<td>Roadways/Railroad</td>
<td>68.10</td>
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<tr>
<td>Vacant</td>
<td>1,272.01</td>
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<td></td>
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<tr>
<td><strong>Subtotal Other</strong></td>
<td><strong>1,340.80</strong></td>
<td><strong>4,847</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,787.21</strong></td>
<td></td>
<td><strong>7,986,235</strong></td>
</tr>
</tbody>
</table>

### 3.2 BACKGROUND

California redevelopment law authorizes cities and counties to adopt and amend redevelopment plans intended to revitalize and rehabilitate blighted areas. Redevelopment plans provide a means for redevelopment agencies to encourage private reinvestment in blighted areas through provision of various forms of assistance. Redevelopment is intended to eliminate deficiencies and cause the comprehensive planning, redesign, and reconstruction of specific areas to facilitate a higher and better utilization of land. Redevelopment is also intended to increase construction activities and employment opportunities; provide economic stimulation through commercial growth and expansion; and to increase, improve, and preserve the City’s affordable housing stock and thereby make affordable housing available to persons of very low, low, and moderate income.

The City Council of the City of Palmdale created the Community Redevelopment Agency (CRA) in 1975 to address conditions of physical and economic blight within the City of Palmdale. Since the CRAs formation in 1975, the City Council has adopted four redevelopment projects areas throughout the City, added area to Project Area No. 1, and merged Project Area No. 2,
Project Area No. 3, and Project Area No. 4 ("Existing Project Areas"). Following is a list of ordinances pertaining to Project Area No. 2, Project Area No. 3, and Project Area No. 4:

- Pursuant to Ordinance No. 337, adopted on July 25, 1978, the City Council of the City of Palmdale ("City") adopted a redevelopment plan for the Redevelopment Project No. 2 Area ("Project Area No. 2").

- Pursuant to Ordinance No. 491, adopted on March 10, 1983, the City Council of the City adopted a redevelopment plan for the Redevelopment Project No. 3 Area ("Project Area No. 3").

- Pursuant to Ordinance No. 515, adopted on November 10, 1983, the City Council of the City adopted a redevelopment plan for the Redevelopment Project No. 4 Area ("Project Area No. 4").

- The Redevelopment Plans for Project Area No. 2, Project Area No. 3, and Project Area No. 4 were amended by the City Council of the City pursuant to Ordinance Nos. 1042, 1043 and 1044 on March 24, 1994, which respectively, amended and restated in their entirety the Redevelopment Plans for Project Area No. 2, Project Area No. 3 and Project Area No. 4 and merged Project Area No. 2, Project Area No. 3 and Project Area No. 4 ("Merged Project Area").

The Merged Project Area currently encompasses approximately 7,468 acres (11 percent) of the City’s total 66,995 acres; refer to Exhibit 3-2.

### 3.3 CRA PROJECT OBJECTIVES

The following goals and objectives have been established by the proposed Amended and Restated Redevelopment Plan for the Merged Project Area:

- To continue to contribute to the revitalization of blighted areas;

- To upgrade and revitalize commercial activity in the Project Area;

- To create a neighborhood shopping focus for surrounding neighborhoods;

- To stabilize and improve conditions in the neighborhoods surrounding the Project Area by expanding, improving and preserving the community’s supply of low and moderate income housing;

- To provide adequate parking and improve circulation in the Project Area and surrounding areas;

- To provide an environment, which stimulates private investment;

- To improve the City’s economic health, tax base and employment opportunities;

- To install, replace, and upgrade public facilities and infrastructure including parks and recreation, public safety improvements, acquisition of easements and public right-of-
way, infrastructure assessments/plans, utility improvements, flood control, streetscape, landscaping and noise attenuation;

- To support and encourage cutting-edge, state of the art technology infrastructure development including but not limited to wi-fi, satellite and any other future technologies that may be developed in support of redevelopment, economic development and housing activities;

- To improve transportation infrastructure, including circulation upgrades, grade separation, traffic signals and street improvements;

- To support and encourage development of alternative energy sources;

- To retain, expand and attract businesses by partnering with property owners, tenants and business owners to implement activities such as demolition, clearance and site preparation; relocation assistance, property acquisition and disposition; public and private cooperation, right-of-way acquisition; façade improvements programs; business outreach; Enterprise Zone incentives; Foreign-Trade Zone incentives; and other marketing and business support activities;

- To implement programs and projects to mitigate environmental threats to public health and safety;

- To partner with Plant 42 and the aerospace contractors to address declining and obsolete buildings and hazardous materials and to ensure Plant 42 continues to directly and indirectly create and maintain jobs within the City;

- To promote the construction of the High Desert Corridor, the High Speed Rail, and any other future mass transit project, all for the purpose of expanding economic development opportunities and relieving traffic congestion throughout the region;

- To encourage, support and promote air service at the Palmdale Regional Airport;

- To encourage the provision high-density transit oriented housing and development opportunities through the implementation of the Palmdale Transit Village Specific Plan;

- To develop reliable and cost efficient energy through the Palmdale Power Plant project in order to attract businesses and private investment within the City;

- To provide for the acquisition of land and provision of relocation assistance and payments in support of redevelopment, economic development, and housing activities;

- To provide for the issuance of debt;

- To provide management of property under the ownership and control of the Agency; and

- To provide for the disposition of property for uses in accordance with the Redevelopment Plan.
3.4 PROJECT CHARACTERISTICS

The Community Redevelopment Agency (CRA) of the City of Palmdale adopted a resolution on August 4, 2010 accepting and approving a Preliminary Plan for the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area (Expansion Area Amendment or Proposed Project). The boundaries of the area proposed to be added with the Expansion Area Amendment were established through the Preliminary Plan, which was considered and approved by the City’s Planning Commission at its meeting on July 8, 2010. On January 13, 2011, the Planning Commission amended the boundaries to correct a technical issue. The Preliminary Plan identifies the boundaries of the proposed Expansion Area to the Merged Project Area, summarizes conditions of blight within the proposed Expansion Area, and provides the CRA’s approach to planning, project implementation, and financing of long-term redevelopment activities in the Merged Project Area, as amended.

The Proposed Expansion Area Amendment involves an amendment to the Redevelopment Plan for the Merged Project Area to add 7,787 acres to the Merged Project Area (Expansion Area), increasing the total acreage to 15,255 acres for the Merged Project Area. The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B) and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6; refer to Exhibit 3-3.

Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan (Merged Plan). If adopted, the Merged Plan would allow the CRA to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area.

Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended. Therefore, the Redevelopment Plan for the Merged Project Area will incorporate and track the General Plan goals and land use designations.

Table 3-2, Proposed Expansion Area – Growth Potential Over Existing Conditions, provides the land uses and development potential for the proposed Expansion Area assuming development of vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. As indicated in Table 3-2, buildout of the remaining vacant/underutilized parcels in the proposed Expansion Area in accordance with the General Plan may result in an additional 1,732 residential dwelling units and 18,866,968 square feet of non-residential uses. This growth potential represents additional growth over year 2010 existing conditions if vacant and underutilized sites are developed to their full General Plan buildout capacity.
Table 3-2
Proposed Expansion Area – Growth Potential Over Existing Conditions

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Residential Dwelling Units</th>
<th>Non-Residential Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>341</td>
<td></td>
</tr>
<tr>
<td>Multiple-Family</td>
<td>1,391</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Residential</strong></td>
<td><strong>1,732</strong></td>
<td></td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>1,121,208</td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td>16,642,741</td>
</tr>
<tr>
<td>Public Facilities</td>
<td></td>
<td>103,019</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td><strong>Subtotal Non-Residential</strong></td>
<td><strong>18,866,968</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,732</strong></td>
<td><strong>18,866,968</strong></td>
</tr>
</tbody>
</table>

**PROPOSED AMENDMENT**

The primary purpose of proposed Expansion Area Amendment is to alleviate conditions of blight in the Expansion Area. The CRA will accomplish this task through the implementation of the programs described below. The CRA is not, however, limited to these programs and may choose to modify these programs and adopt additional programs during the term of existence of the Expansion Area pursuant to the Redevelopment Plan for the Merged Project Area. All public and private activities or undertakings pursuant to or in furtherance of the proposed Expansion Area Amendment, constitute a single project for purposes of CEQA.

**Proposed Projects and Programs**

The following projects and programs have been identified in the proceedings related to the proposed Expansion Area Amendment, if approved:

- *Public Facilities and Infrastructure Improvements*. Public facilities and infrastructure improvements would involve replacing and upgrading public facilities and infrastructure to support existing and future development. Potential improvements include, but are not limited to, assisting with parks and recreation/community centers, street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, infrastructure assessments/plans, utility improvements, flood control and culverts, streetscape and landscape, and noise attenuation.

- *Transportation*. Transportation improvements would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.
• **Economic Development Activities and Infill Development.** Economic development activities to retain, expand, and attract businesses in the Expansion Area would complement the overall goals for urban revitalization of the area. The CRA would partner with property owners, tenants, and business owners to implement economic development activities. Potential activities include property owner, tenant and business owner participation; demolition, clearance and site preparation; relocation assistance; property acquisition and disposition; public and private cooperation; right of way acquisition; facade improvement programs; business outreach; Enterprise Zone administration; Foreign-Trade Zone administration; marketing and business support activities.

Direct activities proposed include the acquisition and assembly of adequately and inadequately sized lots for reuse and new development in order to facilitate private investment and reinvestment in the Expansion Area, demolition, site clearance, site preparation, and/or relocation assistance, as well as right-of-way acquisition.

Set aside funds such as loans and grants would be used to alleviate serious blighting conditions such as dilapidated roofs, faulty weather protection, code violations, and other physical blighting conditions or public improvements existing within the Expansion Area. Tax increment financing would be used for all public and private activities in furtherance of the redevelopment plan including, but not limited to, rehabilitation, business assistance, public improvements, and to improve facades in commercial and industrial areas in order to encourage new businesses to locate within the Expansion Area and to encourage private investment from new and existing businesses.

• **Environmental Remediation and Brownfields Revitalization.** Projects and programs would be implemented to mitigate environmental threats to public health and safety, and transform contaminated, underutilized properties, otherwise known as “brownfields” into productive assets of the community. These programs would help to address existing blighting conditions by improving impaired property values, stimulating private investment, and reducing significant risks to the health, safety, and welfare of Expansion Area residents and workers located near contaminated properties.

• **Affordable Housing.** The CRA would deposit 20 percent of the gross tax increment collected into the Low and Moderate Income Housing Fund for the creation and improvement of affordable housing. These funds would be used to increase, improve, and preserve the supply of low and moderate income housing in the community. Specific activities may include, but are not limited to, site acquisitions, developer subsidies for constructing affordable housing, identifying and developing infill housing, rehabilitating existing units and converting them to affordable units, and purchasing affordability covenants. Additionally, the City’s Neighborhood Improvement Program would be implemented within the Expansion Area.

Tax increment financing would be used to reduce/eliminate blighted factors in residential areas such as dilapidated structures, damaged and substandard exterior building materials, and homes lacking sufficient weatherproofing. The CRA would potentially purchase or provide loans to property owners to rehabilitate these structures and make them available to very low, low, and moderate income families. The CRA may be able to assemble vacant parcels and
dilapidated buildings for a consolidated affordable housing development that would provide additional housing opportunities.

### 3.5 PHASING

Individual improvement and redevelopment projects would occur in incremental phases over time, based largely on economic considerations, financial feasibility, infrastructure improvements, market demand, and other planning considerations. The phasing and exact details of each project would be evaluated by the CRA on a case-by-case basis.

### 3.6 AGREEMENTS, PERMITS, AND APPROVALS

Following a determination that the Final EIR is adequate and certification of the Final EIR by the City Council, and after the approval of the Amendments by ordinance of the City Council, a Notice of Determination would be filed for project approval. Adoption of the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area would be the responsibility of the City Council by adoption of an ordinance of the City Council. In accordance with Section 21090 (Redevelopment Projects) of the Public Resources Code and Section 15180 (Redevelopment Projects) of the CEQA Guidelines, all public and private activities or undertakings pursuant to or in furtherance of the proposed Expansion Area Amendment, constitute a single project for purposes of CEQA, which shall be deemed approved at the time of the approval of the Expansion Area Amendment by the City Council. No subsequent EIR's are required for individual components of the Expansion Area Amendment unless a subsequent EIR or supplement to the EIR is required by CEQA Guidelines Sections 15162 or 15163, or to the extent additional environmental review is required by Section 15168 of the CEQA Guidelines.
4.0 Basis for Cumulative Analysis
4.0 BASIS FOR CUMULATIVE ANALYSIS

4.1 INTRODUCTION

CEQA Guidelines Section 15355 defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts . . .” The following elements are necessary in an adequate discussion of cumulative impacts, as noted in Sections 15130(b) through 15130(e) of the CEQA Guidelines.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other project contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

1. Either:
   a. 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, or
   b. A summary of projections 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 areawide conditions contributing to the cumulative impact.

2. When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resources being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

3. Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.

4. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

5. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects.
(c) With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.

(d) Previously approved land use documents such as general plans, specific plans, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impact analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in Section 15152(f), in a certified EIR for that plan.

(e) If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided by Section 15183(j).

4.2 CUMULATIVE ANALYSIS IN THIS EIR

Cumulative impacts may be discussed in terms of buildout of the Palmdale General Plan, in combination with impacts anticipated for future development (including approved and planned development within the Expansion Area and surrounding affected area), and impacts associated with growth within the region. The geographic area for each impact varies, depending on the nature of the impact, whether it is regional, such as air quality, or local, such as noise.

Quantification can be difficult for cumulative impacts, as it requires speculative estimates of impacts including, but not limited to the following: the geographic diversity of impacts (impacts of future development may affect different areas); variations in time of impacts; and changes in data for buildout projections following subsequent approvals. However, every attempt has been made herein to make sound qualitative judgments of the combined effects of, and relationship between, land uses and potential impacts.

In compliance with CEQA Guidelines Section 15130(1)(b), the cumulative analysis sections of the EIR describe the environmental effects of buildout of the proposed Expansion Area Amendment in accordance with the General Plan, in combination with the effects of regional buildout, as forecasted by the Southern California Association of Governments (SCAG) in the 2008 Regional Transportation Plan Growth Forecasts.

As of January 1, 2010, the California Department of Finance (DOF) estimated the City of Palmdale’s housing stock to be 46,605 dwelling units and population to be 152,622 persons. Essential public services and a network of utilities and service systems are available to these residents, as discussed in Section 5.11 through Section 5.19.
The General Plan forecast for the City’s 2010 (buildout) housing stock would total 139,205 dwelling units.\(^1\) Comparatively, the General Plan’s 2010 forecast housing stock is approximately 198 percent greater than the City’s 2010 existing housing stock of 46,605 dwelling units. SCAG projects the City’s housing inventory will increase to 97,292 dwelling units by 2035, which would represent an increase of approximately 110 percent between 2010 and 2035.

The GPEIR forecast for the City’s 2010 (buildout) population would total 441,280 persons.\(^2\) Comparatively, the General Plan’s 2010 forecast population is 189 percent greater than the City’s 2010 existing population of 152,622 persons. SCAG forecasts the City’s population will total approximately 346,767 persons by 2035, which would represent an increase of approximately 127 percent between 2010 and 2035.

Growth has occurred in the City between 1993 (when the General Plan/GPEIR were prepared) and 2009. The State of the City Report (SOC) was prepared to evaluate the changes that occurred in the City from 1993. SOC Table 2.02 (General Plan Buildout Statistics Incorporated City Boundary) summarizes General Plan buildout statistics as updated to reflect annexations and new development proposals that required General Plan Amendments, since the time the last General Plan update was prepared. As indicated in SOC Table 2.02, at buildout of the 104.59 square miles encompassed within the City of Palmdale, the SOC estimated that growth in Palmdale could reach the following maximum levels:\(^3\)

- Dwelling Units: 136,934;
- Population: 487,485 persons;
- Employment: 611,113 total jobs (117,967 jobs in commercial sector and 493,146 jobs in industrial sector); and
- Jobs/Housing Ration: 4.46 jobs per household.

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\(^1\) City of Palmdale, *Final Program EIR for the City of Palmdale General Plan*, February 1, 1993, Page 4-101.

\(^2\) Ibid.

\(^3\) Employment estimates were calculated using maximum building coverage permitted by Code per acre for commercial and industrial land, and assuming 600 square feet per employee for commercial retail uses, 275 square feet per employee for commercial office uses, 400 square feet per employee for Business Park uses and 1,200 square feet per employee for industrial uses.
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5.0 Environmental Analysis
5.0 ENVIRONMENTAL ANALYSIS

The Subsections 5.1 through 5.19 of the EIR contain a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short- and long-term, and cumulative), recommended mitigation measures, and unavoidable adverse impacts. This EIR analyzes those environmental issue areas as stated in the Notice of Preparation and Initial Study (Appendix A, Initial Study Checklist/Notice of Preparation) where potentially significant impacts have the potential to occur.

The EIR will examine the following environmental factors:

5.1 Population, Employment, and Housing;
5.2 Transportation and Circulation;
5.3 Air Quality;
5.4 Global Climate Change;
5.5 Noise;
5.6 Geology and Seismic Hazards;
5.7 Hazards and Hazardous Materials;
5.8 Hydrology and Water Quality;
5.9 Biological Resources;
5.10 Cultural Resources;
5.11 Police Protection;
5.12 School Facilities;
5.13 Parks and Recreational Facilities;
5.14 Library Services;
5.15 Water;
5.16 Wastewater;
5.17 Solid Waste;
5.18 Electricity and Natural Gas; and
5.19 Communications Systems.

Each environmental issue is addressed in a separate section of the EIR, and is organized into seven sections, as follows:

- Introduction;
- Existing Conditions;
- Regulatory Framework;
- Significance Threshold Criteria;
- Impacts and Mitigation Measures;
- Cumulative Impacts and Mitigation Measures; and
- Significant Unavoidable Impacts;

"Introduction" identifies the resources utilized in preparing the analysis and summarizes changes that have occurred within the project area since certification of the General Plan EIR and identifies the General Plan EIR impact conclusions.

"Existing Conditions" describes the physical conditions that exist at this time and that may influence or affect the issue under investigation.
“Regulatory Framework” describes the applicable Federal, State, and local regulatory plans, policies, or ordinances.

“Significance Threshold Criteria” provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in the CEQA Guidelines Appendix G, Environmental Checklist.

Major sources used in crafting criteria include the CEQA Guidelines; local, state, federal, or other standards applicable to an impact category; and officially established significance thresholds. “... An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting.” (CEQA Guidelines Section 15064[b]). Principally, “...a substantial, or potentially substantial adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance” constitutes a significant impact (CEQA Guidelines Section 15382).

“Impacts and Mitigation Measures”

Project impacts are the potential environmental changes to the existing physical conditions that may occur if the Proposed Project is implemented.

Evidence, based on factual and scientific data, is presented to show the cause and effect relationship between the Proposed Project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range, or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts may be significant; all of the potential direct and reasonably foreseeable indirect effects are considered.

Mitigation measures are those project-specific measures that would be required of the Proposed Project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

The “Level of Significance” identifies the impacts that will remain after the application of mitigation measures, if applicable, and whether the remaining impacts are or are not considered significant. When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as “unavoidable significant impacts.”

“Cumulative Impacts and Mitigation Measures” describes potential environmental changes to the existing physical conditions that may occur with the Proposed Project together with all other reasonably foreseeable, planned, and approved future projects, as discussed in Section 4.0.

“Significant Unavoidable Impacts” describes impacts that would be significant, but cannot be feasibly mitigated to less than significant, so would be unavoidable. To approve a project with unavoidable significant impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to
approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered “acceptable” and the project approved (CEQA Guidelines Section 15093[a]).
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5.1 Population, Employment, and Housing
5.1 POPULATION, HOUSING, AND EMPLOYMENT

5.1.1 INTRODUCTION

This section identifies existing conditions within the Expansion Area and analyzes potential population, housing, and employment impacts associated with the proposed Expansion Area Amendment (proposed project).

Information presented in this section is based upon data obtained from the following sources:

- 1990 and 2000 United States Census;
- California Department of Finance (DOF);
- California Employment Development Department (EDD);
- Southern California Association of Governments (SCAG);
- City of Palmdale General Plan;
- Final Program EIR for the City of Palmdale General Plan (GPEIR); and
- City of Palmdale State of the City Report (SOC).

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with population and growth resulting from full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.7 (Population) (pages 4-101 through 4-114). The GPEIR concluded the following regarding General Plan buildout:

- Development of non-residential uses under the proposed Land Use Plan would result in removal of existing residential units and displacement of households. This impact was concluded to be less than significant.

- The City’s 2010 (buildout) population would total 441,280 persons. The forecast population growth would increase the demand for public services, infrastructure, housing, commercial and professional services, jobs, consumer goods, and recreational facilities. This impact was concluded to be less than significant.

- The increase in non-residential development would exceed the increase in residential development, resulting in a local labor market that may provide more jobs than can be filled by local residents. This impact was considered significant and unavoidable.
• Development of non-residential uses under the proposed Land Use Plan would result in removal of existing residential units. This impact was concluded to be less than significant.

## 5.1.2 EXISTING CONDITIONS

### POPULATION

#### County of Los Angeles

The County’s population totaled 8,863,164 persons in 1990 and 9,519,338 persons in 2000, representing a growth rate of approximately 7.4 percent for this time period; refer to Table 5.1-1, Population Estimates and Projections. As of January 2010, the County’s population was an estimated 10,441,080 persons. According to SCAG, the County’s population is projected to total 13,049,624 persons by 2035, which would represent an increase of approximately 25 percent between 2010 and 2035.

![Table 5.1-1 Population Estimates and Projections](image)

<table>
<thead>
<tr>
<th>Year/Description</th>
<th>County of Los Angeles (Persons)</th>
<th>City of Palmdale (Persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census 1990¹</td>
<td>8,863,164</td>
<td>68,842</td>
</tr>
<tr>
<td>Census 2000²</td>
<td>9,519,338</td>
<td>116,670</td>
</tr>
<tr>
<td>1990 - 2000 Change</td>
<td>+656,174</td>
<td>+47,828</td>
</tr>
<tr>
<td>1990 - 2000 % Change</td>
<td>+7.4%</td>
<td>+69.5%</td>
</tr>
<tr>
<td>DOF 2010³</td>
<td>10,441,080</td>
<td>152,622</td>
</tr>
<tr>
<td>SCAG 2035⁴</td>
<td>13,049,624³</td>
<td>346,767⁵</td>
</tr>
<tr>
<td>2010 – 2035 Change</td>
<td>+2,608,554</td>
<td>+194,145</td>
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<tr>
<td>2010 – 2035 % Change</td>
<td>+25%</td>
<td>+127.2%</td>
</tr>
</tbody>
</table>

1. U.S. Census Bureau, Census 1990.
5. Assumes 4,179,892 DU (refer to Table 5.1-2) and 3.122 persons per household (DOF).
6. Assumes 97,929 DU (refer to Table 5.1-2) and 3.541 persons per household (DOF).
City of Palmdale

As indicated in Table 5.1-1, the City’s population totaled 68,842 persons in 1990 and 116,670 persons in 2000, representing a population growth rate of approximately 70 percent between 1990 and 2000. As of January 2010, the City’s existing population totaled 152,622 persons. The GPEIR forecasts that the City’s buildout population would total 441,280 persons. The SOC summarizes General Plan buildout statistics as updated to reflect annexations and development proposals that involved General Plan Amendments, since preparation of the GP/GPEIR. The SOC forecasts the City’s population could reach 487,485 persons at buildout. Comparatively, the SOC’s forecast buildout population is 193 percent greater than the City’s 2010 existing population of 152,622 persons.

SCAG forecasts the City’s population will total approximately 346,767 persons by 2035, which would represent an increase of approximately 127 percent between 2010 and 2035. Comparatively, the City is forecast to grow at a significantly higher rate between 2010 and 2035 than the County, which is forecast to grow by approximately 25 percent. By 2035, the City would constitute approximately 2.7 percent of the County’s total population.

Expansion Area

A total of 4,847 dwelling units (du) are located in the project area; refer to the Housing [Expansion Area] Section below. Assuming an average of 3.541 persons per household (DOF), the project area’s estimated population is 17,170 persons.

HOUSING

County of Los Angeles

The County of Los Angeles’ housing data is presented in Table 5.1-2, Housing Stock Estimates and Projections. The County’s housing stock in 2000 was an estimated 3,270,909 DU, which represented an increase of approximately 3.4 percent over the 1990 inventory of 3,163,343 DU. The County’s housing stock as of January 2010 totaled 3,431,588 DU, with a vacancy rate of 4.22 percent and an average household size of 3.122 persons. The County’s housing stock is projected to total 4,179,892 DU by 2035, representing an increase of approximately 22 percent between 2010 and 2035.

City of Palmdale

In 2000, the City’s housing stock was an estimated 37,096 DU, which represented an increase of approximately 52 percent over the 1990 inventory of 24,400 DU; refer to Table 5.1-2. Comparatively, the City’s housing growth rate between 1990 and 2000 was significantly greater than the County’s growth rate for the same period (3.4 percent). The City’s housing stock as of January 2010 is 46,605 DU, approximately 26 percent greater than the inventory in 2000.

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1 City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-101.

Additionally, the City’s average household size (3.541) is higher than the County’s overall household size (3.122 persons per household).

The General Plan forecasts the City’s buildout housing stock would total 139,205 DU. Considering the General Plan Amendments, since preparation of the GP/GPEIR, the SOC forecasts the City’s housing stock could total 136,934 DU at buildout. Comparatively, the SOC’s forecast housing stock at buildout is approximately 193 percent greater than the City’s 2010 existing housing stock of 46,605 DU. SCAG projects the City’s housing stock will increase to 97,929 DU by 2035, which would represent an increase of approximately 110 percent between 2010 and 2035; refer to Table 5.1-2.

Table 5.1-2
Housing Stock Estimates and Projections

<table>
<thead>
<tr>
<th>Year/Description</th>
<th>County of Los Angeles</th>
<th>City of Palmdale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census 1990 Dwelling Units¹</td>
<td>3,163,343</td>
<td>24,400</td>
</tr>
<tr>
<td>Census 2000 Dwelling Units²</td>
<td>3,270,909</td>
<td>37,096</td>
</tr>
<tr>
<td>1990 - 2000 Change</td>
<td>+107,566</td>
<td>12,696</td>
</tr>
<tr>
<td>1990 - 2000 % Change</td>
<td>+3.4%</td>
<td>+52%</td>
</tr>
<tr>
<td>DOF 2010 Dwelling Units³</td>
<td>3,431,588</td>
<td>46,605</td>
</tr>
<tr>
<td>DOF 2010 Vacancy Rate³</td>
<td>4.22%</td>
<td>7.57%</td>
</tr>
<tr>
<td>DOF 2010 Persons per Household³</td>
<td>3.122</td>
<td>3.541</td>
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<tr>
<td>SCAG 2035 Dwelling Units⁴</td>
<td>4,179,892</td>
<td>97,929</td>
</tr>
<tr>
<td>2010 - 2035 Change</td>
<td>+748,304</td>
<td>51,324</td>
</tr>
<tr>
<td>2010 - 2035 % Change</td>
<td>+21.8%</td>
<td>+110.1%</td>
</tr>
</tbody>
</table>

1. U.S. Census Bureau, Census 1990.
5. Assumes 4,003,501 households (SCAG RTP) and 4.22% vacancy rate (DOF).
6. Assumes 90,516 households (SCAG RTP) and 7.57% vacancy rate (DOF).

Vacancy rates are a measure of the general availability of housing. They also indicate how well the types of available units meet the housing market demand. A low vacancy rate suggests that households may have difficulty finding housing within their price range, whereas a high vacancy rate indicates that either the units available are not suited to the population’s needs or there is an oversupply of housing units. The availability of vacant housing units provides households with choices of type and price to accommodate their specific needs. Low vacancy rates can result in higher prices, limited choices, and settling with inadequate housing. It may also contribute to overcrowding. A vacancy rate between 4.0 and 6.0 is considered “healthy.” As indicated in Table 5.1-2, the City’s vacancy rate as of January 2010 is 7.57 percent, which is

³ City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-101.
higher than the preferred maximum vacancy rate of 6.0 and significantly greater than the County's overall vacancy rate of 4.22 percent.

**Expansion Area**

As previously noted, a total of 4,847 DU are located in the project area, including 3,419 single-family and 1,428 multiple-family units. These dwellings are located in the southern portion of the project area.

**EMPLOYMENT**

**County of Los Angeles**

The County's 1990 civilian labor force was an estimated 4,557,390 persons; refer to Table 5.1-3, *Labor Force and Employment Estimates and Projections*. In 2000, the County's civilian labor force was an estimated 4,307,762 persons, of which approximately 8.2 percent were unemployed.

<table>
<thead>
<tr>
<th>Year</th>
<th>County of Los Angeles</th>
<th>City of Palmdale</th>
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<tbody>
<tr>
<td>1990 Labor Force¹</td>
<td>4,557,390</td>
<td>33,226</td>
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<tr>
<td>2000 Labor Force²</td>
<td>4,307,762</td>
<td>48,183</td>
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<td>1990 – 2000 Change</td>
<td>-249,628</td>
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<tr>
<td>1990 – 2000 % Change</td>
<td>-5.5%</td>
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<tr>
<td>1990 Unemployment Rate (%)²</td>
<td>7.3%</td>
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<td>2000 Unemployment Rate (%)²</td>
<td>8.2%</td>
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<td>2009 Labor Force³</td>
<td>4,896,100</td>
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<td>2000 – 2009 Change</td>
<td>+588,338</td>
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<td>2000 – 2009 % Change</td>
<td>+13.7%</td>
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<tr>
<td>2009 Unemployment Rate (%)³</td>
<td>11.6%</td>
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<tr>
<td>2010 Employment (Jobs)⁴</td>
<td>4,552,398</td>
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<td>2035 Employment (Jobs)⁴</td>
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<tr>
<td>2010 – 2035 Change</td>
<td>+488,774</td>
<td>+12,049</td>
</tr>
<tr>
<td>2010 – 2035 % Change</td>
<td>+10.7%</td>
<td>+34.4%</td>
</tr>
</tbody>
</table>

1. U.S. Census Bureau, Census 1990.
According to the U.S. Census 2000, the majority of the County’s labor force (approximately 34.3 percent) was employed in management, professional, and related occupations; the next highest concentration of the labor force (approximately 27.6 percent) was in sales and office occupations. The largest industry sector in the County was educational, health, and social services. In 2009, the County’s labor force totaled 4,896,100 persons, with an unemployment rate of 12 percent. Between 2000 and 2009, the unemployment rate increased 3.8 percentage points. According to SCAG projections, Los Angeles County’s labor market is projected to increase from 4,552,398 jobs in 2010 to 5,041,172 jobs by 2035. The labor market’s growth rate between 2010 and 2035 would be approximately 10.7 percent (488,774 jobs).

City of Palmdale

As indicated in Table 5.1-3, the City’s 1990 civilian labor force totaled approximately 33,226 persons. In 2000, the City’s civilian labor force totaled an estimated 48,183 persons, with an unemployment rate of 9.8 percent. According to the U.S. Census 2000, of those employed in 2000, approximately 25.6 percent were in sales and office occupations and approximately 28.2 were in management, professional, and related occupations, and approximately 27.6 percent were in sales and office occupations. The largest industry sector in the City was educational, health, and social services (19.2 percent). As of December 2009, the City’s labor force was an estimated 55,900 persons and the unemployment rate was 14.3 percent. The City’s unemployment rate increased 4.5 percentage points between 2000 and 2009.

Under existing conditions, the City’s total housing stock is 46,605 DU and employment is 35,059 jobs. The resultant jobs/housing ratio of 0.75 jobs per dwelling would be less than the ideal balance ratio of 1.22 jobs per unit. Based on existing housing and employment, a housing rich condition currently exists in the City.

The General Plan forecasts the City’s employment at buildout would total 601,900 jobs. Considering the General Plan Amendments, since preparation of the GP/GPEIR, the SOC forecasts the City’s employment could total 611,113 jobs at buildout. According to SCAG forecasts, the City’s labor market (jobs) is forecast to grow from approximately 35,059 jobs in 2010 to 47,108 jobs in 2035, a growth rate of approximately 35 percent (12,049 jobs); refer to Table 5.1-3.

Expansion Area

Table 5.1-4, Expansion Area Employment Estimates, estimates the project area’s current employment, based on existing non-residential land uses. As indicated in Table 5.1-4, the project area’s current employment is an estimated 6,916 jobs.

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4 City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-102.
Table 5.1-4
Expansion Area Employment Estimates

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Employment Factor (Square Feet per Employee)</th>
<th>Square Feet</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>500</td>
<td>160,213</td>
<td>320</td>
</tr>
<tr>
<td>Industrial</td>
<td>1,250</td>
<td>483,273</td>
<td>387</td>
</tr>
<tr>
<td>Institutional</td>
<td>500</td>
<td>107,847</td>
<td>216</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td>1,250</td>
<td>7,063,508</td>
<td>5,651</td>
</tr>
<tr>
<td>Public Facility</td>
<td>500</td>
<td>7,500</td>
<td>15</td>
</tr>
<tr>
<td>Schools</td>
<td>500</td>
<td>163,694</td>
<td>327</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>7,986,235</strong></td>
<td><strong>6,916</strong></td>
</tr>
</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-102.

### 5.1.3 REGULATORY FRAMEWORK

**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts for local governments from Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. To facilitate regional planning efforts, SCAG’s planning area is further organized into 14 subregions. The City of Palmdale is one of the four cities located in the North Los Angeles County Subregion.

Current regional growth forecasts are provided in SCAG’s 2008 Regional Transportation Plan (RTP), adopted March 6, 2008. SCAG’s demographic data is developed to enable the proper planning of infrastructure and facilities to adequately meet the needs of the anticipated growth. The RTP Growth Forecasts for the County of Los Angeles, North Los Angeles County Subregion, and City of Palmdale are used in this section in order to analyze existing and future population, housing, and employment conditions.

**REGIONAL HOUSING NEEDS ASSESSMENT (RHNA)**

California Housing Element law requires that each city and county develop local housing programs designed to meet their “fair share” of existing and future housing needs for all income groups, as determined by the jurisdiction’s regional Council of Governments, when preparing the state-mandated Housing Element of its General Plan. This “fair share” allocation is intended to ensure each jurisdiction provides policies and programs to address existing and forecasted housing needs.

The City of Palmdale is a member government of SCAG, which prepared a Regional Housing Needs Assessment (RHNA) in 2007 quantifying the existing and projected growth needs for Palmdale. The housing construction need is determined for four broad household income...
categories: very low (households making less than 50 percent of median family income), low (50 to 80 percent of median family income), moderate (80 to 120 percent of median family income), and above moderate (more than 120 percent of median family income). The intent of the future needs allocation by income groups is to relieve the undue concentration of very low and low-income households in a single jurisdiction and help allocate resources in a fair and equitable manner.

The RHNA allocated the City’s housing growth needs for the period January 1, 2006 to June 30, 2014; refer to Table 5.1-5, *RHNA Allocation 2006-2014*. As indicated in Table 5.1-5, the City’s fair share housing needs allocation for the planning period of 2006 to 2014 is 17,910 housing units, including 7,303 units within the low and very low income categories.

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Housing Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>4,481</td>
</tr>
<tr>
<td>Low</td>
<td>2,822</td>
</tr>
<tr>
<td>Moderate</td>
<td>3,024</td>
</tr>
<tr>
<td>Above Moderate</td>
<td>7,583</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17,910</strong></td>
</tr>
</tbody>
</table>


**CITY OF PALMDALE GENERAL PLAN HOUSING ELEMENT**

The City of Palmdale adopted the current Housing Element for 1998-2005 on April 11, 2001. The City’s Housing Element includes an inventory of available housing and an assessment of housing needs based on local and regional population and employment trends. As required by California housing law, the Housing Element outlines existing needs within the City based on SCAG projections and identifies strategies that the City will employ to achieve its housing objectives. The Housing Element establishes policies that will guide City decision making and sets forth a strategy and programs to implement housing goals.

The RHNA allocated the City’s housing growth needs for the period January 1, 1998 to June 30, 2005; refer to Table 5.1-6, *RHNA Allocation 1998-2005*. As indicated in Table 5.1-6, the City’s fair share housing needs allocation for the planning period of 1998 to 2005 is 9,878 housing units, including 3,495 units within the low and very low income categories.
Table 5.1-6
RHNA Allocation 1998-2005

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Housing Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>1,974</td>
</tr>
<tr>
<td>Low</td>
<td>1,521</td>
</tr>
<tr>
<td>Moderate</td>
<td>2,487</td>
</tr>
<tr>
<td>Above Moderate</td>
<td>3,895</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,878</strong></td>
</tr>
</tbody>
</table>


The Housing Element concluded (Table 21), there are sites with infrastructure in place for 21,585 single family units and an additional 2,063 units could be built on underdeveloped sites as either second housing units or density bonus units. Overall, the Housing Element concludes there is sufficient land in Palmdale to build both single and multifamily units at a range of densities affordable to all income levels.5

5.1.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Checklist includes questions relating to population, housing, and growth, which have been utilized as thresholds of significance in this Section. Accordingly, a significant environmental impact would occur if the project would:

- Significantly alter the location, distribution, density, or growth rate of the human population of an area;
- Create a significant demand for additional housing; and
- Result in displacement of people from existing housing on the site.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.1.5 IMPACTS AND MITIGATION MEASURES

ALTERATIONS TO HUMAN POPULATION

Thresholds:
Would the project significantly alter the location, distribution, density, or growth rate of the human population of an area?

Would the project result in displacement of people from existing housing on the site?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area ("Expansion Area"). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Development of land uses within the Expansion Area would be pursuant to that permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the project area, buildout of the Expansion Area could result in an additional 1,732 residential dwellings and 18.9 million square feet of non-residential land uses; refer to Table 3-2, Expansion Area - Growth Potential Over Existing Conditions.

Displacement and Location of Population. The installation/replacement of public improvements, facilities, and utilities within the Expansion Area would not alter the location of the area’s human population or result in their displacement. Project implantation would result in less than significant impacts in this regard.

As illustrated on the General Plan Land Use Plan, a total of 347 existing single-family DU within the Expansion Area are located on properties that are designated Industrial (IND). According to the Land Use Element, the Industrial (IND) designation is intended to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. These existing residential land uses are not consistent with the intended use for these properties. It is anticipated that these non-conforming uses would transition to industrial uses, consistent with the Land Use Plan’s designation for the properties. This transition from residential to industrial uses would occur over time, given the Redevelopment Plan does not propose to acquire residential properties through eminent domain. Therefore, buildout of the Expansion Area in accordance with the General Plan would alter the location of a portion of the Expansion Area’s human population, given properties containing 347 DU would transition to industrial uses, displacing households and approximately 1,229 persons. However, pursuant to California Redevelopment Law, the City’s Redevelopment Agency would prepare a Relocation Plan, in order to relocate families and persons that would be displaced due to buildout of the Expansion Area. Additionally, as concluded in the Demand for Additional Housing Section below, the new residential development combined with the existing vacancies in Palmdale, Lancaster, and Santa Clarita would satisfy the majority of the housing demand created by the loss of dwellings. Future

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6 Displaced population estimate assumes an average of 3.541 persons per household (CA DOF).
development would also be subject to compliance with the General Plan Policies, which were established to mitigate the impacts involving population displacement and alterations to the locations of the area's population. Therefore, buildout of the Expansion Area in accordance with the General Plan would result in less than significant impacts involving the displacement of households/population.

Population Distribution and Density. The installation/replacement of public improvements, facilities, and utilities within the Expansion Area would not alter the area’s population distribution or density. Project implantation would result in less than significant impacts in this regard.

As illustrated on the Land Use Plan, 347 dwellings are located on properties that are designated Industrial (IND), which is intended to permit a variety of industrial uses. The existing residential land uses are not consistent with the intended use for these properties. It is anticipated that these non-conforming uses would transition to industrial uses, consistent with the Land Use Plan’s designation for the properties. The proposed project does not involve an amendment to the Land Use Element (Land Use Plan). Therefore, the proposed project would not alter the General Plan’s permitted distribution or density of the human population within the Expansion Area. It is noted, buildout of the Expansion Area in accordance with the General Plan would alter the area’s existing population density, due to the development of an additional 1,732 residential dwellings; refer to the Population Growth discussion that follows.

Population Growth. A project could induce population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Residential and Non-Residential Development

Residential and non-residential development within the Expansion Area in accordance with the General Plan would induce direct population growth within the area and City. The development of an additional 1,732 dwellings is anticipated in the Expansion Area, resulting in a potential population growth of approximately 6,133 persons. Additionally, the development of an additional 18.9 million square feet of non-residential land uses is anticipated. The employment projection associated with the non-residential land uses is approximately 16,563 jobs; refer to Table 5.1-7, Expansion Area Employment Forecasts.

The employment generated by the non-residential development could induce direct population growth in the City, because the potential exists for future employees (and their families) to relocate to the City. Estimating the number of these future employees who would relocate to the City would be highly speculative, because many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Thus, the number of new employees who may relocate to the City to fill the newly created positions is unknown. However, as discussed above, the City’s 2009 unemployment rate was 14.3 percent (8,000 persons). The 2009 unemployment rate in Lancaster, an adjacent City, was 16.2 percent (9,200 persons). Additionally, the potential exists that the population

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7 This population projection is based on 100 percent occupancy, 1,732 new DU, and 3.541 persons per household.

attributed to the new residential development (9,200 persons) would partially fill the newly created positions. Therefore, significant population growth due to non-residential development is not anticipated within the Expansion Area or City.

**Table 5.1-7**

**Expansion Area Employment Forecasts**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Employment Factor (Square Feet per Employee)</th>
<th>Existing Employment</th>
<th>Expansion Area</th>
<th>Total Employment Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Square Feet</td>
<td>Employment Estimate</td>
</tr>
<tr>
<td>Commercial</td>
<td>500</td>
<td>320</td>
<td>1,121,208</td>
<td>2,242</td>
</tr>
<tr>
<td>Industrial</td>
<td>1,250</td>
<td>387</td>
<td>16,642,741</td>
<td>13,314</td>
</tr>
<tr>
<td>Institutional</td>
<td>500</td>
<td>216</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td>1,250</td>
<td>5,651</td>
<td>1,000,000</td>
<td>800</td>
</tr>
<tr>
<td>Public Facility</td>
<td>500</td>
<td>15</td>
<td>103,019</td>
<td>206</td>
</tr>
<tr>
<td>Schools</td>
<td>500</td>
<td>327</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>6,916</td>
<td>18,866,968</td>
</tr>
</tbody>
</table>

Table 5.1-8, *Expansion Area Growth Compared to Existing Conditions*, compares the Expansion Area’s housing, population, and employment growth to existing conditions within the Expansion Area. As indicated in Table 5.1-8, buildout of the Expansion Area in accordance with the General Plan would increase the area’s existing housing stock and population by approximately 36 percent, and employment by approximately 240 percent (16,563 jobs). Table 5.1-8 also compares the Expansion Area’s housing, population, and employment growth to existing conditions within the City. Buildout of the Expansion Area in accordance with the General Plan would increase the City’s existing housing stock and population by approximately 4.0 percent, and employment by approximately 47 percent. Therefore, buildout of the Expansion Area in accordance with the General Plan would induce population growth in the Expansion Area and City.

**Table 5.1-8**

**Expansion Area Growth Compared to Existing Conditions**

<table>
<thead>
<tr>
<th>Description</th>
<th>Housing (Dwelling Units)</th>
<th>Population (Persons)</th>
<th>Employment (Jobs)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion Area (EA) Growth</td>
<td>1,732</td>
<td>6,133²</td>
<td>16,563</td>
</tr>
<tr>
<td>EA 2010 Existing</td>
<td>4,847</td>
<td>17,163²</td>
<td>6,916</td>
</tr>
<tr>
<td>EA Buildout</td>
<td>6,579</td>
<td>23,296</td>
<td>23,479</td>
</tr>
<tr>
<td>EA Growth : EA 2010 Existing % Change</td>
<td>+35.7%</td>
<td>+35.7%</td>
<td>+239.5%</td>
</tr>
<tr>
<td>City 2010 Existing</td>
<td>46,605³</td>
<td>152,622³</td>
<td>35,059</td>
</tr>
<tr>
<td>EA Growth / City Total</td>
<td>48,337</td>
<td>158,755</td>
<td>51,622</td>
</tr>
<tr>
<td>EA Growth : City 2010 Existing % Change</td>
<td>+3.7%</td>
<td>+4.0%</td>
<td>+47.2%</td>
</tr>
</tbody>
</table>

1. Refer to Table 5.1-7.
2. Based on 100 percent occupancy of the DU and 3.541 persons per household (CA DOF).
Potential growth inducing impacts are also assessed based on a project’s consistency with adopted plans that have addressed growth management from a local and regional standpoint. Table 5.1-9, *Expansion Area Growth Compared to SOC and SCAG Forecasts*, compares the Expansion Area’s housing, population, and employment growth to the SOC’s and SCAG’s housing, population, and employment forecasts for the City.

Table 5.1-9
Expansion Area Growth Compared to SOC and SCAG Forecasts

<table>
<thead>
<tr>
<th>Description</th>
<th>Housing (Dwelling Units)</th>
<th>Population (Persons)</th>
<th>Employment (Jobs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion Area (EA) Growth</td>
<td>1,732</td>
<td>6,133</td>
<td>16,563</td>
</tr>
<tr>
<td>City (2010 Existing)¹</td>
<td>46,605</td>
<td>152,622</td>
<td>35,059</td>
</tr>
<tr>
<td>EA / City Total</td>
<td>48,337</td>
<td>158,755</td>
<td>51,622</td>
</tr>
<tr>
<td>City SOC Forecasts (Buildout)²</td>
<td>136,934</td>
<td>487,485</td>
<td>611,113</td>
</tr>
<tr>
<td>EA/City : SOC Difference</td>
<td>88,597</td>
<td>328,730</td>
<td>559,491</td>
</tr>
<tr>
<td>EA/City : SOC % Difference</td>
<td>64.7%</td>
<td>67.4%</td>
<td>91.6%</td>
</tr>
<tr>
<td>City SCAG Forecasts (2035)³</td>
<td>97,929</td>
<td>346,767</td>
<td>47,108</td>
</tr>
<tr>
<td>EA/City : SCAG Difference</td>
<td>45,592</td>
<td>188,012</td>
<td>4,514</td>
</tr>
<tr>
<td>EA/City : SCAG % Difference</td>
<td>50.6%</td>
<td>54.2%</td>
<td>9.58%</td>
</tr>
</tbody>
</table>


The GPEIR forecasts the City’s housing stock will total 139,205 DU and population will total 441,280 persons at buildout. Considering the General Plan Amendments, since preparation of the GP/GPEIR, the SOC forecasts the City’s housing stock would total 136,934 DU and population will total 487,485 persons at buildout. Upon buildout of the Expansion Area, the City’s population would total 158,755 persons, or approximately 67 percent less than the SOC’s forecast buildout population of 487,485 persons. Population and housing growth within the Expansion Area was considered in the GPEIR/SOC forecasts, since their forecasts are based on the General Plan and future development within the Expansion Area would occur in accordance with the Land Use Plan. The proposed project does not involve an amendment to the Land Use Element (Land Use Plan). Given buildout of the Expansion Area would occur in accordance with the Land Use Plan and the City’s GPEIR/SOC buildout population forecasts would not be exceeded, project implementation would be consistent with GPEIR/SOC growth forecasts. Additionally, the City’s General Plan accounts for the increased growth and proposes policies to reduce potential growth-related impacts associated with the proposed project. Further, the project’s anticipated population growth would occur over a 25-year period, allowing for development of necessary services and infrastructure to accommodate the proposed growth.

SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts for local Los Angeles County governments, among other counties. SCAG provides population household projection estimates in five-year increments from 2005 to 2035. SCAG forecasts that the City’s population will reach 346,767 persons by 2035. Upon buildout of the Expansion Area (in accordance with the General Plan), the City’s
population would total 158,755 persons, or approximately 54 percent less than SCAG’s forecast population of 346,767 persons. Buildout of the Expansion Area was considered in SCAG forecasts, since forecasts are based on the General Plan and the future development within the Expansion Area would occur consistent with the General Plan. As such, population growth within the City was anticipated by SCAG. Implementation of the proposed project would be consistent with SCAG growth forecasts.

Extension of Roads or Other Infrastructure

The following projects and programs proposed within the Expansion Area would involve infrastructure and transportation improvements:

- Infrastructure Improvements would involve replacing and upgrading infrastructure to support existing and future development. Potential improvements include street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, and streetscape, among others.

- Transportation Improvements would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.

Existing roads and infrastructure would be improved/modified within the proposed Expansion Area. Roads and other infrastructure would not be extended into undeveloped areas. The City would construct or require construction of roads and transportation facilities in conformance with the City’s Circulation Plan (General Plan Exhibit C-4). Additionally, as discussed in detail in Sections 5.11 through 5.19 and the Initial Study (Appendix A), the Expansion Area is currently served by a network of utilities and service systems (i.e., water, wastewater, storm drains, electricity, natural gas, communications, roadways, and other infrastructure). Although, portions of the Expansion Area may presently be inadequately served, the proposed improvements/modifications to the infrastructure would occur within the already urbanized Expansion Area.

Overall, buildout of the Expansion Area would induce population growth in the City. However, this population growth would be consistent with General Plan, SOC, and SCAG growth forecasts, since buildout of the Expansion Area would occur in accordance with the General Plan. Additionally, the future development would be subject to compliance with the GPEIR Mitigation Measures and Policies outlined below, which would address the potential growth-inducing impacts. In conjunction with the approval of any development project, the City would be required to find that such project is in conformance with all applicable General Plan Policies and Maps. Therefore, the proposed project would result in less than significant impacts involving population growth.

Mitigation Programs:

GPEIR Mitigation Measures and Policies:

Policy L1.1.2: Provide incentives to promote infill development, in order to foster more cohesive neighborhoods, maximize use of infrastructure, consolidate development patterns and enhance community appearance.
Policy L2.1.2: Adopt comprehensive land use documents to designate areas for business and industrial users, such as specific plans, which will simplify environmental and development review processes for new businesses and ensure coordinated infrastructure planning.

Policy L2.1.3: Adopt strategies to provide opportunities for a wide range of business needs, including start up, expansion, and relocation.

Policy L2.1.6: Consider the jobs/housing balance in evaluating new development proposals.

Policy L2.3.1: Based upon existing development patterns within the core area of Palmdale, designate a special development area consisting of the incorporated areas generally bounded by Avenue Q, Antelope Valley Freeway, Avenue R and 35th Street East excluding specific plan areas. Within this area, promote economic development through a variety of means including but not limited to the following:

1. Promote reduction of vacancy rates in existing structures by adopting development standards consistent with those used when the area was constructed, which may include but not be limited to parking, setback, landscaping and architectural requirements.

2. Encourage infill development on vacant lots within this area through provision of incentives.

3. Establish sign criteria appropriate for the density of development within this area.

4. Promote development of municipal and administrative functions within the Civic Center area, to provide a focus for downtown businesses.

5. Promote establishment of a transportation facility within the downtown area, serving as a hub for rail, bus and other public transportation systems.

6. Promote outdoor activities within the downtown area to increase the number of people attracted to the area.

7. Support the rerouting of State Highway 138 to the vicinity of Avenue P-8, so as to remove regional through traffic from downtown streets.

8. Through a coordinated effort of all affected agencies, address areas requiring special attention to prevent blight in the downtown area.

9. Promote shared parking to serve existing businesses and minimize the amount of land in the downtown area devoted to vehicle storage in proportion to that utilized for active businesses.
10. Establish appropriate criteria to permit mixed use developments within the Office Commercial (OC) and Downtown Commercial (C-D) designated portions of the Downtown Revitalization Area.

Policy L3.2.1: Permit a range of residential densities and housing types throughout the City, rather than concentrating higher densities in limited areas.

Policy L3.2.2: Direct the location of senior and multi-family housing to areas accessible to public transportation, supportive commercial uses, and community facilities.

Policy L3.4.3: Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one (1) acre or more.

Policy H1.1.1: Encourage a variety of housing types such as single family attached (townhouses), multifamily units, planned unit developments and other housing types that make housing more affordable.

Policy H1.1.2: Encourage the development of new affordable units through the provision of incentives.

Policy H1.1.3: Encourage the development of housing affordable to lower income groups in areas well served by public transportation, schools, retail and other services.

Policy H1.1.5: Replace housing units demolished by the redevelopment agency for redevelopment projects.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**DEMAND FOR ADDITIONAL HOUSING**

**Threshold:** *Would the project create a significant demand for additional housing?*

**Impact Analysis:** It is anticipated that the properties within the Expansion Area designated Industrial would transition to industrial uses consistent with their existing land use designation, resulting in 347 fewer DU. Additionally, buildout of the Expansion Area could result in an additional 18.9 million square feet of non-residential land uses, with a resultant employment growth of 16,563 jobs. This employment growth could create a demand for housing in the City, because the potential exists that future employees (and their families) would want to relocate to the City. Future development within the Expansion Area in accordance with the General Plan would increase the City’s existing housing stock by 1,732 DU. Additionally, the City’s vacancy rate as of January 2010 is 7.57 percent or 3,527 DU (refer to Table 5.1-2). The 2010 vacancy rates in Lancaster and Santa Clarita, nearby cities, are 8.43 percent (4,188 DU) and 3.16
percent (1,863 DU), respectively.\(^9\) Therefore, the new residential development combined with
the existing vacancies in Palmdale, Lancaster, and Santa Clarita would satisfy the majority of
the housing demand created by the loss of dwellings and new employment. Project
implementation would result in a less than significant impact involving the demand for additional
housing. Moreover, it is the City’s goal to promote the construction of new housing affordable to
all income groups (Goal H1). To this end, the City would provide adequate sites throughout the
City at a range of densities to accommodate future housing needs (Objective H1.1.1). All future
residential development within the Expansion Area would be subject to compliance with the
Policies outlined below, in furtherance of the City’s Goal and Objective.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to GPEIR Policy L3.2.1, Policy L3.2.2, Policy
L3.4.3, Policy H1.1.1, Policy H1.1.2, Policy H1.1.3, Policy H1.1.5, and the following:

- **Policy L3.6.2:** Promote development of pro-active property maintenance and community
  appearance programs including greater emphasis on volunteer efforts.

- **Policy L3.6.3:** Support community groups and homeowners’ associations to assist in
  community maintenance programs.

- **Policy H8.1.3:** Encourage mixed use housing in designated areas along transportation
  corridors and other commercial strips.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance
with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.1.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

**BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVE IMPACTS INVOLVING THE CITY’S POPULATION, DEMAND FOR ADDITIONAL HOUSING, AND/OR DISPLACEMENT OF PEOPLE.**

**Impact Analysis:** Potential cumulative impacts associated with population, housing, and
employment resulting from full implementation of the Palmdale General Plan, as well as its
neighboring city and unincorporated areas, were evaluated in GPEIR Section 8.8 (Cumulative
Impacts) (pages 8-8 and 8-9). The GPEIR concluded the Palmdale General Plan would accommodate approximately 139,205 DU at buildout with a population of 441,280 persons. Related project would not contribute to the population increase within Palmdale, but would

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increase the Antelope Valley’s population by approximately 841,673 persons for a cumulative population of 1,282,953 persons in the region. Employment opportunities would increase substantially in the region, as a result of new commercial and industrial development. General Plan buildout and related projects are expected to generate approximately 967,480 jobs at buildout.

In regards to housing, population, and employment growth, the cumulative impacts are analyzed in terms of consistency with SCAG forecasts. The development of an additional 1,732 dwellings is anticipated in the Expansion Area, in accordance with the General Plan, resulting in a potential population growth of approximately 6,133 persons. Upon buildout of the Expansion Area, the City’s forecast population would total 158,755 persons. The GPEIR forecasts the City’s housing stock would total 139,205 DU, with a resultant population of 441,280 persons at buildout. Considering the General Plan Amendments, since preparation of the GP/GPEIR, the SOC forecasts the City’s housing stock would total 136,934 DU, with a resultant population of 487,485 persons at buildout. Population/housing growth within the Expansion Area was considered in both the GPEIR and SOC forecasts, since their forecasts are based on the Land Use Plan and future development within the Expansion Area would occur in accordance with the Land Use Plan. The proposed project does not involve an amendment to the Land Use Plan. Given buildout of the Expansion Area would occur in accordance with the Land Use Plan and the GPEIR/SOC buildout population forecasts would not be exceeded, project implementation would be consistent with GPEIR/SOC growth forecasts.

As indicated in Table 5.1-9, SCAG forecasts the City’s housing stock will increase to 97,929 DU by 2035, with a resultant population of 346,767 persons. Buildout of the Expansion Area was considered in SCAG forecasts, since SCAG forecasts are based on the General Plan and buildout of the Expansion Area would be consistent with GPEIR/SOC growth forecasts (development would occur in accordance with the Land Use Plan and the GPEIR/SOC buildout population forecasts would not be exceeded). Project implementation would not significantly alter subregional or regional growth rates projected by SCAG. Therefore, project implementation would not result in cumulatively considerable housing, population, and employment impacts.

Mitigation Programs:

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.1.7 SIGNIFICANT UNAVOIDABLE IMPACTS

The housing, population, and growth impacts associated with project implementation would be less than significant.
5.2 Transportation and Circulation
5.2 TRANSPORTATION AND CIRCULATION

5.2.1 INTRODUCTION

The purpose of this section is to evaluate development of the proposed project with respect to traffic and circulation. The evaluation considers impacts on local roadways and regional transportation facilities. Mitigation measures are recommended, if necessary, to avoid or lessen project impacts on traffic and circulation.

This section is based upon the following resources:

- City of Palmdale General Plan Circulation Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993);
- City of Palmdale State of the City Report (SOC) (Impact Sciences, Inc., June 2009); and
- Various transit services websites, including the Antelope Valley Transit Authority (AVTA), the Palmdale Transportation Center (PTC), and the Metrolink websites.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with traffic and circulation as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.9 (Traffic and Circulation) (pages 4-115 through 4-145).

Preparation of the GP/GPEIR involved an analysis of Palmdale's roadway system and development of a circulation plan utilizing a computerized traffic model. The process used to develop the model is discussed in detail in the Circulation Element. The model was run to predict traffic volumes at buildout of the land uses permitted by the Land Use Element. The model was also run assuming that various trip reduction (Transportation Demand Management, or TDM) measures were adopted throughout the City. TDM measures reduce the total number of vehicle trips at peak hours by promoting public transit, ridesharing, flexible working schedules, telecommuting, and similar methods. The model was run using the existing Circulation Plan network and a revised (i.e., proposed) network.

GPEIR Exhibit 4-1 (Circulation Plan) illustrates the proposed future roadway network for the City's Planning Area. The proposed Circulation Plan was developed to accommodate growth projected under the proposed Land Use Plan. Development of the Circulation Plan assumes implementation of a citywide TDM Program. The proposed Circulation Plan includes standards...
for the various roadway classifications (refer to GPEIR Exhibit 4-2 [Standard Street Sections]) and roadway capacities, levels of service, and provisions for turn lanes and parking. Additionally, the plan encourages the use of non-vehicular modes of transportation. The assumed roadway improvements are discussed in detail in GPEIR Section 4.2.9 (Traffic and Circulation).

The estimated number of trips generated from General Plan buildout is presented in GPEIR Table 4-12 (Existing and Buildout Land Use Trip Generation). As indicated in GPEIR Table 4-12, the GPEIR concluded that the proposed Land Use Plan is forecast to generate a total of 3,528,026 ADT at buildout. This forecast traffic volume is based upon projected development permitted by the Land Use Element and typical land use densities.

GPEIR Table 4-13 (Level of Service Analysis Future Volumes on Modified General Plan Network With TDM Measures), presents the results of the LOS analysis for the future roadway network at buildout of the proposed Land Use Plan. As indicated in GPEIR Table 4-13, the GPEIR concluded the majority of the study area roadways would operate at an acceptable LOS (C or better) under future buildout conditions. The GPEIR concluded a total of 11 roadway segments within the General Plan study area would operate at LOS D or worse under future buildout conditions. The GPEIR concluded a significant and unavoidable impact would occur involving these roadway segments, despite implementation of a citywide TDM Program, the assumed improvements, and compliance with Circulation Element Policies.

Intersection capacities in the new Circulation Plan at land use buildout were also analyzed in the GPEIR. The GPEIR concluded that although, the increased capacity of the new Circulation Plan would improve overall intersection traffic operations at buildout, it is anticipated that some General Plan study area intersections would operate beyond LOS D. The Circulation Element further concluded unacceptable levels of congestion are likely to occur without further specific capacity improvements at intersections or reduction of traffic demand through aggressive local TDM measures.

### 5.2.2 EXISTING CONDITIONS

#### STREET AND HIGHWAY SYSTEM

The City's roadway system consists of a wide range of transportation facilities, which serve two basic functions: mobility and land access. A circulation network is composed of facilities that emphasize mobility or access to different degrees. The following types of facilities are typically defined:

- **Freeway**: Mobility with very limited access.
- **Expressway**: Mobility with more frequent access to arterial streets than a freeway, but no direct land access.
- **Arterial**: Mobility with access to collectors, some local streets and major traffic.
- **Collector**: Connects local streets with arterials and also provides access to adjacent land uses; thus balancing mobility with access.
- **Local**: Provides access to adjacent land uses exclusively.
Street and highway systems are designed in the above manner as a means of achieving the goals of mobility and access in an efficient manner.

**CIRCULATION SYSTEM**

The City is located approximately 60 freeway miles north of Los Angeles. Regional access to the project area is provided via the Antelope Valley Freeway (State Route 14 [SR-14]), which extends north to Kern County and south to the San Fernando Valley. Additional arterials providing regional access to the project area are Palmdale Boulevard, Elizabeth Lake Road, Pearblossom Highway (SR-138), and Sierra Highway. The City’s existing roadway network and functional classification system are illustrated in Exhibit 5.2-1, *Circulation System*.

**ANALYSIS METHODOLOGY**

The capacity of a roadway is affected by various factors including the street's width, the number of crossing arterials and collectors, the amount of green time given to the street at each signal, the presence or absence of on-street parking, the number of turning lanes at each intersection, and the number of driveways.

Level of service (LOS) is commonly used as a qualitative description of roadway operation and is based on the capacity of the roadway and the volume of traffic using the roadway; refer to Table 5.2-1, *Level of Service Interpretation*. LOS E reaches the ultimate capacity of the street and is considered to be the maximum acceptable operating condition.

<table>
<thead>
<tr>
<th>LOS</th>
<th>V/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0 - 0.60</td>
</tr>
<tr>
<td>B</td>
<td>0.61 - 0.70</td>
</tr>
<tr>
<td>C</td>
<td>0.71 - 0.80</td>
</tr>
<tr>
<td>D</td>
<td>0.81 - 0.90</td>
</tr>
<tr>
<td>E</td>
<td>0.91 - 1.00</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 1.00</td>
</tr>
</tbody>
</table>

*Source: City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 3-18 (Level of Service Interpretation), February 1, 1993.*

**PERFORMANCE CRITERIA**

The City’s target for peak hour roadway operations is LOS C or better, as specified in the Circulation Element:

*Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.*
ENVIRONMENTAL IMPACT REPORT
EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

Circulation System

Exhibit 5.2-1
Policy C1.4.2: Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service or LOS C, whichever is less, and other performance characteristics applicable to the affected roadways.

TRIP GENERATION

The average daily trips (ADT) generated by the City’s existing land uses, as determined by the SOC, are presented in Exhibit 5.2-2, Existing ADT. The traffic volumes shown on Exhibit 5.2-2 are two-way weekday counts.

The estimated number of trips generated from the existing Expansion Area land uses is summarized in Table 5.2-2, Expansion Area Existing Land Use Trip Generation. As indicated in Table 5.2-2, the project area’s existing land uses generate an estimated 71,353 ADT. This estimate is based on the daily trip rates outlined in Table 5.2-2 and typical land use densities.

Table 5.2-2
Expansion Area Existing Land Use Trip Generation

<table>
<thead>
<tr>
<th>Land Use/ITE Code</th>
<th>Unit</th>
<th>Expansion Area Existing Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Units</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family (210)</td>
<td>Dwellings</td>
<td>3,419</td>
</tr>
<tr>
<td>Multiple-Family (220)</td>
<td></td>
<td>1,428</td>
</tr>
<tr>
<td>Subtotal Residential</td>
<td></td>
<td>4,847</td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial² – Specialty Retail (814)</td>
<td>Thousand Square Feet</td>
<td>120.16</td>
</tr>
<tr>
<td>Commercial² – High-Turnover Restaurant (932)</td>
<td></td>
<td>40.05</td>
</tr>
<tr>
<td>Industrial (110)</td>
<td>Thousand Square Feet</td>
<td>483.27</td>
</tr>
<tr>
<td>Institutional³ (560)</td>
<td></td>
<td>107.85</td>
</tr>
<tr>
<td>Plant 42⁴</td>
<td></td>
<td>7,063.51</td>
</tr>
<tr>
<td>Public Facility⁵ (495)</td>
<td>Thousand</td>
<td>7.5</td>
</tr>
<tr>
<td>Schools⁵</td>
<td></td>
<td>Student</td>
</tr>
<tr>
<td>High School (530)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School (522)</td>
<td></td>
<td>0.721</td>
</tr>
<tr>
<td>Elementary School (520)</td>
<td></td>
<td>2.70</td>
</tr>
<tr>
<td>Subtotal Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Institute of Transportation Engineers (ITE) Trip Generation (8th Edition, 2008).
2. Assumes 25% of total Commercial is High-Turnover Restaurant and the remainder is Specialty Retail.
3. Utilizes weekday trip rate for church, since analysis addresses weekday conditions.
4. Plant 42 ADT Rate is based on 7,860 existing ADT (GPEIR Table 4-12) and 5,260 acres confirmed by City.
5. This use has been identified as the Former Senior Center. The trip rate for Recreational Community Center is utilized for analysis purposes.
Legend:

- Average Daily Volumes
- No Counts Available
- 1 - 4,999
- 5,000 - 9,999
- 10,000 - 19,999
- 20,000 - 29,999
- 30,000 - 39,999
- 40,000 - 49,999
- 50,000 - 59,999
- 60,000 - 100,000
- Streams & Rivers
- Lakes/Water Features
- Palmdale City Limits

Source: City of Palmdale State of the City, June 2009.
OPERATING CONDITIONS

Existing Roadway LOS

SOC Table 6.0-1 (Roadway Segment Operation Existing Conditions) presents the roadway capacity analysis for the major and minor arterials in the General Plan study area, including the number of lanes, capacity, traffic volumes (i.e., average daily traffic [ADT]), volume/capacity ratio, and LOS. As indicated in SOC Table 6.0-1, the majority of the study area roadways operate at an acceptable LOS (C or better). SOC Table 6.0-2 (Roadway Segments Operating Below LOS C) outlines the roadways and segments operating below LOS C and indicates a total of 14 roadways (46 segments) studied operate at LOS D or worse at peak hour. Of the 14 roadways, eight roadways (24 segments) that operate at LOS D or worse at peak hour are located within the Expansion Area or in its vicinity; refer to Table 5.2-3, Expansion Area Roadway Segments Operating Below LOS C – Existing Conditions.

Table 5.2-3
Expansion Area Roadway Segments Operating Below LOS C – Existing Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th Street West</td>
<td></td>
</tr>
<tr>
<td>Avenue M to Ave N</td>
<td>F</td>
</tr>
<tr>
<td>Ave N to Avenue P</td>
<td>D</td>
</tr>
<tr>
<td>Tierra Subida</td>
<td></td>
</tr>
<tr>
<td>Q-8 Street West to 5th Street West</td>
<td>E</td>
</tr>
<tr>
<td>5th Street West to Rayburn Road</td>
<td>E</td>
</tr>
<tr>
<td>Sierra Highway</td>
<td></td>
</tr>
<tr>
<td>Avenue O to Avenue O-8</td>
<td>D</td>
</tr>
<tr>
<td>Avenue P</td>
<td></td>
</tr>
<tr>
<td>15th Street East to All Mall Driveway</td>
<td>F</td>
</tr>
<tr>
<td>10th Street West to State Route 14</td>
<td>D</td>
</tr>
<tr>
<td>State Route 14 to Fairway Street</td>
<td>D</td>
</tr>
<tr>
<td>Division Street to Sierra Highway</td>
<td>E</td>
</tr>
<tr>
<td>Sierra Highway to Lockheed Way</td>
<td>D</td>
</tr>
<tr>
<td>Lockheed Way to 10th Street East</td>
<td>F</td>
</tr>
<tr>
<td>10th Street East to 15th Street East</td>
<td>E</td>
</tr>
<tr>
<td>20th Street East to 30th Street East</td>
<td>D</td>
</tr>
<tr>
<td>Palmdale Boulevard</td>
<td></td>
</tr>
<tr>
<td>12th Street East to 15th Street East</td>
<td>F</td>
</tr>
<tr>
<td>15th Street East to 25th Street East</td>
<td>F</td>
</tr>
<tr>
<td>Avenue R</td>
<td></td>
</tr>
<tr>
<td>5th Street East to Sierra Highway</td>
<td>E</td>
</tr>
<tr>
<td>Sierra Highway to 17th Street East</td>
<td>D</td>
</tr>
<tr>
<td>Avenue S</td>
<td></td>
</tr>
<tr>
<td>State Route 14 to 5th Street East</td>
<td>F</td>
</tr>
<tr>
<td>5th Street East to Sierra Highway</td>
<td>F</td>
</tr>
<tr>
<td>Sierra Highway to 10th Street East</td>
<td>F</td>
</tr>
<tr>
<td>10th Street East to Casa Verde Drive</td>
<td>F</td>
</tr>
<tr>
<td>Casa Verde Drive to 28th Street East</td>
<td>D</td>
</tr>
<tr>
<td>28th Street East to 40th Street East</td>
<td>E</td>
</tr>
</tbody>
</table>

PUBLIC TRANSIT AND ALTERNATIVE TRAVEL MODES

The following public transit and alternative travel mode information is based upon current available data from the City of Palmdale and associated service providers. Public transit services within the project area are provided by the Antelope Valley Transit Authority (AVTA), Access Paratransit Services, and Tuesday Medical Shuttle.

Antelope Valley Transit Authority

Bus service within the project area is provided by the Antelope Valley Transit Authority (AVTA). AVTA operations include Transit, Commuter, and Dial-A-Ride.

Transit. AVTA runs 40 local transit coaches, each seating 38 to 40 passengers and having two wheelchair positions. They are ramp-equipped and the front steps can be lowered for passengers who have difficulty boarding. Operating hours are from 6:00 a.m. to 11:00 p.m., Monday through Friday, and 7:00 a.m. to 7:00 p.m. on Saturday and Sunday. AVTA provides supplemental routes that operate during peak times. Transfer Centers are located at Lancaster City Park and at the Palmdale Transportation Center; refer to the Palmdale Transportation Center Section below. The public transit routes serving the project area are:

- **Route 1, Lancaster/Palmdale**: Servicing Lancaster Senior Center, all along 10th Street West, Antelope Valley Mall, and Avenue S and 47th Street East in Palmdale. Connects transfers at Lancaster Metrolink Station, Lancaster City Park, and Palmdale Transportation Center.

- **Route 2, Palmdale Boulevard**: Servicing Antelope Valley Mall, 10th Street West, Palmdale Regional Medical Center, Palmdale Boulevard, 40th Street Antelope Valley Medical Center, Avenue R, and 47th Street East, with connections to Route 3 at 47th Street and Avenue S, and Antelope Valley Mall.

- **Route 3, Palmdale - Avenue R**: Servicing Antelope Valley Mall, Avenue P, 10th Street West, Avenue R, 40th Street East, and Avenue S, with connections to Route 2 at Antelope Valley Mall and 47th Street and Avenue S.

- **Route 8, University of Antelope Valley**: Monday to Friday only. Servicing the University of Antelope Valley, Sierra Highway, Avenue K, 10th Street West, Lancaster City Park, Avenue K-8, 30th Street West, Antelope Valley College, and Avenue J.

- **Route 9, Eastside Palmdale - Sun Village**: Servicing Avenue Q, 40th Street East, AV Medical Center, 47th Street East, 60th Street East, 70th Street East and Pete Knight High School, with connections at 47th and Avenue S, and Palmdale Transportation Center.

- **Supplemental Routes**: AVTA operates supplemental/deviated routes during the traditional school year to accommodate increased student ridership on routes that serve Highland High School (Route 97), Eastside High School, Antelope Valley High School (Route 94), and Littlerock High School (Route 99).
Commuter. AVTA runs three commuter routes. The commuter routes serving the project area are:

- **Route 785/Downtown Los Angeles**: Servicing Lancaster/Palmdale to Los Angeles, Monday through Friday only.
- **Route 786/West Los Angeles**: Servicing Lancaster/Palmdale to Century City/West Los Angeles, Monday through Friday only.
- **Route 787/San Fernando**: Servicing Lancaster/Palmdale to West San Fernando Valley, Monday through Friday only.

Additionally, the AVTA picks up commuters at the Palmdale Transportation Center on 6th Street East and Technology Drive; refer to the *Palmdale Transportation Center* Section below.

**Dial-A-Ride.** Dial-A-Ride (DAR) provides curb-to-curb van service for seniors over the age of 65 and disabled residents of the Antelope Valley. AVTA DAR provides rides for people who are 65 years of age or older, or who are certified as eligible for Para-transit services under the rules listed in the Eligibility Application. DAR is intended to fill transportation gaps between local, fixed route transit and Americans with Disabilities Act (ADA) mandated paratransit services, which are provided by Access Paratransit Services.

**Other Services**

**Access Services.** This service serves the disabled as a “complementary paratransit service” in accordance with the Americans with Disabilities Act. Access Services, a local public entity, is the Los Angeles County Consolidated Transportation Services Agency (“CTSA”) and administers the Los Angeles County Coordinated Paratransit Plan (“Plan”) on behalf of the County’s 43 public fixed route operators (i.e., bus and rail). Pursuant to the Plan, Access facilitates the provision of complementary ADA paratransit services to certain persons with disabilities. Paratransit is an alternative mode of flexible passenger transportation that does not follow fixed routes or schedules. Typically, vans or mini-buses are used to provide paratransit service, but also shared taxis and jitneys are important providers as a form of transportation.

**Tuesday Medical Shuttle.** This service offers rides to nine major medical facilities in the Los Angeles basin and San Fernando Valley.

**Palmdale Transportation Center**

The Palmdale Transportation Center (PTC) provides a state-of-the-art transportation facility located within the project area, at 39000 Clock Tower Plaza Drive. This regional multi-modal hub offers connections between AVTA local and commuter bus service, Metrolink commuter rail service, Santa Clarita Transit, Greyhound bus service, and Amtrak Throughway bus service. There are eight centrally located bus stops providing convenient connections between regional service providers and local bus routes. The PTC provides an indoor passenger waiting area that includes concessions, public telephones, seating, restrooms, and security service. Metrolink passengers may also utilize partially enclosed outdoor waiting accommodations on the rail platform.
The PTC provides parking for passengers using bus transit or commuter rail service, however, the facility is not a designated park and ride lot. Commuters using vanpools or personal carpools are encouraged to use the park and ride facilities at East Avenue S, West Avenue S, or Pelona Vista Park.

**Metrolink**

The Southern California Regional Rail Authority (SCRRA), a Joint Powers Authority, operates Metrolink, a regional rail system, including commuter and other passenger services, linking communities to employment and activity centers. The Los Angeles County Metropolitan Transportation Authority (Metro) is one of five county transportation planning agencies that make up the SCRRRA/Metrolink. SCRRRA was formed to develop a regional transit service to reduce the congestion on highways and improve mobility throughout the Southern California region.

Metrolink trains serve more than 55 stations in the greater Los Angeles area on several regional lines, including the Antelope Valley Line. Metrolink’s Antelope Valley Line (Los Angeles Union Station to Lancaster) generally runs parallel and east of SR-14, traversing the western portion of the project area. The Antelope Valley Line connects the Antelope Valley and Santa Clarita with downtown Los Angeles and the media districts in Burbank and Glendale. The Line’s average weekday ridership in April 2007 was 7,302 persons. Their average trip length was 41.9 miles. There are 11 stations located along the Antelope Valley Line, including the Palmdale Metrolink Train Station. Owned and operated by the City of Palmdale, the Palmdale Metrolink Station is located at the PTC, as discussed above.

**Bicycle Lanes**

GPEIR Exhibit 3-32 (Existing and Proposed Bikeways) identifies existing and planned bikeways within Palmdale, including the project area. As indicated in GPEIR Exhibit 3-32, there is an existing bikeway along Sierra Highway within the project area. Additionally, there are several adopted master plan routes within or adjacent to the project area, including Avenue M, Avenue P (east of Sierra Highway), Avenue Q, Avenue P-8 (west of Sierra Highway), Avenue R, and 10th and 30th Streets (between Avenue Q and Avenue R).

**Air Force Plant 42**

Air Force Plant 42 (Plant 42), a Production Flight Test Installation, is the largest use within the Expansion Area, encompassing 5,260 acres. AFP 42 is a United States Government Owned, Contractor Operated (“GOCO”) aerospace technology and manufacturing plant comprised of eight separate production sites, specially suited for advanced technology. The aerospace contractors at Plant 42 share a common runway complex comprised of two active 12,000-foot runways.

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In 1989, the City of Los Angeles’ Los Angeles World Airports (LAWA) department and the U.S. Air Force (USAF) entered an agreement concerning commercial use of Plant 42’s facilities and land. The agreement permits a maximum of 400 commercial flights per day. Between the 1990s and 2008, various airlines intermittently used the Palmdale Regional Airport terminal site on Plant 42 for civilian use. The last flights were suspended in December 2008.

5.2.3 REGULATORY FRAMEWORK

CONGESTION MANAGEMENT PLAN

Pursuant to Proposition 111, every county in California is required to develop a Congestion Management Program (CMP) that examines the relationships between land use, transportation, and air quality. The CMP addresses the impact of local growth on the regional transportation system. Proposition 111 also established a nine percent per gallon gas tax, staged over a five-year period, for the purpose of funding transportation-related improvements statewide. In order to be eligible for the revenues associated with Proposition 111, the CMP legislation (originally AB 471, amended by AB 1791) requires that a CMP be developed, adopted, and updated biennially for every county that includes an urbanized area and shall include every city and the county government within that county. Statutory elements of the CMP include Highway and Roadway System monitoring, multi-modal system performance analysis, the Transportation Demand Management Program, the Land Use Analysis Program, and local conformance for all the county’s jurisdictions.

As the Congestion Management Agency for Los Angeles County, the Los Angeles County Metropolitan Transportation Authority (Metro) is responsible for implementing Los Angeles County’s CMP. Metro serves as Los Angeles County’s transportation planner and coordinator, designer, builder and operator. Metro adopted its most recent CMP in 2008.

The goal of the CMP is to promote a more coordinated approach to land use and transportation decisions. The law requires that the traffic generated by individual development projects be analyzed for potential impacts to the regional roadway system. According to the CMP, projects which meet the following criteria are required to be evaluated:

All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).

- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The Antelope Valley Freeway (State Route 14) and Palmdale Boulevard (State Route 138) located near the project area are designated in the Los Angeles County CMP.
CITY OF PALMDALE GENERAL PLAN

Circulation Element

The General Plan Circulation Element provides a blueprint for construction and maintenance of a transportation network, which will accommodate growth, support economic development, allow safe and convenient access, and meet regional transportation goals. The City’s road network is based upon projected development permitted by the Land Use Element. The Element addresses the City’s plans to upgrade and expand its pedestrian walkways, surface streets, arterial and regional highways, public transportation, rail service, and air service. The Circulation Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

Parks, Recreation, and Trails Element

The General Plan Parks, Recreation, and Trails Element serves as a guide to future development of multi-use trails and bikeways, among other facilities. The Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

CITY OF PALMDALE MUNICIPAL CODE

Various sections of the City of Palmdale Municipal Code (PMC) include regulations and standards pertaining to transportation and parking.

PMC Chapter 3.40, Traffic Impact Fee Requirements

PMC Chapter 3.40 concludes that employees and residents associated with new residential and nonresidential development in Palmdale would create an increased need for transportation facilities. Sources of City revenue other than traffic impact fees, including tax revenues, which will be paid by new residential and nonresidential development, will be needed for many public purposes and therefore will not be sufficient to offset the burdens on transportation facilities created by new residential and nonresidential development.

It is the intent of the City to require every person or organization that develops land to mitigate the impacts of that development on the City’s transportation system. Therefore, the City requires developers to mitigate traffic impacts caused by their development or to pay a traffic impact fee that will be used to mitigate those impacts by constructing transportation facilities pursuant to the most current transportation facilities plan.

PMC Section 3.40.020, Residential Traffic Impact Fees Required. Except as provided in PMC Section 3.40.040, the required traffic impact fee for a residential building shall be paid, in an amount established by resolution of the City Council, prior to or on the date of the final Building Department inspection of the building, or the date the Certificate of Occupancy is issued, whichever occurs first. If the residential development contains more than one dwelling, the traffic impact fee may be paid on a lump-sum basis when the first dwelling in the development
or development phase receives its final inspection or certificate of occupancy, whichever occurs first.

PMC Section 3.40.030, Nonresidential Traffic Impact Fees Required. Except as provided in
PMC Section 3.40.040, the required traffic impact fee for a nonresidential development shall be
paid, in an amount established by resolution of the City Council, prior to issuance of the
Certificate of Occupancy for that development; provided, however, that if a nonresidential
development project is to be constructed and occupied in phases, and a separate Certificate of
Occupancy will be issued for each phase, payment of the Traffic Impact Fee may be made
separately prior to the issuance of a Certificate of Occupancy for each phase of the
development.

PMc Chapter 16.110, Dedications and Improvements

The subdivider is required to construct all required improvements, both on-site and off-site, in
accordance with the standards approved by City Council ordinance and applicable City
standards as provided by this title. Additionally, the applicant is required to pay all impact fees,
pursuant to the applicable impact fee ordinances, in the amount that is in effect at the time such
fees are due.

Section 66475.1, the subdivider of any map which contains 200 or more parcels shall dedicate
such additional land as may be necessary to construct any bicycle paths, as shown in the City’s
Parks, Recreation, and Trails Element or as required by the Planning Commission as a
condition of approval of the tentative map, which are within or adjacent to the unit of land to be
subdivided.

CITY OF PALMDALE ZONING ORDINANCE

PZO Chapter 8 Article 87, Off-Street Parking

The purpose of this article is to ensure provision of adequate, accessible, secure, properly
lighted, and well maintained and screened off-street parking facilities. Properly provided and
designed parking will facilitate the intended use of the property; reduce traffic congestion and
safety concerns; protect the neighborhoods from the effects of vehicular noise and traffic
generated by adjacent nonresidential land use district; assure maneuverability of emergency
vehicles; and provide a positive visual experience.

Every use of land or property shall provide adequate parking facilities in conformance with the
requirements of this Article and other provisions of this Zoning Ordinance. Off-street parking
shall be provided for the various land uses in the quantities specified in Zoning Ordinance
Section 87.03 Number of Parking Spaces Required.

5.2.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted
by the City of Palmdale in its environmental review process, and is contained in Appendix A of
this EIR. The Initial Study includes questions relating to transportation and circulation. The
issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in an increase in the estimated number of average daily vehicle trips, and a.m. and p.m. peak hour trips, generated by the proposed project.

- Cause a reduction in Level of Service at an intersection or on a street segment.

- Prevent the safe and orderly flow of people and vehicles, including emergency vehicles; refer to Section 8.0, Effects Found Not to be Significant.

- Create or experience access problems as designed, or create any obstruction to the safe flow of traffic; refer to Section 8.0, Effects Found Not to be Significant.

- Result in a significant alteration to rail or air traffic; refer to Section 8.0.

- Create a significant shortage of parking; refer to Section 8.0.

- 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.

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

**Performance Criteria**

As previously noted, the City’s target for peak hour intersection and roadway operations is LOS C or better according to the Circulation Element:

*Policy C1.4.1:* Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

*Policy C1.4.2:* Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service or LOS C, whichever is less, and other performance characteristics applicable to the affected roadways.

Thresholds for the determination of significant traffic impacts used during the environmental review of individual projects include:\(^2\)

\(^2\) City of Palmdale, *Final Program EIR for the City of Palmdale General Plan*, February 1, 1993, Page 4-134.
Traffic generation by a project will be considered significant if it will result in an intersection or roadway segment operating beyond LOS D; and

Traffic generated by a project will be considered significant if it causes an increase in traffic volumes at an intersection or roadway segment, which is already operating at beyond LOS D.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.2.4 IMPACTS AND MITIGATION MEASURES

TRAFFIC VOLUMES AND LEVELS OF SERVICE

Thresholds:

What is the estimated number of average daily vehicle trips, and a.m. and p.m. peak hour trips, generated by the proposed project?

Would the project cause a reduction in Level of Service at an intersection or on a street segment?

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 and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways.

Impact Analysis:

FUTURE TRAFFIC VOLUMES

The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Development of land uses within the Expansion Area would be pursuant to that permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the Expansion Area, project implementation could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

The forecast number of trips generated at buildout of the Expansion Area in accordance with the General Plan is presented in Table 5.2-4, Expansion Area Buildout Land Use Trip Generation. As indicated in Table 5.2-4, buildout of the Expansion Area in accordance with the General Plan
is forecast to generate an estimated 301,522 ADT. This represents an increase of approximately 323 percent (230,168 ADT) over the area’s existing ADT. This forecast traffic volume is based upon projected development permitted by the Land Use Element and typical land use densities.

Table 5.2-4
Expansion Area Buildout Land Use Trip Generation

<table>
<thead>
<tr>
<th>Land Use/ITE Code</th>
<th>Unit</th>
<th>Expansion Area Buildout</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units</td>
<td>ADT Rate</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family (210)</td>
<td>3,760</td>
<td>9.57</td>
</tr>
<tr>
<td>Multiple-Family (220)</td>
<td>2,819</td>
<td>6.65</td>
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<tr>
<td>Subtotal Residential</td>
<td>6,579</td>
<td></td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial – Specialty Retail (814)</td>
<td>961.07</td>
<td>44.32</td>
</tr>
<tr>
<td>Commercial – High-Turnover Restaurant (932)</td>
<td>320.36</td>
<td>127.15</td>
</tr>
<tr>
<td>Former Palmdale Business Park³</td>
<td>5,534.00</td>
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</tr>
<tr>
<td>Industrial (110)</td>
<td>11,592.01</td>
<td>6.97</td>
</tr>
<tr>
<td>Institutional⁴ (560)</td>
<td>107.85</td>
<td>9.11</td>
</tr>
<tr>
<td>Plant 42¹</td>
<td>8,063.51</td>
<td>0.00111</td>
</tr>
<tr>
<td>Public Facility⁶ (495)</td>
<td>110.52</td>
<td>22.88</td>
</tr>
<tr>
<td>Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School (530)</td>
<td>1.21</td>
<td>1.71</td>
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<tr>
<td>Middle School (522)</td>
<td>0.98</td>
<td>1.62</td>
</tr>
<tr>
<td>Elementary School (520)</td>
<td>3.66</td>
<td>1.29</td>
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<tr>
<td>Subtotal Non-Residential</td>
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<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Total Existing</strong></td>
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<tr>
<td><strong>Total Over Existing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total % Over Existing</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. 2008 ITE Trip Generation Rates.
2. Assumes 25% of total Commercial is High-Turnover Restaurant and the remainder is Specialty Retail.
3. For analysis purposes, the total ADT is based on the Final Draft Environmental Impact Report for the Palmdale Business Park Center Specific Plan, March 1996, which provides a more conservative trip generation estimate.
4. Utilizes weekday trip rate for church since analysis addresses weekday conditions.
5. Plant 42 ADT Rate is based on Special Generators 7,860 existing ADT (GPEIR Table 4-12) and 5,260 existing acres confirmed by City.
6. For analysis purposes utilizes trip rate for Recreational Community Center.

As indicated in GPEIR Table 4-12, the proposed Land Use Plan is forecast to generate a total of 3,528,026 ADT at buildout. Traffic volumes resulting from buildout of the Expansion Area were considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan and the project’s forecast traffic volumes are based upon the development permitted by the Land Use Plan. The traffic volumes from buildout of the
Expansion Area would be consistent with the analysis presented in the GPEIR and would result in no greater impacts involving traffic volumes than previously identified.

**FUTURE OPERATING CONDITIONS**

Development within the proposed Expansion Area is forecast to generate an estimated 230,168 ADT, which could cause a reduction in LOS on a street segment. Such a reduction in LOS could conflict with the City’s established target for peak hour roadway operations of LOS C or better; refer to Circulation Element Policies C1.4.1 and C1.4.2. Future development within the Expansion Area in accordance with the General Plan could result in significant traffic impacts, if it would result in an intersection or roadway segment operating at or beyond LOS D or if it causes an increase in traffic volumes at an intersection or roadway segment, which is already operating at or beyond LOS D. The impacts would be dependent upon the specific site locations, intensity of development, and trip distribution characteristics.

As indicated in GPEIR Table 4-13, the GPEIR concluded the majority of the study area roadways would operate at an acceptable LOS (C or better) under future buildout conditions. The GPEIR concluded nine roadways (14 segments) would operate at LOS D or worse under future buildout conditions. The GPEIR concluded a significant and unavoidable impact would occur involving these roadway segments, despite implementation of a citywide TDM Program, the assumed improvements, and compliance with Circulation Element Policies. Intersection capacities in the new Circulation Plan at General Plan buildout were also analyzed in the GPEIR. Although, the increased capacity of the new Circulation Plan would improve overall intersection traffic operations at buildout, the GPEIR anticipated that some intersections, including within the Expansion Area, would operate beyond LOS D. The Circulation Element further concluded unacceptable levels of congestion are likely to occur without further specific capacity improvements at intersections or reduction of traffic demand through aggressive local TDM measures.

The SOC summarizes General Plan buildout statistics as updated to reflect annexations and development proposals that involved General Plan Amendments, since preparation of the GP/GPEIR. Table 6.0-6 (Roadway Segment Analysis General Plan Buildout Comparison With 1993 General Plan Buildout) provides the predicted operating condition of roadway segments. As indicated in SOC Table 6.0-6, eight roadways (24 segments) within the General Plan study area would operate at LOS D or worse at General Plan buildout. This assumes that all roadways are constructed to full General Plan Circulation Element standards. Depending on the roadway under consideration, these improvements could include an increase in the number of through lanes, additional turning lanes, channelization of various intersections, computerized traffic signal coordination measures, etc. The SOC predictions, which take into consideration the changes that have occurred between 1993 (when the General Plan was prepared) and 2009 (when the SOC was prepared), are generally similar to the predictions featured in the GPEIR.

Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR and SOC analyses, since these assumed additional development within the area consistent with the Land Use Plan, and the project’s impacts upon roadway and intersection LOS are a factor of the anticipated development’s forecast traffic volumes, which are based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analyses presented in the GPEIR and SOC, and would result in no greater impacts to roadway or intersection LOS than previously identified. Moreover, the following
projects and programs proposed by the Redevelopment Plan would involve infrastructure and transportation improvements within the Expansion Area that would further improve the area’s traffic and circulation.

- **Infrastructure Improvements** would involve replacing and upgrading infrastructure to support existing and future development. Potential improvements include street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, and streetscape, among others.

- **Transportation Improvements** would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.

It is the City’s goal to establish, maintain, and enhance a system of streets and highways, which would provide for the safe and efficient movement of people and goods throughout the Planning Area, while minimizing adverse impacts on the community (Goal C1). To this end, the City has adopted and implemented a street and highway plan designed to meet existing and future circulation needs. Additionally, the City maintains and expands the arterial and regional roadway system to serve existing and future circulation needs. The City’s goals, policies, and objectives for development of a transportation system that would meet future community needs are implemented through its Circulation Plan and Traffic Model. The City constructs or requires construction of roads and transportation facilities in conformance with the Circulation System; refer to Exhibit 5.2-1. The City also regularly updates the Roadway Network and coordinates it with the Land Use Plan, to ensure provision of transportation facilities adequate to support permitted land uses throughout the study area. Additionally, the City maintains the Traffic Model on an ongoing basis to reflect changing conditions, as road improvements are constructed and new development takes place.

The City would conduct environmental review of new development proposals and City-initiated capital improvements, to ensure that traffic and transportation-related impacts are mitigated to a level of insignificance wherever feasible. Through its review of development proposals, the City would require right-of-way dedications and street improvements (including but not limited to widening, paving, turn lanes, intersection improvements and traffic control devices) as conditions of approval, based upon needs generated by the development. Future development proposals would be required to prepare a Traffic Impact Analysis, in order to evaluate existing conditions, determine a development’s impacts on roadway segments/intersections, and recommend the necessary mitigation/improvements (refer to Mitigation Measure TR-1 below). Future development within the proposed Expansion Area would also be subject to compliance with PMC Chapter 3.40 (Traffic Impact Fee Requirements). PMC Chapter 3.40 concludes that employees and residents associated with new residential and nonresidential development in Palmdale would create an increased need for transportation facilities. Pursuant to PMC Chapter 3.40 (Traffic Impact Fee Requirements), development proposals are required to mitigate the impacts of that development on the City’s transportation system. Developers are required to mitigate traffic impacts caused by their development or to pay a traffic impact fee that will be used to mitigate those impacts by constructing transportation facilities pursuant to the most current transportation facilities plan.
Finally, all future development within the Expansion Area would be subject to compliance with the General Plan Policies outlined below, which would ensure that adequate transportation facilities are available to meet the demands created by the new development. With implementation of Mitigation Measure TR-1, and continued compliance with PMC requirements and GPEIR Mitigation Measures and Policies, the proposed project would result in less than significant impacts involving traffic volumes, and roadway and intersection LOS.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy C1.1.3: Develop and maintain a computer traffic model based upon the designated network, and assess existing and projected levels of service on streets within the network in making land use decisions and formulating the Land Use Plan.

Policy C1.1.4: Periodically monitor levels of service within the existing street network to identify deficient street segments and intersections, and develop programs to improve service levels where needed.

Policy C1.1.5: Improve the existing street network based upon the adopted Circulation Plan, through implementation of the Capital Improvement Program and through requirements placed upon new development approvals.

Policy C1.1.7: Ensure that right-of-way is reserved wherever possible to implement the adopted Circulation Plan.

Policy C1.1.8: Evaluate all land use decisions to ensure consistency with the Circulation Plan.

Policy C1.1.9: Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.

Policy C1.1.10: Develop and adopt standards regulating where raised medians will be required, and where right-of-way and pavement width may be reduced, based upon existing and approved development, access control, and circulation needs.

Policy C1.2.1: Provide adequate system capacity and efficiency through exclusive turn lane additions at arterial intersections and other significant locations.

Policy C1.2.2: Assure safe and efficient arterial operations through careful control of access, signal spacing, median placement, and overall street and development design.

Policy C1.2.3: Protect and increase the capacity of arterial streets through the following measures:
1. No new direct residential driveway access will be permitted onto regional, major and secondary arterials or highways, except where no other feasible access is available.

2. For residential development, full intersections will generally be permitted at no less than one-quarter mile spacing along arterial streets. Where it is determined by the City Traffic Engineer that community-wide circulation will not be negatively impacted, full intersections (non-signalized) may be permitted at approximately one-eighth mile spacing.

3. Except as specified in Policy C1.2.3.b, right turn only access will typically be permitted at approximately one-eighth mile spacing in residential developments, unless no other feasible access is available. Additional right-of-way may be required on arterials for right turn lanes onto local and collector streets, and significant private streets or driveways.

4. On-street parking will be prohibited on arterial roadways, unless otherwise approved by the City Traffic Engineer.

5. New arterial streets, and extensions of existing arterial streets, will be designed so as to eliminate jogs and discontinuities and facilitate regional traffic flow.

6. All secondary, major and regional arterials should be constructed with medians.

Policy C1.2.4: Promote development of regional arterial links within the community where needed to serve existing and future needs, including but not limited to the following:

1. Promote development of grade separations at railroad tracks, in particular, at Palmdale Boulevard.

2. Coordinate with Caltrans and other affected agencies to expedite rerouting of Highway 138 and widening of State Route 14.

3. Coordinate with affected agencies and jurisdictions to address the potential for establishing a regional north-south transportation corridor within the west side of the Antelope Valley.

Policy C1.3.1: Promote development of local street patterns, which create and unify neighborhoods, rather than divide them, through the following means:

1. Local street patterns should provide access between subdivisions within a neighborhood, with the exception of through traffic which should be directed onto major and secondary arterials.
2. The local street system should be logical and understandable for the user. Creation of circuitous and confusing travel paths between internal neighborhood areas and adjacent arterials should be avoided.

3. The street system should be designed to avoid creating local streets, which will ultimately function as collectors. A local street may be determined to function as a collector street when it is or will be used to collect traffic from local streets and convey it to an arterial street. This function of collecting traffic may be due to the street’s length, alignment, design or the lack of other streets which may be used to convey traffic to nearby arterials. In general, local streets will be discouraged from extending more than one-half mile so as to avoid serving this function.

4. Direct residential driveway access onto collectors, or onto local streets, which function as collectors, is discouraged.

5. Local street design should provide efficient connection to the arterial highway system while discouraging excessive speeds and volumes within neighborhoods.

6. Maximum cul-de-sac length should be 700 feet. “Dog-leg” cul-de-sacs with one or more turns between the bulb and the outlet should be avoided.

7. To discourage excessive speed and through traffic, street width should not exceed that required for the level of use; right-of-way and pavement widths on local streets may be reduced when it can be demonstrated that such reduction will not negatively impact internal and external circulation. Where such reductions are proposed, the City Traffic Engineer shall make appropriate recommendations to the Planning Commission during review of the tentative map.

Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

Policy C1.4.2: Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service or LOS C, whichever is less, and other performance characteristics applicable to the affected roadways. Development shall not be authorized until measures are in place to construct any necessary improvements; these measures may include, but not be limited to, payment of traffic impact fees or construction of street improvements as required in the conditions of approval.

Policy C1.4.3: Establish street design standards, which provide the capacities that are needed to adequately serve the projected travel demand.
Policy C1.4.5: Locate and design intersections so as to promote safe and efficient circulation, through the following means:

- Local to local street intersections should be spaced at least 150 feet apart (from centerline to centerline).

- Intersections, including knuckles, should generally be perpendicular. Public streets should intersect at a 90 degree angle plus or minus five degrees. Knuckles should be constructed at a 90 degree angle, plus or minus 10 degrees.

- Excessive grade variations, curves or other features which impair sight distance at intersections shall be avoided.

- Local to collector street intersections should be spaced no less than 300 feet apart, where necessary to provide adequate queuing room for left turn movements on to the collector street. Where left turn movements onto the collector street are not needed, this spacing requirement may be reduced to 150 feet.

- On local to local intersections, four-way intersections should be avoided.

- For intersections of collector or larger streets, four-way intersections are preferred over offset or “T” intersections.

Policy C1.4.6: Adopt standards for use of private streets, where appropriate; private streets, other than driveways and alleyways typically associated with multi-family development, should be constructed to City standards for public rights-of-way, and should be used only for gated communities.

Policy C1.5.2: Periodically monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.

Policy C1.8.1: Cooperate with other agencies and jurisdictions, including Caltrans, Los Angeles County, and adjacent cities, to evaluate the proposed solutions to regional transportation issues relating to the City of Palmdale.

Policy C1.8.2: Coordinate with other jurisdictions to integrate circulation networks.

Policy C2.1.1: Require Transportation Demand Management Plans from major employers, as defined by the Air Quality Management District and the Congestion Management Plan.

Policy C2.1.2: Promote the use of ridesharing by providing safe and convenient park-and-ride facilities, accessible to mass transit facilities where available, and by providing public information programs for commuters.
Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.

Policy C2.1.4: Provide incentives for trip reduction measures.

Policy C2.1.5: Ensure compliance with the County’s Congestion Management Plan.

Policy C2.1.6: Promote alternative means of trip reduction, including telecommuting.

Policy C2.2.1: Promote public transit operations within the Planning Area, and work with transit operators to coordinate schedules, services, service routes, and fares.

Policy C2.2.2: Promote the use of public transit by facilitating dedication of access routes and construction of safe and convenient stops with sufficient parking.

Policy C2.2.3: Encourage location of bikeways and storage areas which are integrated with public transit facilities.

Policy C2.2.4: Encourage development of regional rail transit serving the Palmdale area.

Policy C2.2.5: Require provision of bus turnouts for new development, where deemed to be appropriate in consultation with the transit authority.

Policy C2.2.6: Establish a regional transportation center within the City, conveniently located to maximize access to downtown and major commercial centers, which will accommodate a variety of public transportation uses including rail, bus, and shuttle service.

Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Policy C3.1.3: Promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas.

Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Policy C3.1.5: Adopt and implement a bikeway plan as a component of the Parks, Recreation and Trails Element.

Policy C4.2.2: Support regional efforts to provide commuter rail service from Palmdale to the Los Angeles basin.

Policy C5.1.3: Coordinate development policies and decisions with Air Force Plant 42 representatives.
Policy C5.2.1: Promote economic development of land surrounding the airport for large-scale commercial uses, so as to support a market demand for airport services.

Policy C5.2.2: Restrict encroachment of incompatible uses into land affected by future airport operations.

Policy C5.2.3: Promote and support regional transportation planning for routes serving the airport facility, including State Routes 14 and 138.

Policy PRT1.6.1: Provide trail linkages through active park sites to connect nearby equestrian and multi-use trails, and bikeways.

Policy PRT5.1.1: Establish Class I, II and III bikeways throughout the planning area. Backbone Class I and II bikeways are shown on Exhibit PRT-2.

Policy PRT5.1.2: Focus additional planning efforts towards establishing local bikeway networks which connect with the city-wide backbone system.

Policy PRT5.1.3: Reserve right-of-way, require dedication when appropriate, and ensure construction of bikeways through the development review process and Capital Improvement Program.

Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):

- Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends.

- Subdivision design should consider bicycle and pedestrian access to nonresidential uses. These areas are best accessed through perimeter (single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.

Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.

Policy PRT5.1.7: Provide for the designation and improvement of bicycle support facilities, including staging areas, parking facilities and bike lockers, at appropriate locations along the bikeway network, through the development review process and Capital Improvement Program.

Policy PRT5.2.1: Utilize the following criteria in designating bikeways:

- The bikeway network should be designed to suit the needs of all types of bike riding, including recreational, commuter, utilitarian and long-distance cycling.
The bikeway system should form a continuous network, with dead-end spurs minimized.

The bikeway network should interconnect public facilities, schools, parks, recreational areas, commuter facilities and major community, industrial, recreational, institutional, employment and commercial centers.

Utilize open space easements, public land, flood control facilities, the California Aqueduct right-of-way and utility easements, where appropriate, to facilitate the objectives of the Bikeway Network and establish safe and continuous off-street bikeways.

Where feasible, the bikeway system should be coordinated with bike routes in adjacent jurisdictions.

The bikeway network should maximize opportunities for diverse recreational and scenic experiences.

Bikeways should be located and designed to permit the cyclist to reach destination points with a minimum expenditure of time and energy.

Off-street bikeways (Class I) shall be designed to accommodate pedestrian use, where appropriate.

Policy PRT5.2.2: Adopt the design standards, described in the State of California Highway Design Manual, Chapter 1000, which set forth minimum bikeway widths and clearances, maximum grades and road crossing details, among other things.

Policy PRT5.3.2: Require utilization of Class I bike paths in all master planned developments.

Policy CD 10.7.7: Facilities to accommodate alternate travel modes are encouraged. Transit facilities, including bus turnouts, benches, and/or shelters may be required, and should integrate with the overall site design. Convenient and secure bicycle parking areas will be required.

Project Mitigation Measures:

TR-1 Prior to approval of any specific development application, a Traffic Impact Analysis shall be prepared pursuant to the City’s Traffic Impact Analysis Guidelines. For projects that generate traffic that would result in an intersection or roadway segment operating beyond LOS D, or result in an increase in traffic volumes at an intersection or roadway segment, which is already operating at beyond LOS D without the proposed project, the Traffic Impacts Analysis shall propose binding mitigation strategies to be incorporated within the project.

ALTERNATIVE TRANSPORTATION – 
BUS AND COMMUTER RAIL SERVICES

Thresholds:

Would the project 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 pedestrian and bicycle paths, and mass transit? 

Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?

Impact Analysis: As discussed above, public transit service within the Expansion Area is provided by AVTA, Access Paratransit Services, and Tuesday Medical Shuttle. The available AVTA operations include Transit, Commuter, and Dial-A-Ride. There are eight centrally located bus stops within the PTC, providing convenient connections between regional service providers and local bus routes. Metrolink is a regional rail system that includes commuter and other passenger services, linking communities to employment and activity centers. Metrolink's Antelope Valley Line serves the project area. The PTC is a state-of-the-art transportation facility located within the project area. The PTC also provides parking for passengers using bus transit or commuter rail service. The potential impacts to bus and commuter rail service/facilities are discussed below.

Disruptions to Existing Service. Buildout of the Expansion Area in accordance with the General Plan would not interfere with access to any of the existing routes, lines, or services. The proposed project would enhance transit services by improving circulation and access within the project area. Therefore, impacts to existing bus and commuter rail services would be less than significant.

Interference with Planned Service. There are no known planned expansions to AVTA’s existing bus service or Metrolink’s existing commuter rail service. Thus, no impact would occur in this regard.

Conflicts with Adopted Bus Service Plans, Guidelines, or Policies. It is the City’s goal to reduce the number of trips and vehicle miles traveled by individuals within the Planning Area, to meet regional transportation and air quality goals (Circulation Element Goal 2). To this end, the City proposes to “encourage development and implementation of a variety of measures to reduce trips and vehicle miles traveled by existing and future residents and workers within the Planning Area” (Objective C2.1). Such trip reduction measures address the availability of adequate bus and commuter rail service. Accordingly, the City has identified the policies outlined below, in order to meet the specified goals/objectives. All future development within the project area would be required to comply with the GPEIR Policies outlined below, which would ensure conflicts with the Circulation Element’s goals and policies involving bus and commuter rail service would not occur.
Demand for Service. According to the U.S. Census 2000, 2.7 percent of all commute trips within the City are made by public transportation. Buildout of the Expansion Area in accordance with the General Plan would increase population and employment within the project area, thus, increasing the demand for bus and commuter rail service. Although an incremental growth in transit trips is anticipated with buildout of the Expansion Area in accordance with the General Plan, the increased demand would be accommodated within the existing capacity provided. Impacts would be less than significant in this regard. Potential impacts would be further minimized following compliance with GPEIR Policies outlined below, which would support alternative transportation (bus and commuter rail service) and ensure that public transportation needs are accounted for, as development occurs.

Buildout of the Expansion Area in accordance with the General Plan would accommodate alternative forms of transportation, beyond the automobile, within the area. Overall, the project area would be improved and the City would encourage the use of bus and commuter rail service. Impacts would be less than significant in this regard.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to GPEIR Policy C2.1.1, Policy C2.1.2, Policy C2.1.3, Policy C2.1.6, Policy C2.2.1, Policy C2.2.2, Policy C2.2.3, Policy C2.2.4, Policy C2.2.5, Policy C3.1.2, Policy C4.2.2, and Policy CD 10.7.7.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

ALTERNATIVE TRANSPORTATION – BIKEWAYS

Thresholds:

Would the project 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 pedestrian and bicycle paths, and mass transit?

Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?

Impact Analysis: As indicated on GPEIR Exhibit 3-32, there are existing and planned bikeways within and adjacent to the project area. Buildout of the Expansion Area in accordance with the General Plan could result in impacts to bikeways, including disruptions to existing facilities, interference with planned facilities, and/or conflicts with adopted plans, guidelines, policies, or standards relating to bicycles.
Existing and Planned Bicycle Facilities. There are existing facilities located on-street within the project area. Also, as indicated on GPEIR Exhibit 3-32, several bikeways are proposed along roadways within or adjacent to the project area. Therefore, buildout of the project area in accordance with the General Plan and/or the project’s proposed infrastructure and transportation improvements could conflict with existing and proposed bicycle facilities. However, all future roadway improvements would be implemented according to the City’s adopted standards for typical street sections, as illustrated on General Plan Exhibit C-1 and Table C-1, and adopted Bikeways Plan. The streets would be designed as “complete streets,” accommodating pedestrians, bicyclists, and motorists. Trail identification signs would be placed at street crossings and at locations determined necessary for the trail designation. Hazard signs would be placed wherever there is a potentially significant safety hazard to bicyclists. Additionally, consistent with Circulation Element Goal 3, the City would continue to encourage use of non-vehicular transportation such as bicycle facilities throughout the project area. To this end, the City would promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas (Policy C3.1.3). The City would also require residential subdivision designs to accommodate convenient bicycle access, both on- and off-site (Policy C3.1.4). Therefore, project implementation would result in less than significant impacts to existing and planned bicycle facilities.

Conflicts with Adopted Bicycle Plans, Guidelines, or Policies. It is the City’s goal to reduce the number of trips and vehicle miles traveled by individuals within the Planning Area, to meet regional transportation and air quality goals (Circulation Element Goal 2). To this end, the City proposes to encourage development and implementation of a variety of measures to reduce trips and vehicle miles traveled by existing and future residents and workers within the Planning Area (Objective C2.1). Such trip reduction measures address the availability of adequate bicycle trails. Accordingly, the City has identified the policies outlined below, in order to meet the specified goals/objectives. The City would require that provisions be made for bikeways in the site design, in accordance with the City’s adopted bikeway plan (Policy CD 10.4.9). All future development and infrastructure/transportation improvements within the project area would be required to comply with the GPEIR Policies outlined below, which would ensure conflicts with the General Plan’s goals and policies involving bicycle facilities would not occur.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to GPEIR Policy C2.1.1, Policy C2.1.3, Policy C2.1.6, Policy C3.1.2, Policy C3.1.3, Policy C3.1.4, Policy C3.1.5, and Policy PRT1.6.1, Policy 5.1.1, Policy 5.1.2, Policy 5.1.3, Policy 5.1.4, Policy 5.1.6, Policy 5.1.7, Policy 5.2.1, Policy 5.2.2, Policy 5.3.2, Policy CD 10.7.7, and the following:

Policy PRT5.3.1: Bikeway safety shall be a primary consideration in the City's planning and design of the bikeway plan.

Policy PRT5.3.3: Establish maintenance levels and schedules for bicycle facilities, and implement on-going maintenance.

Policy PRT5.3.4: Locate and design bikeway facilities to promote safety through the avoidance of visually obstructive elements and the requirement of lighting, where appropriate.
Policy PRT5.3.5: Where feasible, bikeways should be physically separated from traffic lanes by landscaped areas, grade changes, or physical barriers to enhance bicyclist safety.

Policy CD 10.4.9: Provisions for bikeways should be made in the site design, in accordance with the City's adopted bikeway plan.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

## 5.2.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVELY CONSIDERABLE TRAFFIC AND CIRCULATION IMPACTS.**

**Impact Analysis:**

**CUMULATIVE ROADWAY AND INTERSECTION OPERATIONS**

The estimated number of trips generated from General Plan buildout (which includes buildout of the Expansion Area) is presented in GPEIR Table 4-12 (Existing and Buildout Land Use Trip Generation). As indicated in GPEIR Table 4-12, the GPEIR concluded that the proposed Land Use Plan is forecast to generate a total of 3,528,026 ADT at buildout. Buildout of the proposed Expansion Area in accordance with the General Plan and cumulative development within the City consistent with General Plan buildout could result in cumulatively significant impacts to roadway and intersection LOS.

As indicated in GPEIR Table 4-13, the majority of the study area roadways would operate at an acceptable LOS (C or better) under future buildout conditions. A total of nine roadways (14 segments) would operate at LOS D or worse under future buildout conditions, inclusive of Expansion Area buildout. The GPEIR concluded a significant and unavoidable impact would occur involving these roadway segments, despite implementation of a citywide TDM Program, the assumed improvements, and compliance with Circulation Element Policies. Intersection capacities in the new Circulation Plan at General Plan buildout were also analyzed in the GPEIR. Although, the increased capacity of the new Circulation Plan would improve overall intersection traffic operations at buildout, the GPEIR anticipated that some General Plan study area intersections would operate beyond LOS D. The Circulation Element further concluded unacceptable levels of congestion are likely to occur without further specific capacity improvements at intersections or reduction of traffic demand through aggressive local TDM measures.
The SOC summarizes General Plan buildout statistics as updated to reflect annexations and development proposals that involved General Plan Amendments, since preparation of the GPEIR. As indicated in SOC Table 6.0-6, a total of eight roadways (24 segments) within the General Plan study area would operate at LOS D or worse at General Plan buildout, inclusive of Expansion Area buildout.

Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR and SOC analyses, since these assumed additional development within the area consistent with the Land Use Plan, and the project's impacts upon roadway and intersection LOS are a factor of the anticipated development's forecast traffic volumes, which are based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analyses presented in the GPEIR and SOC, and would result in no greater impacts to roadway or intersection LOS than previously identified. The buildout analyses presented in the GPEIR and SOC adequately address the project's long-term cumulative traffic and circulation impacts. Additionally, all future development within the City would be subject to compliance with the GPEIR Policies and Mitigation Measures. Therefore, less than significant cumulative traffic and circulation impacts are anticipated.

CUMULATIVE TRANSIT AND BICYCLE FACILITIES

Buildout of the proposed Expansion Area in accordance with the General Plan and cumulative development within the City consistent with General Plan buildout would not significantly impact existing transit and bicycle facilities. Although ridership and use of the facilities are anticipated to increase with buildout of the Expansion Area and cumulative development, the increased demands would be accommodated commensurate with the increased residential densities and non-residential intensities anticipated by the General Plan. Impacts would be less than significant in this regard.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures outlined above.


5.2.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Potential traffic and circulation impacts would be less than significant following compliance with identified mitigation measures, the GPEIR Mitigation Measures and Policies, and Code requirements.
5.3 Air Quality
5.3 AIR QUALITY

5.3.1 INTRODUCTION

This section evaluates air quality associated with short- and long-term impacts resulting from implementation of the proposed project. Information in this section is based upon the following resources:

- California Environmental Quality Act (CEQA) and Federal Conformity Guidelines (Antelope Valley Air Quality Management District, May 2008);
- Antelope Valley Air Quality Management District Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment Area) (May 20, 2008);
- Air Quality Data (California Air Resources Board 2007 through 2009);
- Section 5.2, Transportation and Circulation, of this EIR;
- City of Palmdale General Plan Environmental Resources Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993); and

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential air quality impacts as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2. (Air) (pages 4-39 through 4-54). The GPEIR concludes that although construction emissions are potentially significant, these emissions are short-term. Construction emissions were not quantified as part of the GPEIR analysis, as specific future development was unknown at the time. Therefore, the GPEIR concluded that even after the application of General Plan Policies and mitigation measures, the amount of anticipated development that could occur with implementation of the General Plan would result in significant and unavoidable air quality impacts.
5.3.2 EXISTING SETTING

MOJAVE DESERT AIR BASIN

The State of California is divided geographically into 15 different air basins. The City of Palmdale is located within the Mojave Desert Air Basin (MDAB), which includes the desert portions of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The MDAB primarily contains pollutants from other air basins, dust raised by construction, travel on unpaved roads, and paved roads with silty debris.

The MDAB consists of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains throughout the MDAB rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These winds result from the proximity of the MDAB to the coastal and central regions of the State and the Sierra Nevada Mountains to the north. Additionally, air masses are pushed onshore in southern California by differential heating and are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California Valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered to the northwest by the Tehachapi Mountains, separated from the Sierra Nevada Mountains to the north by the Tehachapi Pass, and bordered to the south by the San Gabriel Mountains.

CLIMATE

During the summer a Pacific Subtropical High cell that is located off the coast inhibits cloud formation and encourages daytime solar heating in the MDAB. Desert moisture primarily arrives from infrequent warm, moist, and unstable air masses from the south. However, the Antelope Valley portion of the MDAB does not receive the extensive ocean breezes found in the South Coast Air Basin. Instead, an uplifting of wind masses occurs where warm moist air from Pacific Ocean storms is lifted upward by the San Gabriel Mountains and Sierra Palona. This uplifting creates heavier precipitation in the Los Angeles basin, and less precipitation with greater temperature variation throughout the year in the MDAB.

Summers are relatively hot and winters are relatively cold in the desert. This is a low average rainfall, with occasional summer thunderstorms, with larger storms occurring from late fall to spring. Annual precipitation varies from four to nine inches. The temperature in Palmdale ranges from two to 117 degrees Fahrenheit (°F), with an average temperature of 62°F. Milder temperatures with occasional storms or thundershowers occur in spring and fall.

WIND

One of the most important climatic factors is the direction and intensity of the prevailing winds. Winds in Palmdale occur from the west, west-southwest, and southwest. Although a portion of Palmdale’s winds come from the Los Angeles basin, a significant amount is due to the phenomenon known as the “orographic effect.” The air is forced over the mountain range, losing moisture as it rises and compressing and heating up when it descends. The speed of the wind is aided by the “desert heat lows” that routinely form over the eastern Mojave Desert area.
During the fall, the regional wind pattern reverses, causing warm, dry air to blow into the Los Angeles basin from the desert. These “Santa Ana” winds are usually light and variable in the desert areas; however, they cause severe damage after they accelerate through the mountain passes and enter the coastal basins. These winds occur along the San Bernardino and San Gabriel mountains in a southwesterly pattern into the Los Angeles basin.

Prevailing winds are usually sufficient to dissipate locally produced air pollution. However, these winds often transport air pollutants from the Los Angeles basin and San Joaquin Valley into the desert basin.

PHOTOCHEMICAL SMOG

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original or “primary” pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form “secondary” pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of southern California.

TEMPERATURE INVERSIONS

The southern California region often experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlying cool, moist marine air, is a normal condition in the southland. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air that acts as a lid through which the marine layer cannot rise. When the inversion layer is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over mountain slopes or passes. At a height of 1,200 feet, the inversion concentrates pollutants into a shallow layer. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight.

MONITORED AIR QUALITY LEVELS

The monitoring stations in the State are operated by CARB, local Air Pollution Control Districts (APCD) or Air Quality Management Districts (AQMD), by private contractors, and by the National Park Service (NPS). These entities operate more than 250 air monitoring stations in California. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The Lancaster – Division Street Monitoring Station is the air monitoring station located nearest the City of Palmdale. Air quality data from 2007 to 2009 for the Lancaster – Division Street Monitoring Station is provided in Table 5.3-1, Local Air Quality Levels. The following air quality information briefly describes the various types of pollutants monitored at the local stations.
### Table 5.3-1
Local Air Quality Levels

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Primary Standard</th>
<th>Year</th>
<th>Maximum Concentration</th>
<th>Number of Days State/Federal Std. Exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>California</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Federal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon Monoxide (CO) (1-Hour)</td>
<td>20 ppm for 1 hour</td>
<td>2007</td>
<td>2.5 ppm</td>
<td>0/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>2.2</td>
<td>0/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009</td>
<td>1.8</td>
<td>0/0</td>
</tr>
<tr>
<td>Carbon Monoxide (CO) (8-Hour)</td>
<td>9 ppm for 8 hours</td>
<td>2007</td>
<td>1.25 ppm</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>1.04</td>
<td>0/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009</td>
<td>1.00</td>
<td>0/0</td>
</tr>
<tr>
<td>Ozone (O3) (1-Hour)</td>
<td>0.09 ppm for 1 hour</td>
<td>2007</td>
<td>0.118 ppm</td>
<td>16/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>0.116</td>
<td>18/0</td>
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<td></td>
<td></td>
<td>2009</td>
<td>0.122</td>
<td>22/0</td>
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<td>Ozone (O3) (8-Hour)</td>
<td>0.070 ppm for 8 hours</td>
<td>2007</td>
<td>0.101 ppm</td>
<td>63/42</td>
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<td></td>
<td></td>
<td>2008</td>
<td>0.103</td>
<td>59/34</td>
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<td></td>
<td></td>
<td>2009</td>
<td>0.102</td>
<td>70/44</td>
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<tr>
<td>Nitrogen Dioxide (NO2)</td>
<td>0.18 ppm for 1 hour</td>
<td>2007</td>
<td>0.064 ppm</td>
<td>0/NA</td>
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<td></td>
<td></td>
<td>2008</td>
<td>0.062</td>
<td>0/NA</td>
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<tr>
<td></td>
<td></td>
<td>2009</td>
<td>0.065</td>
<td>0/NA</td>
</tr>
<tr>
<td>Particulate Matter (PM10)²,³,⁵</td>
<td>50 µg/m³ for 24 hours</td>
<td>2007</td>
<td>188.0 µg/m³</td>
<td>3/1</td>
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<td></td>
<td></td>
<td>2008</td>
<td>73.0</td>
<td>1/0</td>
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<td></td>
<td></td>
<td>2009</td>
<td>60.0</td>
<td>1/0</td>
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<tr>
<td>Fine Particulate Matter (PM2.5)²,⁵</td>
<td>No Separate State Standard</td>
<td>2007</td>
<td>25.0</td>
<td>NM/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>24.0 µg/m³</td>
<td>NM/0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009</td>
<td>20.0</td>
<td>NM/0</td>
</tr>
</tbody>
</table>

ppm = parts per million  PM10 = particulate matter 10 microns in diameter or less  
µg/m³ = micrograms per cubic meter  PM2.5 = particulate matter 2.5 microns in diameter or less  
NM = Not Measured  NA = Not Applicable  

Notes:  
1 – Maximum concentration is measured over the same period as the California Standard.  
2 – Measurements taken at the Lancaster – Division Street Monitoring Station (located at 43301 Division Street, Lancaster, California).  
4 – PM10 exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.  
5 – PM10 and PM2.5 exceedances are derived from the number of samples exceeded, not days.  


Ozone. Ozone (O₃) occurs in two layers of the atmosphere. The layer surrounding the earth’s surface is the troposphere. The troposphere extends approximately ten miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the “good” ozone) layer extends upward from about ten to 30 miles and protects life on earth from the sun’s harmful ultraviolet rays (UV-B). “Bad” ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), Nitrogen Oxides (NOₓ) and sunlight to form; therefore, VOCs and NOₓ are ozone precursors. VOCs and NOₓ are emitted from various sources throughout the City. Significant O₃ formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High O₃ concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.
Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. O₃ also damages natural ecosystems (such as forests and foothill plant communities) and damages agricultural crops and some man-made materials (such as rubber, paint and plastics). Societal costs from O₃ damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment and reduced crop yields.

Carbon Monoxide. Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

Nitrogen Dioxide. Nitrogen oxides (NOₓ) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O₃, and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NOₓ) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO₂ can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM₁₀). PM₁₀ refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children’s Environmental Health Protection Act (SB 25).

Fine Particulate Matter (PM₂.₅). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal PM₂.₅ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new PM₂.₅ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA’s new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal PM₂.₅ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for
significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Reactive Organic Gases and Volatile Organic Compounds. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and volatile organic compounds (VOCs). Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

**SOURCES OF AIR EMISSIONS**

The SOC indicates the City’s greatest sources of emissions are mobile sources, consisting of motor vehicles, trains, and aircraft. Stationary sources include utilities, natural gas consumption, electricity generation, heating/cooling equipment, dry cleaning equipment, gasoline pumps, and restaurant equipment. Emissions are also generated from construction activities, including the transport of workers and equipment to construction sites, the operation of heavy equipment on the site, fugitive dust, and reactive organic compounds.

**SENSITIVE RECEPTORS**

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (or sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The sensitive receptors located within the project area are listed in Table 5.3-2, *Sensitive Receptors*.

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of Worship</td>
<td>Islamic Center of North Valley</td>
<td>42554 4th Street East</td>
</tr>
<tr>
<td></td>
<td>Cornerstone Apostolic Church</td>
<td>9324 3rd Street East</td>
</tr>
<tr>
<td></td>
<td>Sunrise Metropolitan Community Church</td>
<td>39149 8th Street East</td>
</tr>
<tr>
<td></td>
<td>Yahweh Family Christian Center</td>
<td>247 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Crossroads Community Church</td>
<td>327 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Lighthouse Miracle Christian</td>
<td>38445 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Right Spirit Fellowship Church</td>
<td>38715 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Agape Christian Fellowship Church</td>
<td>38342 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Holy Cross Antiochian Orthodox</td>
<td>38201 6th Street East</td>
</tr>
<tr>
<td></td>
<td>True Vine Gospel Church</td>
<td>859 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>New Covenant Tabernacle</td>
<td>8626 9th Street East</td>
</tr>
<tr>
<td></td>
<td>World of Life Outreach Ministries</td>
<td>38514 9th Street East</td>
</tr>
<tr>
<td></td>
<td>Lighthouse Assembly</td>
<td>38500 9th Street East</td>
</tr>
</tbody>
</table>
### Table 5.3-2 (continued)
#### Sensitive Receptors

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of Worship (continued)</td>
<td>Foursquare Church</td>
<td>8325 10th Street East</td>
</tr>
<tr>
<td></td>
<td>First Baptist Church</td>
<td>1051 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Masjid of Antelope Valley</td>
<td>1125 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Alpha &amp; Omega Spanish Church</td>
<td>38126 12th Street</td>
</tr>
<tr>
<td></td>
<td>Desert Winds Community Church</td>
<td>38117 13th Street East</td>
</tr>
<tr>
<td></td>
<td>Iglesia Missionera Antiqiuia</td>
<td>38111 15th Street East</td>
</tr>
<tr>
<td></td>
<td>Iglesia De Cristo Miel Av</td>
<td>1675 East Avenue Q-15</td>
</tr>
<tr>
<td></td>
<td>St. Stephens of the Valley</td>
<td>1737 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>St. Mary’s Catholic Church</td>
<td>1600 East Avenue R-4</td>
</tr>
<tr>
<td></td>
<td>Palmdale Seventh Day Adventist</td>
<td>1758 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Horizon Community Church</td>
<td>1850 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Church of Jesus Christ of Latter Day Saints</td>
<td>2120 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Universal Church</td>
<td>8678 15th Street East</td>
</tr>
<tr>
<td></td>
<td>International Church</td>
<td>1817 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>Trinity Baptist Church</td>
<td>2045 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Desert Winds Community Church</td>
<td>2121 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Church of Christ</td>
<td>2340 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>Palmdale Landmark Missionary Baptist</td>
<td>2646 East Avenue Q-4</td>
</tr>
<tr>
<td></td>
<td>Jehovah’s Witnesses</td>
<td>2820 East Avenue Q-6</td>
</tr>
<tr>
<td></td>
<td>Lord's House Christian Church</td>
<td>38739 Glenbush Avenue</td>
</tr>
<tr>
<td>Schools</td>
<td>Brandman University</td>
<td>40015 Sierra Highway</td>
</tr>
<tr>
<td></td>
<td>Embry-Riddle Aeronautical University</td>
<td>40015 North Sierra Highway</td>
</tr>
<tr>
<td></td>
<td>Yucca Elementary School</td>
<td>38440 2nd Street East</td>
</tr>
<tr>
<td></td>
<td>Rex Parris High School</td>
<td>38801 Clock Tower Plaza Drive</td>
</tr>
<tr>
<td></td>
<td>Guidance Charter School</td>
<td>1125 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Tumbleweed Elementary School</td>
<td>1100 East Avenue R-4</td>
</tr>
<tr>
<td></td>
<td>Cactus Elementary School</td>
<td>38060 20th Street East</td>
</tr>
<tr>
<td></td>
<td>Palmdale High School</td>
<td>2137 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Leaps &amp; Bounds Preschool</td>
<td>2026 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>Desert Sands Charter High School</td>
<td>3084 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Desert Rose Elementary School</td>
<td>37730 27th Street</td>
</tr>
<tr>
<td></td>
<td>Wilsona Elementary School</td>
<td>38136 35th Street East</td>
</tr>
<tr>
<td>Libraries</td>
<td>Palmdale City Library</td>
<td>700 East Palmdale Boulevard</td>
</tr>
<tr>
<td>Parks</td>
<td>Desert Sands Park</td>
<td>3rd Street East &amp; East Avenue P-8</td>
</tr>
<tr>
<td></td>
<td>Doctor Robert C St. Clair Parkway</td>
<td>Along Sierra Highway</td>
</tr>
<tr>
<td></td>
<td>W J McAdam Memorial Park</td>
<td>30th Street East</td>
</tr>
<tr>
<td>Senior Center</td>
<td>Legacy Commons</td>
<td>930 East Avenue Q-9</td>
</tr>
</tbody>
</table>

Source: Google Earth Maps accessed November 2010.
5.3.3 REGULATORY FRAMEWORK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The EPA is responsible for implementing the Federal Clean Air Act, which was first enacted in 1955 and was amended numerous times. The Federal Clean Air Act established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are Ozone (O₃), Carbon Monoxide (CO), Nitrogen Dioxide (NO₂) (which is a form of nitrogen oxides [NOₓ]), Sulfur Dioxide (SO₂) (which is a form of sulfur oxides [SOₓ]), Particulate Matter (PM₁₀), Fine Particulate Matter (PM₂.₅), and Lead (Pb); refer to Table 5.3-3, National and California Ambient Air Quality Standards.

CALIFORNIA AIR RESOURCES BOARD

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 5.3-3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

STATE AIR TOXICS PROGRAM

Toxic air contaminants are another group of pollutants of concern in Southern California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (Health and Safety Code Section 39660 et seq.) and Part 6 (Air Toxics “Hot Spots” Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. The program is administered by CARB. Air quality control agencies, including the AVAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.
### Table 5.3-3
National and California Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Standard, Attainment Status</td>
<td>Standards, Attainment Status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Hour</td>
<td>8 Hours</td>
</tr>
<tr>
<td>Ozone (O&lt;sub&gt;3&lt;/sub&gt;)</td>
<td>1 Hour</td>
<td>0.09 ppm (180 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Nonattainment</td>
</tr>
<tr>
<td></td>
<td>8 Hours</td>
<td>0.07 ppm (137 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Particulate Matter (PM&lt;sub&gt;10&lt;/sub&gt;)</td>
<td>24 Hours</td>
<td>50 μg/m&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Nonattainment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 μg/m&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM&lt;sub&gt;2.5&lt;/sub&gt;)</td>
<td>24 Hours</td>
<td>No Separate State Standard</td>
<td>35 μg/m&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>8 Hours</td>
<td>9.0 ppm (10 mg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>20 ppm (23 mg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Attainment</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Annual Arithmetic Mean</td>
<td>0.030 ppm (57 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.18 ppm (339 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Attainment</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>30 days average</td>
<td>1.5 μg/m&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>Calendar Quarter</td>
<td>N/A</td>
<td>NA</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>Annual Arithmetic Mean</td>
<td>N/A</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>24 Hours</td>
<td>0.04 ppm (105 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>3 Hours</td>
<td>N/A</td>
<td>NA</td>
</tr>
<tr>
<td>Visibility-Reducing Particles</td>
<td>8 Hours (10 a.m. to 6 p.m., PST)</td>
<td>Extinction coefficient = 0.23 km@&lt;70% RH</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Sulfates</td>
<td>24 Hour</td>
<td>25 μg/m&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Attainment</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1 Hour</td>
<td>0.03 ppm (42 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>24 Hour</td>
<td>0.01 ppm (26 μg/m&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>

μg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable.

Notes:
1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM<sub>10</sub> 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. In 1990, CARB identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
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. EPA also may designate an area as attainment/unclassifiable, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, 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.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6. The Environmental Protection Agency revoked the annual PM<sub>10</sub> standard in 2006 (effective December 16, 2006).

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT

Air districts have the primary responsibility to control air pollution from all sources other than those directly emitted from motor vehicles, which are the responsibility of the CARB and the EPA. Air districts adopt and enforce rules and regulations to achieve State and Federal ambient air quality standards and enforce applicable State and Federal law.

Initially, the desert portion of Los Angeles County, within the MDAB, was under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). However, on July 1, 1997, this area was established as the Antelope Valley Air Pollution Control District (later known as the Antelope Valley Air Quality Management District [AVAQMD]). On January 1, 2002, the AVAQMD became a successor district to SCAQMD.

The AVAQMD was previously included by the SCAQMD in the SCAQMD 1994 Air Quality Management Plan (AQMP), as well as the 1997 AQMP revision. The AQMP set forth a comprehensive program that would lead the area into compliance with all Federal and State air quality standards. The AVAQMD adopted its own 2004 Ozone Attainment Plan (April 20, 2004). The document demonstrates that the AVAQMD would meet the primary Federal and State ozone planning milestones, attainment of the ozone NAAQS and CAAQS, by the end of 2007.

The AVAQMD CEQA and Federal Conformity Guidelines establish thresholds for pollutant emissions generated both during and following construction. For purposes of this air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors, and outdoor and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the CARB or criteria developed by the AVAQMD, including thresholds for criteria pollutants, are considered significant impacts. Table 5.3-4, Antelope Valley Air Quality Management District Emissions Thresholds, provides the thresholds set forth by the AVAQMD.

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Annual Threshold (Tons/year)</th>
<th>Daily Thresholds (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>100</td>
<td>548</td>
</tr>
<tr>
<td>Oxides of Nitrogen (NOx)</td>
<td>25</td>
<td>137</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOCs)</td>
<td>25</td>
<td>137</td>
</tr>
<tr>
<td>Oxides of Sulfur (SOx)</td>
<td>25</td>
<td>137</td>
</tr>
<tr>
<td>Particulate Matter (PM10)</td>
<td>15</td>
<td>82</td>
</tr>
</tbody>
</table>

Source: Antelope Valley Air Quality Management District, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, May 2008.

According to AVAQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, a project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable AVAQMD rules and regulations, complies with all proposed control measures that are not adopted from applicable plans, and is consistent with the growth forecasts in the
applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast (i.e., City of Palmdale General Plan).

In addition, the significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards. If the project causes an exceedance of either the State one-hour or eight-hour CO concentrations, the project would be considered to have a significant local impact. If ambient levels already exceed a State or Federal standard, then project emissions would be considered significant if they increase one-hour CO concentrations by 1.0 ppm or more, or eight-hour CO concentrations by 0.45 ppm or more. Refer to Table 5.3-5, Federal and State Carbon Monoxide Standards, for the applicable standards.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Averaging Time</th>
<th>Carbon Monoxide (CO) Standard (parts per million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>1 Hour</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>8 Hours</td>
<td>9</td>
</tr>
<tr>
<td>State</td>
<td>1 Hour</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>8 Hours</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: California Air Resources Board.

5.3.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to air quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources;
- Produce potentially toxic air emissions; refer to Section 8.0, Effects Found Not to be Significant;
- Potentially result in the creation of objectionable odors; refer to Section 8.0, Effects Found Not to be Significant; and/or
- Result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally.
Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.3.5 IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION

Threshold: Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). The projects and programs proposed within the Expansion Area involve public facilities, and infrastructure and transportation improvements. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Fugitive Dust. Construction activities are a source of fugitive dust (PM$_{10}$ and PM$_{2.5}$) emissions that may have a substantial, temporary impact on local air quality. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations and weather conditions. Fugitive dust (PM$_{10}$) poses a serious health hazard alone or in combination with other pollutants. Fine Particulate Matter (PM$_{2.5}$) is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO$_X$ and SO$_X$ combining with ammonia. PM$_{2.5}$ components from material in the earth’s crust, such as dust, are also present, with the amount varying in different locations.

Exhaust. Exhaust emissions would be generated by the operation of vehicles and equipment on future construction sites, such as tractors, dozers, scrapers, backhoes, cranes, and trucks. The majority of construction equipment and vehicles would be diesel powered, which tends to be more efficient than gasoline-powered equipment. Diesel-powered equipment produces lower CO and hydrocarbon emissions than gasoline equipment, but produces greater amounts of NO$_X$, SO$_X$, and particulates per hour of activity. The transportation of equipment and materials to and from the site, as well as construction workers traveling to and from the site would also generate vehicle emissions during construction.

Grading/Hauling. Depending on the amount of over-excavation and re-compaction that may be necessary to create a suitable building pad, future development facilitated by the proposed project may require the import/export of fill material. Although these activities may create
additional dust and PM$_{10}$ and PM$_{2.5}$, as well as truck-related emissions, they would be mitigated to less than significant levels through implementation of standard dust control practices required as part of the grading permit (periodic site watering, covering laden trucks with tarps, and periodic street sweeping).

Asbestos. It is possible that asbestos-containing materials may exist within existing buildings that may be modified or demolished. Therefore, the possibility exists that asbestos fibers may be released into the air should no asbestos assessment or removal (if needed) take place prior to demolition. Standard practice would be to conduct an asbestos assessment for candidate buildings to determine the presence of asbestos. If identified, an asbestos abatement contractor would be retained to develop an abatement plan and remove the asbestos containing materials, in accordance with local, State, and Federal requirements. After removal, demolition may proceed without significant concern to the release of asbestos fibers into the air.

The General Plan EIR (GPEIR) states that although construction emissions are potentially significant, these emissions are short-term. However, construction emissions were not quantified as part of the GPEIR analysis, as specific future development was unknown at the time. Therefore, the GPEIR concluded that even after the application of General Plan Policies and mitigation measures, the amount of anticipated development that could occur with implementation of the General Plan would result in significant and unavoidable air quality impacts.

Construction-related air quality impacts would be short-term and temporary, lasting only as long as the construction phase of the future development project. Nonetheless, construction impacts have the potential to violate Federal and State ambient air quality standards and may harm nearby sensitive receptors. The AVAQMD thresholds are applicable to the construction phase of future projects as well as project operations. It is assumed that some of the proposed public facilities, infrastructure and transportation improvements, and future development associated with buildout of the Expansion Area in accordance with the General Plan, could individually exceed the AVAQMD thresholds. Adherence to AVAQMD Rule 401, Visible Emissions, and Rule 403, Fugitive Dust, would reduce fugitive dust emissions generated at future construction sites within the Expansion Area by requiring dust abatement measures (Mitigation Measure AQ-1). Implementation of Mitigation Measure AQ-2 would require all trucks hauling excavated or graded material to comply with State Vehicle Code Section 23114 regarding the prevention of such material spilling onto public streets. Compliance with General Plan Policy ER5.2.1 of the General Plan would require measures to be taken at construction sites to prevent deposition of soil onto public rights-of-way. Additionally, erosion control and fugitive dust measures are required by General Plan Policy ER5.2.3 for new development (i.e., covering soil with straw mats, use of chemical soil and dust binders, and seeding and watering) immediately after grading. To reduce vehicle exhaust emissions during future construction activities, future development projects would be required to implement Mitigation Measure AQ-3. Implementation of Mitigation Measure AQ-4 would require future construction contractors to adhere to AVAQMD District Rule 1113 (Architectural Coatings) to limit volatile organic compounds from architectural coatings. Finally, Mitigation Measure AQ-5 would require all building demolition activities to adhere to AVAQMD District Rule 1403. Implementation of Mitigation Measures AQ-1 through AQ-5 and compliance with the existing General Plan Policies would lessen construction-related impacts by reducing air pollutant emissions from construction activities. However, due to the unknown nature of future construction activities, the potential exists that AVAQMD thresholds may be exceeded. Therefore, as concluded in the GPEIR,
construction-related air quality impacts would be considered significant and unavoidable due to the potential magnitude of construction that could occur from buildout of the Expansion Area and proposed public facilities, and infrastructure and transportation improvements.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Implementation Program ER-D1:** The City shall comply with the Antelope Valley Air Quality Management District requirements to implement the Tier I, II and III control measures described in the South Coast Air Quality Management Plan (SCAQMP), to the extent these measures apply to Palmdale.

**Policy ER5.2.1:** Reduce dust from unpaved roads and parking lots by requiring paving or vegetative stabilization of the unpaved areas; require that measures be taken at construction sites to prevent deposition of soil onto public rights-of-way.

**Policy ER5.2.3:** Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

**Project Mitigation Measures:**

**AQ-1** During clearing, grading, earth-moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventative measures using the following procedures, as specified by the AVAQMD, including but not limited to AVAQMD Rule 401, Visible Emissions, and Rule 403 Fugitive Dust:

- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site construction roads with vehicle traffic shall be watered periodically;
- Streets adjacent to the Project’s reach shall be swept as needed to remove silt that may have accumulated from construction activities so as to prevent excessive amounts of dust;
- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day;
- All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 35 miles per hour averaged over one hour) so as to prevent excessive amounts of dust;
- All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;
- The area disturbed by clearing, grading, earth-moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust; and
• These control techniques shall be indicated on project grading plans. Compliance with this measure shall be subject to periodic site inspections by the City of Palmdale.

AQ-2 All trucks hauling excavated or graded material on-site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4), as amended, regarding the prevention of such material spilling onto public streets.

AQ-3 During construction activities, excessive construction equipment and vehicle exhaust emissions shall be controlled by implementing the following procedures, as specified by the AVAQMD:

• Properly and routinely maintain all construction equipment, as recommended by manufacturer manuals, to control exhaust emissions;
• Shut down equipment when not in use for extended periods of time to reduce emissions associated with idling engines;
• Encourage ride sharing and use of transit transportation for construction employee commuting to the project sites;
• Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment; and
• Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak-hour of vehicular traffic on adjacent roadways.

AQ-4 The construction contractor shall adhere to AVAQMD District Rule 1113 (Architectural Coatings) to limit volatile organic compounds from architectural coatings. This rule specifies architectural coatings storage, clean up and labeling requirements.

AQ-5 All building demolition activities shall adhere to AVAQMD District Rule 1403 (Asbestos Emissions From Demolition/Renovation Activities) and Regulation X (National Emissions Standards for Hazardous Air Pollutants). Additionally, the demolished material shall be transported off-site expeditiously after demolition of the structure.

Level of Significance: Significant and Unavoidable Impact.

LONG-TERM OPERATIONAL

Thresholds:
Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?

Would the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?
Impact Analysis: Implementation of the proposed project would involve development of public facilities, and infrastructure and transportation improvements. Buildout of the Expansion Area would involve an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses, based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area. Although the exact nature and location of future land uses and improvements are not known at this time, new sources of air emissions could be introduced into the Expansion Area.

MOBILE SOURCES

Implementation of the proposed project would involve development of public facilities, and infrastructure and transportation improvements, however, would not directly involve construction of any new development projects. However, buildout of the Expansion Area would involve the development of new commercial, industrial, public facility, Plant 42, and residential uses. Development of these uses would generate increased mobile source emissions. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Mobile source emissions are emissions from vehicle trips that are generated by the operation of a project. Mobile source emissions include tailpipe and evaporative emissions. Buildout of the Expansion Area is estimated to generate approximately 127,432 average daily trips (ADT). This forecast traffic volume is based upon projected development permitted by the Land Use Element and typical land use densities within the Expansion Area. As future development within the Expansion Area would be consistent with the land use designations contained in the General Plan, the proposed project would not intensify land uses in the Expansion Area beyond conditions assumed in the General Plan. As such, buildout of the Expansion Area in accordance with the General Plan would not increase the number of vehicle trips beyond buildout conditions analyzed in the GPEIR. The GPEIR concluded that mobile air quality sources would increase significantly in the future. However, as shown in SOC Table 4.3-3 (Mobile Source Emissions Current and Buildout Emissions of Criteria Pollutants), under year 2008 conditions, buildout of the General Plan would generate slightly more VOCs (1,324 pounds/day more), but substantially less CO (108,012 pounds/day less), NOX (40,559 pounds/day less), and PM10 (161,012 pounds/day less) than predicted by the GPEIR. The reduction in buildout emissions is a reflection of the newer vehicle fleet, which contains improved emission reduction technologies and increasing regulations on fuel consumption. However due to the magnitude of the increase in emissions as a result of General Plan buildout (including buildout of the Expansion Area), mobile source emissions are considered to be significant.

Air quality impacts would be regional and not confined to the Palmdale limits. The destination of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. Future development projects within the Expansion Area would be evaluated for potential air emissions. Furthermore, all future projects would be required to satisfy applicable GPEIR mitigation measures, which point to General Plan goals, policies, and
implementation measures. Implementation of Implementation Programs D2, D3, D6, and D7, Objective ER5.1, and Policies ER5.1.1 through ER5.1.4 would reduce mobile air emissions by reducing vehicle trips. This would be achieved by adopting trip reduction ordinances, promoting alternate work schedules, telecommuting, alternative transportation options, additional park-and-ride facilities, improving traffic flow, and encouraging alternative fuel vehicles. Policies ER5.3.1 and ER5.3.2 would reduce unnecessary sources of air emissions such as emissions from idling vehicles by enforcing district programs, designing effective street systems, and identifying appropriate truck routes. Mobile source emissions would be further reduced with implementation of Policies ER5.6.1 through ER5.6.4 which ensure project-related vehicle miles traveled (VMT) are reduced, promote the creation of high occupancy vehicle lanes on SR-14, and increase the area’s jobs/housing balance to reduce commute time. Refer to Section 5.2, Transportation and Circulation, for a discussion of additional trip-reducing policies. However, due to the magnitude of anticipated Expansion Area development and associated mobile source air emissions, mobile source air quality impacts would remain significant.

STATIONARY SOURCES

Stationary source emissions are sources of air pollutants that individually emit relatively small quantities of air pollutants, but which cumulatively may emit large quantities of emissions. Stationary source emissions would result from the use of natural gas, landscape maintenance equipment, and the use of consumer products, such as aerosol sprays. Although, the project does not propose any specific development, future emissions from stationary sources associated with buildout of the Expansion Area could be significant. Various industrial and commercial processes (e.g., dry cleaning) allowed under the General Plan would also be expected to release emissions. As stated in the GPEIR, these stationary source emissions would contribute on a regional scale. The emissions from buildout of the Expansion Area in accordance with the General Plan would be expected to exceed the AVAQMD air quality thresholds (consistent with the conclusions in the GPEIR for stationary sources), resulting in a significant impact. It is noted that the thresholds of significance that have been recommended by the AVAQMD were established for individual development projects. Therefore, they do not apply to cumulative development or multiple projects. Air quality impacts would be regional and not confined to the Palmdale City limits. Future development proposals would be evaluated for potential air emissions once development details have been determined and are available. Individual projects may not result in significant air quality emissions.

All future Expansion Area industrial development projects, as permitted by the General Plan, would be required to comply with AVAQMD regulations and permitting requirements. Compliance with regulations and permit requirements would reduce emissions from new industrial uses. Further, implementation of General Plan Implementation Measure D5, and Objective ER5.5 and Policies ER5.5.1 and ER5.5.3 would further reduce stationary source emissions by promoting the use of energy efficient appliances, processes, and equipment, as well as solar energy systems. However, as concluded in the GPEIR, emissions resulting from stationary sources would remain significant due to the magnitude of development associated with public facilities, infrastructure and transportation improvements, and buildout of the Expansion Area in accordance with the General Plan.
LOCALIZED CO HOTSPOTS

Carbon monoxide (CO) emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.). To identify CO hotspots, the AVAQMD follows the SCAQMD criterion, which requires a CO microscale hotspot analysis when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service (LOS) D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. However, projected intersection capacity/queuing analyses are unknown, as no specific development proposals have yet been formulated.

The City is located in the MDAB, which is designated as an attainment area for State and Federal CO standards. There has been a decline in CO emissions even though VMT on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed carbon monoxide analysis was conducted in the Federal Attainment Plan for Carbon Monoxide (CO Plan) for the SCAQMD’s 2003 Air Quality Management Plan. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the South Coast Air Basin, and would likely experience the highest CO concentrations. Of these locations, the Wilshire Boulevard/Veteran Avenue intersection experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any locations within the City of Palmdale due to the volume of traffic that would occur as a result of future development within the Expansion Area. Therefore, impacts would be less than significant in this regard.

AIR MOVEMENT, MOISTURE, AND TEMPERATURE

The Expansion Area is located within an urbanized portion of the City and does not include and uses that would be capable of altering the local or regional climate. Further, buildout of the Expansion Area would occur in accordance with the General Plan land use designations and Zoning Districts, and would not propose any structures exceeding height limit regulations that could alter air movement. Therefore, impacts regarding air movement, moisture, temperature, and local and regional climate change would be less than significant. Refer to Section 5.4, Greenhouse Gas Emissions/Climate Change, for an analysis of potential impacts with regards to global climate change.
AVAQMD PLAN CONSISTENCY

A potentially significant impact to air quality would occur if the project would conflict with or obstruct implementation of the applicable Air Quality Plan. Although the project would represent an incremental negative impact to air quality in the MDAB, of primary concern is that project-related impacts have been properly anticipated in the regional air quality planning process and reduced whenever feasible. Therefore, it is necessary to assess the project's consistency with the 2004 Ozone Attainment Plan as well as the City's General Plan and growth forecasts. The purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with Federal and State air quality standards. It is important to note that even if a project is found consistent it could still have a significant impact on air quality under CEQA. Consistency with plans means that a project is consistent with the goals, objectives and assumptions in the respective plan to achieve the Federal and State air quality standards.

The AVAQMD CEQA and Federal Conformity Guidelines notes the following with respect to conformity impacts:

According to AVAQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines a project is consistent with applicable air quality plans if it complies with all applicable AVAQMD rules and regulations, complies with all proposed control measures that are not adopted from applicable plans, and is consistent with the growth forecasts in the applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The City's General Plan currently designates the area as Single Family Residential 2; Single Family Residential 3; Medium Residential; Multifamily Residential; Neighborhood Commercial; Office Commercial; Community Commercial; Downtown Commercial; Commercial Manufacturing; Industrial; Business Park; Airport and Related Uses; Specific Plan; Public Facility; and Open Space. Buildout of the Expansion Area would occur in accordance with the General Plan land use and Zoning designations. Therefore, project implementation would be consistent with the goals and policies provided within the City's General Plan. Thus, as 2002 was the base year utilized in the formulation of the 2004 Ozone Attainment Plan, and the project is consistent with the City's General Plan (adopted in 1993), the project is consistent with the growth forecasts utilized in the development of the applicable Air Quality Plan. Impacts in this regard would be less than significant.

IMPACT CONCLUSION

The GPEIR anticipated additional development within the City, including buildout of the Expansion Area, and associated public facilities, and infrastructure and transportation improvements. This forecast growth is consistent with the existing General Plan land use designations. The GPEIR concluded that buildout would exceed AVAQMD thresholds and result in significant impacts for operational (mobile and stationary source) emissions, as these thresholds were designed for individual projects. Therefore, on a project-by-project basis, thresholds may not be exceeded; however, operational emissions as a result of buildout of the Expansion Area, and anticipated public facilities, and infrastructure and transportation
improvements, would be expected to be significant. Air quality impacts would be regional and not confined to the Palmdale City limits, as the destination of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. Future development projects within the Expansion Area would be evaluated for potential air emissions once development details have been determined and are available. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR since the development that would occur would be consistent with the existing General Plan land use designations and Zoning Districts. Therefore, project implementation would be consistent with the analysis presented in the GPEIR, and would result in no greater air quality impacts than previously identified. Due to the amount of development that would occur due to Expansion Area buildout, and anticipated public facilities, and infrastructure and transportation improvements, consistent with the conclusions in the GPEIR, operational emissions would be expected to exceed AVAQMD thresholds. Therefore, even with implementation of General Plan Policies and adherence to AVAQMD requirements, long-term operational impacts would remain significant.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Implementation Program ER-D2:** To reduce mobile source emissions the City will implement a trip reduction ordinance. The ordinance should consider the number of Vehicle Miles Traveled (VMT) estimated to be generated from each new development project in accordance with the requirements of AVAQMD, Los Angeles County Metropolitan Transportation Authority (MTA) and other affected agencies. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

**Implementation Program ER-D3:** Also, the City should support legislation that would provide tax incentives for developers to establish work centers in housing-rich Palmdale, and vanpool tax credit legislation which includes such provisions as granting tax exempt status to compensation received for specific ridesharing programs; allowing tax deductions for employees who rideshare; and special tax credits for alternative-fuel vehicles. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

**Implementation Program ER-D5:** To reduce emissions from natural gas combustion and electricity generation, the City will incorporate the most energy-efficient design consistent with a reasonable rate of return when retrofitting existing facilities and equipment in city buildings. In addition, the City will develop a public information program on energy conservation and cooperate with utilities to encourage energy audits of existing structures, identifying levels of existing energy uses and potential conservation measures.
Implementation Program ER-D6: The City will analyze the potential for the alternative use of any public facility, which is slated to be closed or consolidated with another facility, as a neighborhood work center; this policy should be communicated to affected agencies, such as the school board and library commission.

Implementation Program ER-D7: Finally, the City will adopt appropriate ordinances relating to trip reduction, nonmotorized transportation, employer rideshare and transit incentives, parking management, merchant transportation incentives, auto use restrictions, and truck routing to both achieve compliance with the Antelope Valley Air Quality Management Plan and to implement City programs and standards. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Objective ER5.1: Minimize local air pollution caused by vehicles.

Policy ER5.1.1: Reduce work-related trips through such means as promoting alternate work schedules, telecommuting, the use of alternative modes of transportation to the workplace, and the creation of additional park-and-ride facilities.

Policy ER5.1.2: Reduce vehicle non-work trips through merchant transportation incentives and transit system improvements.

Policy ER5.1.3: Reduce vehicle emissions through maintaining and improving traffic flow as contained in the Circulation Element.

Policy ER5.1.4: As technology allows, reduce tailpipe emissions from city vehicles by replacing them with alternative fuel vehicles, and encourage reduction of emissions from private vehicles by requiring preferential parking for alternative fuel vehicles.

Policy ER5.3.1: Promote the SCAQMD’s efforts to eliminate emissions from such sources as excessive car dealership cold starts, excessive curb idling, emissions from advertising vehicles, and emissions from leaf blowers, among others, through assisting with implementation and enforcement of district programs once they are adopted.

Policy ER5.3.2: Work with Caltrans and the Los Angeles County Sheriff’s Department to minimize nonrecurrent congestion which contributes emissions from vehicle idling, by designing effective street systems and identifying appropriate truck routes.

Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent feasible.

Policy ER5.6.2: Promote the creation of high occupancy vehicle lanes on State Route 14.
Policy ER5.6.3: Reduce the number of people commuting to the Los Angeles metropolitan area by promoting actions to increase the area's jobs/housing balance.

Policy ER5.6.4: Support the development of a rail system between Palmdale and Los Angeles.

Objective ER5.5: Reduce air pollution caused by energy consumption.

Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes, and equipment, and promoting energy audits of existing structures.

Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Significant and Unavoidable Impact.

### 5.3.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY WOULD IMPACT EXISTING REGIONAL AIR QUALITY LEVELS ON A CUMULATIVE BASIS.**

**Impact Analysis:** The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to air quality is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-6. The GPEIR concluded implementation of the proposed General Plan and related projects would substantially increase air emissions in the region, which cannot be reduced to a level of insignificance.

According to the AVAQMD CEQA & Federal Conformity Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. If a project impact is individually less than significant, the impacts of the surrounding past, present and future projects must be taken into account. The thresholds of significance for cumulative impacts are the same as those for the project related impacts used in this analysis.

**CUMULATIVE SHORT-TERM CONSTRUCTION**

Buildout of the Expansion Area in accordance with the General Plan, and anticipated public facilities, and infrastructure and transportation improvements, could potentially exceed the AVAQMD emissions thresholds, which would lead to a significant contribution to emissions on a
cumulative basis. Even with implementation of General Plan Policies and mitigation measures, cumulative construction-related emissions would likely still be significant. In addition, the GPEIR determined that implementation of the General Plan (in which the Expansion Area buildout was included) would result in significant and unavoidable cumulative construction impacts due to the amount of proposed development. Also, the AVAQMD considers individual projects exceeding thresholds as also significant on a cumulative basis. Although project-specific details (i.e., timing and amount of construction occurring concurrently) are unknown at this time, due to the amount of potential development anticipated within the Expansion Area in accordance with the General Plan, and anticipated public facilities, and infrastructure and transportation improvements, short-term construction emissions are anticipated to exceed AVAQMD thresholds. Therefore, significant and unavoidable cumulative construction impacts would occur.

CUMULATIVE LONG-TERM OPERATIONAL IMPACTS

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is nonattainment, this is considered to be a potentially significant cumulative impact, due to nonattainment of O₃ and PM₁₀ standards in the MDAB. Future development in the Expansion Area, combined with other anticipated future development in the region would contribute to a cumulative annual increase in regional air pollutant emissions. As previously stated, the emissions from buildout of the Expansion Area would likely exceed the AVAQMD operational thresholds. In accordance with AVAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis. In addition, the GPEIR determined that implementation of the General Plan (in which the Expansion Area was included) would result in significant and unavoidable operational impacts. Therefore, the cumulative operational emissions associated with the proposed project are significant.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures outlined above.

Level of Significance: Significant and Unavoidable Impact.

5.3.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Project implementation would result in significant unavoidable construction, operational, and cumulative air quality impacts with implementation of the GPEIR policies and programs. If the City of Palmdale approves the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.
5.4 Greenhouse Gas Emissions/Climate Change
5.4 GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE

5.4.1 INTRODUCTION
This section evaluates the potential global climate change impacts associated with the proposed project. The proposed project’s potential direct and cumulative contribution to greenhouse gas (GHG) emissions and global climate change are analyzed. Climate change modeling and mitigation guidance is taken from numerous sources noted in the text, including the California Air Resources Board (CARB) Scoping Plan (October 2008), the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change White Paper (January 2008), and the California Attorney General recommended mitigation measures.

5.4.2 EXISTING CONDITIONS

GLOBAL CLIMATE CHANGE GASES
The natural process through which heat is retained in the troposphere is called the “greenhouse effect.”1 The greenhouse effect traps heat in the troposphere through a three fold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This “trapping” of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO₂). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. The GWP of a gas is determined using CO₂ as the reference gas with a GWP of 1.

GHGs normally associated with the proposed project include the following:2

- **Water Vapor (H₂O)**. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

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1 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers.

2 All Global Warming Potentials are given as 100 year GWP. Unless noted otherwise, all Global Warming Potentials were obtained from the Intergovernmental Panel on Climate Change. Climate Change (Intergovernmental Panel on Climate Change, Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC, 1996).
The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a Global Warming Potential for water vapor.

- **Carbon Dioxide (CO₂)**. CO₂ is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of CO₂ in the atmosphere has increased 36 percent.³ CO₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.

- **Methane (CH₄)**. CH₄ is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of CH₄ are landfills, natural gas systems, and enteric fermentation. CH₄ is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The Global Warming Potential of CH₄ is 21.

- **Nitrous Oxide (N₂O)**. N₂O is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The Global Warming Potential of N₂O is 310.

- **Hydrofluorocarbons (HFCs)**. HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The Global Warming Potential of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.⁴

- **Perfluorocarbons (PFCs)**. PFCs are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a Global Warming Potential several thousand times that of CO₂, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).⁵ The Global Warming Potential of PFCs range from 6,500 to 9,200.

- **Sulfur hexafluoride (SF₆)**. SF₆ is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change with a Global Warming Potential of 23,900. However, its global warming contribution is not as high as the Global Warming Potential

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would indicate due to its low mixing ratio compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).  

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric O₃ depleters; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- **Hydrochlorofluorocarbons (HCFCs).** HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The Global Warming Potentials of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.  

- **1,1,1 trichloroethane.** 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The Global Warming Potential of methyl chloroform is 110 times that of CO₂.  

- **Chlorofluorocarbons (CFCs).** CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the EPA’s Final Rule (57 FR 3374) for the phase out of O₃ depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with Global Warming Potentials ranging from 4,600 for CFC 11 to 14,000 for CFC 13.  

### 5.4.3 REGULATORY FRAMEWORK

**FEDERAL**

The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (EPA) to define national ambient air quality standards (national standards) to protect public health and welfare in the U.S. The FCAA does not specifically regulate GHG emissions; however, on April 2, 2007 the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the FCAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009.  

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8 Ibid.

final findings were published in the Federal Register on December 15, 2009 under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

Under the endangerment finding, the EPA Administrator found that the current and projected atmospheric concentrations of the six key well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) threaten the public health and welfare of current and future generations. Under the cause of contribute finding, the EPA Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Based on these findings, on April 1, 2010, the EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011, is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the United States. On May 13, 2010, the EPA issued the final GHG Tailoring Rule. This rule set thresholds for GHG emissions that define when permits under the Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Currently, EPA rules do not cover residential construction projects. Implementation of the Federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

STATE OF CALIFORNIA

Various statewide and local initiatives to reduce California’s contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing CARB to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

Assembly Bill 1493. In 2002, then-Governor Gray Davis signed AB 1493 (Chapter 200, Statutes of 2002, amending Section 42823 of the California Health and Safety Code and adding Section 43018.5 to the code). AB 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.”

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California’s existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR Section 1900, 1961), and adoption of Section 1961.1 (13 CCR Section 1961.1), require automobile manufacturers, beginning with the 2009 model year, to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and
medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons). The regulations would reduce GHG emissions from California passenger vehicles by about 22 percent by 2012 and about 30 percent by 2016.10

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of 13 CCR Sections 1900 and 1961, as amended by AB 1493 and 13 CCR 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al. [456 F.Supp.2d 1150, 1172, E.D. Cal. 2006]). The suit in the U.S. District Court for the Eastern District of California contended that California’s implementation of regulations that regulate vehicle fuel economy would violate various federal laws, regulations, and policies.

In January 2007, the judge hearing the case accepted a request from the California Attorney General’s office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the U.S. Supreme Court case, Massachusetts v. U.S. Environmental Protection Agency, the primary issue in question was whether the FCAA authorizes the EPA to regulate CO2 emissions. The EPA contended that the FCAA does not authorize regulation of CO2 emissions, whereas Massachusetts and ten other states, including California, sued the EPA to begin regulating CO2. As mentioned above, the U.S. Supreme Court ruled on April 2, 2007, that GHGs are “air pollutants” as defined under the FCAA and that the EPA is granted authority to regulate CO2 (Massachusetts v. U.S. Environmental Protection Agency [2007] 549 U.S. 05-1120).

On December 12, 2007, the U.S. District Court for the Eastern District of California rejected the automakers’ claim by finding that if California receives appropriate authorization from the EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law. This authorization to implement more stringent standards in California was requested in the form of a FCAA Section 209(b) waiver in 2005. Since that time, the EPA has failed to act in granting California authorization to implement the standards. The EPA denied California’s request for the waiver to implement AB 1493 in late December 2007. On January 21, 2009, CARB submitted a letter11 to EPA Administrator Jackson regarding California’s request to reconsider the waiver denial. The EPA approved the waiver12 on June 30, 2009.

Assembly Bill 32. California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in


2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using this criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 emission cap by 2020.

Executive Order S-3-05. Executive Order S-3-05 was established in 2005, in recognition of California’s vulnerability to the effects of climate change. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the Cal EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California’s resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through state incentive and regulatory programs.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the LCFS. The LCFS will reduce GHG emissions from the transportation sector in California by about 16 million metric tons (MMT) in 2020. The LCFS is designed to reduce California’s dependence on petroleum,
create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels in California. The LCFS is designed to provide a durable framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. One standard is established for gasoline and the alternative fuels that can replace it. A second similar standard is set for diesel fuel and its replacements.

The standards are “back-loaded”; that is, there are more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today’s fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the LCFS will be based on a combination of strategies involving lower carbon fuels and more efficient, advanced-technology vehicles.

Senate Bill 97. SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor’s Office of Planning and Research (OPR), which is part of the state Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA, by July 1, 2009. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010. SB 97 also removes, both retroactively and prospectively, the legitimacy of litigation alleging inadequate CEQA analysis of effects of GHG emissions in the environmental review of projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006 or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision will be repealed by operation of law on January 1, 2010; at that time, any such projects that remain unapproved will no longer be protected against litigation claims of failure to adequately address climate change issues. In the future, this bill will only protect a handful of public agencies from CEQA challenges on certain types of projects, and only for a few years time.

As set forth more fully below, in June 2008, OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible. OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in Section 15064.7 of the CEQA Guidelines that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state.

On December 30, 2009, the Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010.

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Senate Bills 1078 and 107 and Executive Order S-14-08. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Executive Order S-14-08 was signed, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the “Renewable Electricity Standard” on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO’s SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or County land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as “transit priority projects.”

The proposed project is located within the Metropolitan Transportation Authority (Metro) region. Metro has authority to develop its own SCS and APS. However, lack of state funding may undermine local efforts. For the Metro region, the current RTP is the 2008 Regional Transportation Plan: Making the Connections (dated May 2008). The next RTP is expected to occur around 2012. Therefore, implementation of an SCS or APS would not be expected to occur for at least another year.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB’s Scoping Plan contains the main strategies California will implement to reduce CO₂eq emissions by 174 million metric tons (MT), or approximately 30 percent, from the State’s projected 2020 emissions level of 596 million MT CO₂eq under a

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15 Carbon Dioxide Equivalent (CO₂eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.
business as usual (BAU)\textsuperscript{16} scenario. This is a reduction of 42 million MT CO\textsubscript{2}eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

CARB’s Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. At the time CARB’s Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB’s Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32. However, the San Francisco Superior Court has recently issued a tentative ruling, that if issued as proposed, would suspend the implementation of the Scoping Plan pending additional CEQA review.

In Association of Irritated Residents, et al. v. California Air Resources Board, et al., the Superior Court of California for the County of San Francisco (Superior Court) issued a “tentative statement of decision” (Tentative Decision) that prevents CARB from implementing a state-wide GHG regulatory program under AB 32 until the agency complies with the requirements of CEQA. The Tentative Decision partially grants a petition for a writ of mandate brought by a coalition of environmental justice organizations (Petitioners) that alleged that CARB’s Scoping Plan violated both AB 32 and CEQA. Although the Superior Court denied all claims related to AB 32, the court found that CARB: 1) failed to adequately discuss and analyze the impacts of alternatives in its proposed Scoping Plan as required by its CEQA implementing regulations; and 2) improperly approved the Scoping Plan prior to completing the environmental review required by CEQA. In upholding the Petitioners’ challenge on these two CEQA issues, the Superior Court issued a Peremptory Writ of Mandate and enjoined CARB from further implementation of the Scoping Plan until it complies with all CEQA requirements.

\textbf{5.4.4 SIGNIFICANCE THRESHOLD CRITERIA}

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the \textit{CEQA Guidelines}, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to greenhouse gas emissions. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

\begin{itemize}
  \item Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and
\end{itemize}

\textsuperscript{16} “Business as Usual” refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the “definition.” It is broad enough to allow for design features to be counted as reductions.
• Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.4.5 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS

**Threshold:** Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

**Impact Analysis:** The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). The projects and programs proposed within the Expansion Area involve public facilities, and infrastructure and transportation improvements. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Buildout of the Expansion Area in accordance with the General Plan is expected to result in increased GHG emissions; largely due to increased vehicle miles traveled (VMT), energy consumption, and waste generation. As discussed previously, increased GHG emissions could contribute to global climate change patterns and the adverse global environmental effects thereof. Direct project-related GHG emissions include emissions from construction activities, area sources, mobile sources, and indirect sources. GHG emissions associated with future developments include CO₂, N₂O, and CH₄. Buildout of the Expansion Area is not anticipated to generate other forms of GHG emissions in quantities that would facilitate a meaningful analysis. Indirect sources of GHGs from future development would include those from electricity consumption, water supply, and treatment and disposal of municipal, industrial, and other solid waste (which produces CH₄). As no specific development proposals have yet been formulated, quantifying the amount of direct and indirect GHG emissions that would result from buildout of the Expansion Area would be speculative.
Due to the amount of development that could occur in accordance with the General Plan (including 1,121,208 square feet of commercial uses, 16,642,741 square feet of industrial uses, 103,019 square feet of public facilities uses, 1,000,000 square feet of Air Force Plant 42 uses, 341 single-family residential units, and 1,391 multi-family residential units), it is anticipated that the sum of direct and indirect GHG emissions would conflict with the requirements of AB 32 to reduce statewide GHG emissions. Although buildout of the Expansion Area was considered within the General Plan EIR (GPEIR), an analysis of GHG emissions and climate change was not included. However, the City’s General Plan includes polices which inherently relate to the reduction of GHG emissions within the City. As buildout of the Expansion Area would be consistent with the General Plan, these policies would be applicable to this future development. General Plan Policies ER4.3.1 and ER4.3.4 and Implementation Program ER-S promote water conservation and recycling measures. Policies ER5.4.1, ER5.5.1, and ER5.5.3, and Implementation Programs ER-X and ER-D address energy conservation and alternative energy. Policy ER5.5.2 requires recycling in accordance with State law. Implementation of General Plan Policies ER5.6.1 through ER5.6.3 would result in reduced vehicle trips by ensuring new development reduce project-related VMT, promoting high occupancy vehicle lanes along SR-14, and increasing the jobs/housing balance within the City. Policies C2.1.2 through C2.1.6, C2.2.1 through C2.2.6, C3.1.1, C3.1.2, C3.1.3, C3.1.4, C4.2.1, and C4.2.2, and Implementation Program ER-D would reduce VMT through a variety of reduction strategies.

The California Office of the Attorney General has established recommended measures for projects to reduce GHG emissions. The proposed project would be consistent with the goals and policies of the City’s General Plan. The General Plan includes several goals and policies related to the reduction of GHG emissions. The California Attorney General’s recommendations comprehensively outline the various categories of reduction measures and provide a framework for the GHG analysis. It is noted that the measures are not necessarily exhaustive, and are not utilized as thresholds. Table 5.4-1, Project Consistency with the Attorney General’s Recommendations, further describes how General Plan Policies would reduce future development’s GHG emissions.

<table>
<thead>
<tr>
<th>Attorney General’s Recommended Measures</th>
<th>Project Compliance</th>
</tr>
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<tbody>
<tr>
<td>Smart growth, jobs/housing balance, transit-oriented development, and infill development through land use designations, incentives and fees, zoning, and public-private partnerships.</td>
<td>Compliant. Buildout of the Expansion Area anticipates the development of an additional 1,732 dwellings and 18,866,968 square feet of non-residential land uses. The employment projection associated with the non-residential land uses is approximately 16,563 jobs. Therefore, the future development would increase the jobs/housing balance ratio. The proposed project would continue to revitalize blighted areas of the Expansion Area. General Plan Policies C3.1.1 and C3.1.2 promote smart land use patterns which inherently results in reduced vehicle trips. Policy L1.1.2 provides incentives to promote infill development to consolidate development patterns.</td>
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### Table 5.4-1 (continued)

**Project Consistency with the Attorney General’s Recommendations**

<table>
<thead>
<tr>
<th>Attorney General’s Recommended Measures</th>
<th>Project Compliance</th>
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</thead>
<tbody>
<tr>
<td>Create transit, bicycle, and pedestrian connections through planning, funding, development requirements, incentives and regional cooperation; create disincentives for auto use.</td>
<td><strong>Compliant.</strong> General Plan Policies C2.1.2 through C2.1.6 would reduce VMT by promoting rideshare, providing incentives for trip reduction measures, requiring projects to contribute to City trip reduction programs, and promoting alternative means of trip reduction (i.e., telecommuting). Policies C2.2.1 through C2.2.6 promote public transit operations (including rail, bus, and shuttle) to reduce vehicle reliance. Policies C3.1.3 and C3.1.4 promote bicycle and pedestrian accessibility to decrease vehicle use. Policies C4.2.1 and C4.2.2 support regional efforts to provide high-speed and commuter rail services from Palmdale to Los Angeles. General Plan Implementation Program ER-D would implement a trip reduction ordinance and adopt other ordinances related to nonmotorized transportation, rideshare, and transit incentives.</td>
</tr>
<tr>
<td>Energy- and water-efficient buildings and landscaping through ordinances, development fees, incentives, project timing prioritization, and other implementing tools.</td>
<td><strong>Compliant.</strong> General Plan Policy ER5.4.1 promotes community awareness of the effects of climate change as well as methods to minimize generation of GHG emissions. Policy ER5.5.1 encourages energy conservation by promoting energy efficient appliances, processes, and equipment, and promotes energy audits of existing structures. Policy ER5.5.3 requires new construction to promote the use of solar energy systems by providing buildings with maximum solar access. Implementation Program ER-X supports energy consumption reduction and encourages alternative energy sources. Implementation Program ER-D would incorporate energy-efficient design when retrofitting existing City buildings and develop a public information program on energy conservation. General Plan Policies ER4.3.1 and ER4.3.4 would consider the use of reclaimed water for landscape irrigation on a City-wide basis and encourage residents and businesses to recycle water where feasible. Implementation Program ER-S examines the expansion of water reuse programs including incentives to use recycled water for irrigation. Chapter 14.05, <em>Water Efficient Landscape</em>, of the City’s Municipal Code establishes water conservation standards regarding landscaping for the City.</td>
</tr>
<tr>
<td>Waste diversion, recycling, water efficiency, energy efficiency and energy recovery in cooperation with public services districts and private entities.</td>
<td><strong>Compliant.</strong> General Plan Policy ER5.5.2 requires recycling in accordance with State law.</td>
</tr>
<tr>
<td>Urban and rural forestry through tree planting requirements and programs; preservation of agricultural land and resources that sequester carbon; heat island reduction programs.</td>
<td><strong>Compliant.</strong> General Plan Policy CD4.2.17 promotes the use of street trees to provide shade.</td>
</tr>
<tr>
<td>Regional cooperation to find cross-regional efficiencies in GHG reduction investments and to plan for regional transit, energy generation, and waste recovery facilities.</td>
<td><strong>Compliant.</strong> Refer to responses above.</td>
</tr>
</tbody>
</table>

Although buildout of the Expansion Area would be consistent with the General Plan policies related to GHG emissions reduction, GHG reductions as a result of these policies have not been quantified. In September 2010, CAPCOA released the document entitled *Quantifying Greenhouse Gas Mitigation Measures*. This guidance document primarily focuses on the quantification of project-level mitigation of GHG emissions associated with land use, transportation, energy use, and other related project areas. Various strategies also require the implementation other strategies to be effective. When these strategies are implemented together, the combination can result in either an enhancement to the primary strategy by improving its effectiveness or a non-negligible reduction in effectiveness that would not occur without the combination. The report includes background information on programs and concepts associated with the quantification of GHG emissions and addresses appropriate procedures for applying quantification methods. Currently, there are no specific development proposals that would occur under the Redevelopment Plan. The degree and extent of future project compliance with the General Plan policies and implementation measures is not yet known and the project details necessary to calculate emission reductions based on the September 2010 CAPCOA document are not available at this time.

**CONCLUSION**

Buildout of the Expansion Area in accordance with the General Plan and project improvements would promote the rehabilitation and updating of existing uses, promote the efficient use of infill parcels, and encourage the overall enhancement of the area. As previously stated, buildout of the Expansion Area is anticipated to generate a significant amount of GHG emissions due to the amount of development that would occur. However, the future developments would adhere to General Plan policies, including those addressing transportation, energy, solid waste, and water efficiency measures (which would inherently reduce GHG emissions). Also, future development projects within the Expansion Area would be required to comply with efficiency standards required by Title 24 and the 2010 Green Building Code. AB 32 requires the reduction of GHG emissions to 1990 levels that would require a minimum 28.5 percent reduction in “business as usual” GHG emissions for the entire State. Due to the amount of development associated with buildout of the Expansion Area, development of the future uses could hinder the statewide reduction goals of AB 32 on a program level basis.

The City’s process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA, as well as analysis of those projects for consistency with the goals, policies, and recommendations of the General Plan. In general, implementation of the policies in the General Plan, as well as compliance with Federal, State, and local regulations would avoid or reduce their incremental contribution to the significant worldwide increase in GHG emissions. However, for some projects it is possible that adherence to General Plan policies may not adequately avoid or reduce incremental impacts, and such projects would require additional mitigation measures. For each future discretionary project requiring mitigation (i.e., measures that go beyond what is required by existing programs, plans, and regulations), project specific measures would be identified with the goal of reducing incremental project level impacts to less than significant or the incremental contributions of a project may remain significant and unavoidable where no feasible mitigation exists. Where mitigation is determined necessary and feasible, these measures would be included in a Mitigation Monitoring and Reporting Program for the project. The measures may be updated, expanded, and refined when applied to specific future projects within the Expansion Area based on project specific design and changes in existing conditions, and local, State, and Federal laws.
The degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately determined for each specific future project at this level of analysis. Although the project includes measures that would reduce GHG emissions, there are no specific development proposals and the City is still in the process of developing a Climate Action Plan. Therefore, an accurate correlation cannot be made at this stage between GHG emissions from future development within the Expansion Area and extent of potential GHG reductions. Future development within the Expansion Area would need to be analyzed on a project-by-project basis to determine the extent of each project’s potential contribution to global climate change and appropriate mitigation measures specific to each project. Thus, operational and climate change impacts would be significant and unavoidable at this level of analysis.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Implementation Program ER-D2: To reduce mobile source emissions the City will implement a trip reduction ordinance. The ordinance should consider the number of Vehicle Miles Traveled (VMT) estimated to be generated from each new development project in accordance with the requirements of AVAQMD, Los Angeles County Metropolitan Transportation Authority (MTA) and other affected agencies. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Implementation Program ER-D3: Also, the City should support legislation that would provide tax incentives for developers to establish work centers in housing-rich Palmdale, and vanpool tax credit legislation which includes such provisions as granting tax exempt status to compensation received for specific ridesharing programs; allowing tax deductions for employees who rideshare; and special tax credits for alternative-fuel vehicles. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Implementation Program ER-D5: To reduce emissions from natural gas combustion and electricity generation, the City will incorporate the most energy-efficient design consistent with a reasonable rate of return when retrofitting existing facilities and equipment in city buildings. In addition, the City will develop a public information program on energy conservation and cooperate with utilities to encourage energy audits of existing structures, identifying levels of existing energy uses and potential conservation measures.

Implementation Program ER-D6: The City will analyze the potential for the alternative use of any public facility, which is slated to be closed or consolidated with another facility, as a neighborhood work center; this policy should be communicated to affected...
Implementation Program ER-D7: Finally, the City will adopt appropriate ordinances relating to trip reduction, nonmotorized transportation, employer rideshare and transit incentives, parking management, merchant transportation incentives, auto use restrictions, and truck routing to both achieve compliance with the Antelope Valley Air Quality Management Plan and to implement City programs and standards. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.

Implementation Program ER-S: The City should continue to monitor, along with the Los Angeles County Sanitation District, the feasibility of expanding water reuse programs. Treated wastewater is currently used to irrigate some agricultural areas growing non-food crops. With the growing population, supplies of treated water will increase. Treated wastewater might be used to irrigate roadside and commercial landscaping, in addition to agricultural lands, to help conserve Palmdale’s limited fresh water resources. The City may offer incentives to agricultural, commercial, and residential developments that use recycled water for irrigation. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER5.4.1: Promote community awareness of the effects of global warming and ozone depleting gases, as well as methods to minimize the creation of those gases, by preparing and distributing educational materials, and cooperating with AVAQMD in establishing regional programs. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes and equipment, and promoting energy audits of existing structures.
Policy ER5.5.2: Require local government, Palmdale citizens, and local businesses and industries to recycle, as mandated by state law, and to otherwise recycle to the extent possible.

Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.

Implementation Program ER-X: The City shall support programs designed to reduce energy consumption and to utilize alternative energy sources.

Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent feasible.

Policy ER5.6.2: Promote the creation of high occupancy vehicle lanes on State Route 14.

Policy ER5.6.3: Reduce the number of people commuting to the Los Angeles metropolitan area by promoting actions to increase the area’s jobs/housing balance.

Policy C2.1.2: Promote the use of ridesharing by providing safe and convenient park-and-ride facilities, accessible to mass transit facilities where available, and by providing public information programs for commuters.

Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.

Policy C2.1.4: Provide incentives for trip reduction measures.

Policy C2.1.5: Ensure compliance with the County’s Congestion Management Plan.

Policy C2.1.6: Promote alternative means of trip reduction, including telecommuting.

Policy C2.2.1: Promote public transit operations within the Planning Area, and work with transit operators to coordinate schedules, services, service routes, and fares.

Policy C2.2.2: Promote the use of public transit by facilitating dedication of access routes and construction of safe and convenient stops with sufficient parking.

Policy C2.2.3: Encourage location of bikeways and storage areas which are integrated with public transit facilities.

Policy C2.2.4: Encourage development of regional rail transit serving the Palmdale area.

Policy C2.2.5: Require provision of bus turnouts for new development, where deemed to be appropriate in consultation with the transit authority.
Policy C2.2.6: Establish a regional transportation center within the City, conveniently located to maximize access to downtown and major commercial centers, which will accommodate a variety of public transportation uses including rail, bus, and shuttle service.

Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Policy C3.1.3: Promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas.

Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Policy C4.2.1: Support regional efforts to connect Palmdale Regional Airport to Los Angeles International Airport with a high-speed rail line.

Policy C4.2.2: Support regional efforts to provide commuter rail service from Palmdale to the Los Angeles basin.

Implementation Program PS-L: The City has adopted a Solid Waste Management Plan to comply with Assembly Bill 939 (AB939), the California Integrated Waste Management Act of 1989. The AB939 Act requires cities to develop plans to divert 25 percent of all solid waste from landfill disposal by 1995, and a total of 50 percent by the year 2000. The City of Palmdale’s plan includes a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a siting section, which identifies criteria for the location of solid waste, landfills, transfer stations, recycling centers and other waste facilities. The City will implement this Plan in all activities related to waste management, and will update the Plan as needed.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Significant and Unavoidable Impact.
CONSISTENCY WITH APPLICABLE GHG PLANS, POLICIES OR REGULATIONS

Threshold: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis: The City does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the proposed project could not conflict with an adopted plan, policy, or regulation pertaining to GHGs. Thus, a less than significant impact would occur in this regard.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.4.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Greenhouse gas emissions resulting from buildout of the Expansion Area in accordance with the General Plan and related development within the City could impact greenhouse gas levels on a cumulatively considerable basis.

Impact Analysis: As stated above, buildout of the Expansion Area in accordance with the General Plan would result in a significant impact regarding GHG emissions due to the amount of development that would occur in the Expansion Area. Additionally, the Expansion Area's GHGs in combination with GHG emissions from other known and reasonably foreseeable projects would result in a much greater amount of GHG emissions. Therefore, the amount of cumulative GHG emissions would be cumulatively considerable, and would potentially hinder the intent and statewide reduction goals of AB 32. Impacts in this regard would be significant and unavoidable.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.
Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Significant and Unavoidable Impact.

5.4.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Project implementation would result in significant unavoidable project related and cumulative GHG impacts. If the City of Palmdale approves the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.
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5.5 Noise
5.5 **NOISE**

This section focuses on the potential noise and vibration impacts of the proposed project. Potential noise and vibration impacts considered in this analysis include effects that would be generated by the proposed project on nearby sensitive land uses, as well as the existing noise from adjacent uses and highways that could impact proposed land uses in the project area.

### 5.5.1 INTRODUCTION

This section evaluates existing noise conditions within the City of Palmdale and evaluates the potential for noise impacts associated with implementation of the proposed Expansion Area Amendment. This section is based upon the following resources:

- City of Palmdale General Plan Noise Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993); and

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential noise-related impacts as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.13 (Noise) (pages 4-234- through 4-251). The GPEIR concluded development under the proposed Land Use Plan would result in increased roadway noise levels, as well as increased railroad noise and air traffic. Implementation of General Plan policies and programs would reduce noise impacts to a less than significant level in most areas of the City. However, existing and proposed sensitive land uses located near the airport, railroad, or major roadways may be exposed to significant noise impacts.

### 5.5.2 EXISTING CONDITIONS

**NOISE SCALES AND DEFINITIONS**

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.
Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 5.5-1, Sound Levels and Human Response.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table 5.5-1, Noise Descriptors.

### Table 5.5-1
#### Noise Descriptors

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decibel (dB)</td>
<td>The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).</td>
</tr>
<tr>
<td>A-Weighted Decibel (dBA)</td>
<td>A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).</td>
</tr>
<tr>
<td>Equivalent Sound Level (Leq)</td>
<td>The sound level containing the same total energy as a time varying signal over a given time period. The Leq is the value that expresses the time averaged total energy of a fluctuating sound level.</td>
</tr>
<tr>
<td>Maximum Sound Level (Lmax)</td>
<td>The highest individual sound level (dBA) occurring over a given time period.</td>
</tr>
<tr>
<td>Minimum Sound Level (Lmin)</td>
<td>The lowest individual sound level (dBA) occurring over a given time period.</td>
</tr>
<tr>
<td>Community Noise Equivalent Level (CNEL)</td>
<td>A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.</td>
</tr>
<tr>
<td>Day/Night Average (Ldn)</td>
<td>The Ldn is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the Leq. The Ldn is calculated by averaging the Leq’s for each hour of the day at a given location after penalizing the “sleeping hours” (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the increased sensitivity of people to noises that occur at night.</td>
</tr>
<tr>
<td>Exceedance Level (Ln)</td>
<td>The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L01, L10, L50, L90, respectively) of the time during the measurement period.</td>
</tr>
</tbody>
</table>

Sound Levels and Human Response


HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise generally increases with the environmental sound level. However, many factors also influence people’s response to noise. The factors can include the noise character, variability of the sound level, presence of tones or impulses, and time of day of the occurrence. Additionally, non-acoustical factors, such as a person’s opinion of the noise source, ability to adapt to the noise, attitude towards the source and those associated with it, and predictability of the noise, all influence a person’s response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses range from “not annoyed” to “highly annoyed.”

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-induced hearing loss;
- Interference with communication;
- Effects of noise on sleep;
- Effects on performance and behavior;
- Extra-auditory health effects; and
- Annoyance.

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long
Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high, and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, and decreased incidence of “helping” behavior and increased incidence of “hostile” behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one’s peace of mind and the enjoyment of one’s environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community was highly annoyed. When levels exceeded 65 dBA CNEL, the percentage rose to 15 percent. Although evidence for the various effects of noise has differing levels of certainty, it is evident that noise can affect human health. Most of the effects are, to a varying degree, stress related.

**NOISE SENSITIVE RECEPTORS**

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack of it, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise. According to the Palmdale General Plan, these uses include residential (single and multi-family dwellings, mobile home parks, dormitories, and similar uses); transient lodging (including hotels, motels, and similar uses); hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care; public or private educational facilities, libraries, churches, and places of public assembly. Table 5.5-2, **Sensitive Receptors**, indicates a representative sample of the sensitive receptors within the proposed Expansion Area that could be affected by excess noise levels.
### Table 5.5-2
### Sensitive Receptors

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of Worship</td>
<td>Islamic Center of North Valley</td>
<td>42554 4th Street East</td>
</tr>
<tr>
<td></td>
<td>Cornerstone Apostolic Church</td>
<td>9324 3rd Street East</td>
</tr>
<tr>
<td></td>
<td>Sunrise Metropolitan Community Church</td>
<td>39149 8th Street East</td>
</tr>
<tr>
<td></td>
<td>Yahweh Family Christian Center</td>
<td>247 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Crossroads Community Church</td>
<td>327 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Lighthouse Miracle Christian</td>
<td>36445 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Right Spirit Fellowship Church</td>
<td>38715 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Agape Christian Fellowship Church</td>
<td>38342 6th Street East</td>
</tr>
<tr>
<td></td>
<td>Holy Cross Antiochian Orthodox</td>
<td>38201 6th Street East</td>
</tr>
<tr>
<td></td>
<td>True Vine Gospel Church</td>
<td>859 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>New Covenant Tabernacle</td>
<td>8626 9th Street East</td>
</tr>
<tr>
<td></td>
<td>World of Life Outreach Ministries</td>
<td>38514 9th Street East</td>
</tr>
<tr>
<td></td>
<td>Lighthouse Assembly</td>
<td>38500 9th Street East</td>
</tr>
<tr>
<td></td>
<td>Foursquare Church</td>
<td>8325 10th Street East</td>
</tr>
<tr>
<td></td>
<td>First Baptist Church</td>
<td>1051 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Masjid of Antelope Valley</td>
<td>1125 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Alpha &amp; Omega Spanish Church</td>
<td>38126 12th Street</td>
</tr>
<tr>
<td></td>
<td>Desert Winds Community Church</td>
<td>38117 13th Street East</td>
</tr>
<tr>
<td></td>
<td>Iglesia Missionera Antioquia</td>
<td>38111 15th Street East</td>
</tr>
<tr>
<td></td>
<td>Iglesia De Cristo Miel Av</td>
<td>1675 East Avenue Q-15</td>
</tr>
<tr>
<td></td>
<td>St. Stephens of the Valley</td>
<td>1737 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>St. Mary’s Catholic Church</td>
<td>1600 East Avenue R-4</td>
</tr>
<tr>
<td></td>
<td>Palmdale Seventh Day Adventist</td>
<td>1758 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Horizon Community Church</td>
<td>1850 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Church of Jesus Christ of Latter Day Saints</td>
<td>2120 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Universal Church</td>
<td>8678 15th Street East</td>
</tr>
<tr>
<td></td>
<td>International Church</td>
<td>1817 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>Trinity Baptist Church</td>
<td>2045 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Desert Winds Community Church</td>
<td>2121 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Church of Christ</td>
<td>2340 East Avenue Q</td>
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<tr>
<td></td>
<td>Palmdale Landmark Missionary Baptist</td>
<td>2646 East Avenue Q-4</td>
</tr>
<tr>
<td></td>
<td>Jehovah’s Witnesses</td>
<td>2620 East Avenue Q-6</td>
</tr>
<tr>
<td></td>
<td>Lord’s House Christian Church</td>
<td>38739 Glenbush Avenue</td>
</tr>
<tr>
<td>Schools</td>
<td>Brandman University</td>
<td>40015 Sierra Highway</td>
</tr>
<tr>
<td></td>
<td>Embry-Riddle Aeronautical University</td>
<td>40015 North Sierra Highway</td>
</tr>
<tr>
<td></td>
<td>Yucca Elementary School</td>
<td>38440 2nd Street East</td>
</tr>
<tr>
<td></td>
<td>Rex Parris High School</td>
<td>38801 Clock Tower Plaza Drive</td>
</tr>
<tr>
<td></td>
<td>Guidance Charter School</td>
<td>1125 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Tumbleweed Elementary School</td>
<td>1100 East Avenue R-4</td>
</tr>
</tbody>
</table>
Table 5.5-2 (continued)
Sensitive Receptors

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools (continued)</td>
<td>Cactus Elementary School</td>
<td>38060 20th Street East</td>
</tr>
<tr>
<td></td>
<td>Palmdale High School</td>
<td>2137 East Avenue R</td>
</tr>
<tr>
<td></td>
<td>Leaps &amp; Bounds Preschool</td>
<td>2026 East Avenue Q</td>
</tr>
<tr>
<td></td>
<td>Desert Sands Charter High School</td>
<td>3084 East Palmdale Boulevard</td>
</tr>
<tr>
<td></td>
<td>Desert Rose Elementary School</td>
<td>37730 27th Street</td>
</tr>
<tr>
<td></td>
<td>Wilsona Elementary School</td>
<td>38136 35th Street East</td>
</tr>
<tr>
<td>Libraries</td>
<td>Palmdale City Library</td>
<td>700 East Palmdale Boulevard</td>
</tr>
<tr>
<td>Parks</td>
<td>Desert Sands Park</td>
<td>3rd Street East &amp; East Avenue P-8</td>
</tr>
<tr>
<td></td>
<td>Doctor Robert C St. Clair Parkway</td>
<td>Along Sierra Highway</td>
</tr>
<tr>
<td>Senior Center</td>
<td>Legacy Commons</td>
<td>930 East Avenue Q-9</td>
</tr>
</tbody>
</table>

Source: Google Earth Maps accessed November 2010.

NOISE ENVIRONMENT

Mobile Noise Sources

VEHICULAR NOISE

The City’s noise environment is dominated by vehicular traffic, including vehicular generated noise along Sierra Highway and State Route 138 (SR-138) which traverse the Expansion Area, as well as State Route 14 (SR-14) and other major and primary arterials. Primary arterials that serve the Expansion Area are Avenue M, Avenue, P, Avenue Q, Avenue R, and Division Street. During peak travel hours, heavy traffic on these roadways causes higher noise levels compared to noise levels during non-peak hours. These roadways have been designed to specifically carry large volumes, although long-established land use patterns have placed residential uses along some portions of these roadways.

As part of the GPEIR, vehicular noise levels in the Palmdale area were analyzed using the Federal Highway Administration’s Highway (FHWA) traffic noise model for each study area roadway segment. The results of the analysis are summarized in GPEIR Table 3-38, Existing Roadway Noise Levels, and illustrated in GPEIR Exhibit 3-52, Existing Transportation Noise Contours. As indicated in GPEIR Table 3-38 and Exhibit 3-52, sensitive noise receptors within the Expansion Area are presently exposed to vehicular noise sources in excess of 65 CNEL.

The SOC provides updated roadway noise levels along major arterial roadways in the City, utilizing the FHWA-RD-77-108 noise prediction model. SOC Table 5.0-2 (Noise Levels of Major Arterials in Palmdale 1993 and 2005 CNEL at 50 feet) indicates that the overall noise pattern along local roadways remains similar to that experienced in 1993. Certain segments have experienced a substantial change in noise exposure over time; both decreased noise exposure as well as increased. The fluctuations are normally attributed to roadway improvements,
introduction of new land uses, and other factors that influence the number and distribution of vehicle trips.

**RAILROAD NOISE**

The Union Pacific Railroad (UPRR) Company operates two rail lines through the City, which create additional mobile noise sources in the project area: the Valley Mainline; and the Colton/Palmdale Cutoff. Additionally, two privately-owned spurs exist within the area, branching off the Valley Mainline in the vicinity of Avenues P-4 and P-8, and extending east to 15th Street East.

The Valley Mainline runs north/south and operates adjacent to Sierra Highway and bisects the Expansion Area. The Valley Mainline is utilized by both freight and commuter trains. The Southern California Regional Rail Authority (SCRRA) operates Metrolink, a regional rail system that includes commuter and other passenger services, on UPRR’s Valley Mainline. Metrolink’s Antelope Valley Line (Los Angeles Union Station to Lancaster) links communities to employment and activity centers.

The Colton/Palmdale Cutoff, located to the south of the Expansion Area, branches from the Valley Mainline south of Avenue R and runs east. The Colton/Palmdale Cutoff is utilized by freight trains. Freight and commuter rail traffic passing through the project area can generate substantial noise impacts to residents located along these railroad corridors.

As part of the GPEIR, railroad noise levels in the Palmdale area were analyzed using the U.S. Department of Housing and Urban Development Noise Assessment Guidelines. GPEIR Exhibit 3-52 illustrates the noise contours associated with the UPRR lines. As indicated in GPEIR Exhibit 3-52, sensitive noise receptors within the Expansion Area are presently exposed to railroad-related noise sources in excess of 65 CNEL. It is noted, GPEIR Exhibit 3-52 is based on the noise data that was available at the time of document preparation.

**AIRCRAFT NOISE**

The U.S. Air Force Plant 42 (Plant 42) is located in the northern portion of the Expansion Area, east of Sierra Highway and north of Avenue P. Aircraft takeoff, flyovers/over flights, and approach/landings contribute to the City’s noise environment.

As part of the GPEIR, aircraft noise data for Plant 42 was provided by the Department of the Air Force (AFSC Master Plan Air Installation Compatible Use Zone Map, August 1990). GPEIR Exhibit 3-52 illustrates the noise contours associated with Plant 42 operations. As indicated in GPEIR Exhibit 3-52, sensitive noise receptors within the Expansion Area may experience noise impacts from Plant 42 operations. The SOC includes updated noise contours for Plant 42. The SOC indicates that noise exposure due to operations at Plant 42 has decreased since 1990. The areas experiencing the greatest noise reduction are north and east of the airfield and west/northwest of the airfield beyond Sierra Highway. The noise reduction is attributed to a different mix in aircraft, as well as the introduction of newer aircraft at Plant 42.
Stationary Noise Sources

The primary noise sources associated with commercial and industrial land uses are caused by delivery trucks, heavy machinery, air compressors, generators, outdoor loudspeakers, and gas venting. Commercial and industrial land uses located near noise-sensitive receptors such as residences, schools, and hospitals currently generate occasional noise impacts. Fire and police department operations, park facilities, school sites, and residential uses can also contribute to the ambient noise environment. Other significant stationary noise sources in the project area include noise from street sweepers and gas-powered leaf blowers. Ongoing noise from construction activities throughout the City also adds to the City's ambient noise environment. These types of stationary noise sources have the potential to affect noise-sensitive receptors.

Existing Noise Levels

The SOC includes a comparison of the community noise measurements conducted for the General Plan/GPEIR and updated measurements for the SOC; refer to Table 5.5-3, Community Noise Measurements – 1993 and 2006. As shown, the $L_{50}$ remains similar at each monitoring location. All measured levels were below the 65 dBA threshold established by the General Plan.

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Land Use</th>
<th>Year</th>
<th>$L_{\text{max}}$</th>
<th>$L_{50}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Commercial</td>
<td>1993</td>
<td>99</td>
<td>63.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>96.8</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Agricultural/Industrial</td>
<td>1993</td>
<td>92</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>94.5</td>
<td>61.5</td>
</tr>
<tr>
<td>3</td>
<td>Commercial</td>
<td>1993</td>
<td>72</td>
<td>57.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>96.6</td>
<td>61.6</td>
</tr>
<tr>
<td>4</td>
<td>Residential/Open Space</td>
<td>1993</td>
<td>79.5</td>
<td>59.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>97.7</td>
<td>54.6</td>
</tr>
<tr>
<td>5</td>
<td>Residential</td>
<td>1993</td>
<td>53.5</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>94.9</td>
<td>56.4</td>
</tr>
</tbody>
</table>


5.5.3 REGULATORY FRAMEWORK

STATE OF CALIFORNIA GUIDELINES

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services, as shown in Table 5.5-4, Noise and Land Use Compatibility Matrix.
Table 5.5-4
Noise and Land Use Compatibility Matrix

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Community Noise Exposure (Ldn or CNEL, dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normally Acceptable</td>
</tr>
<tr>
<td>Residential - Low Density, Single-Family, Duplex, Mobile Homes</td>
<td>50 - 60</td>
</tr>
<tr>
<td>Residential – Multiple Family</td>
<td>50 - 65</td>
</tr>
<tr>
<td>Transient Lodging - Motel, Hotels</td>
<td>50 - 65</td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Auditoriums, Concert Halls, Amphitheaters</td>
<td>NA</td>
</tr>
<tr>
<td>Sports Arenas, Outdoor Spectator Sports</td>
<td>NA</td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water Recreation, Cemeteries</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Office Buildings, Business Commercial and Professional</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Industrial, Manufacturing, Utilities, Agriculture</td>
<td>50 - 75</td>
</tr>
</tbody>
</table>

Source: Office of Planning and Research, California, General Plan Guidelines, October 2003.

NA: Not Applicable

- Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
- Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- Clearly Unacceptable – New construction or development should generally not be undertaken.

The guidelines rank noise land use compatibility in terms of “normally acceptable”, “conditionally acceptable”, “normally unacceptable”, and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial and professional uses.

CITY OF PALMDALE GENERAL PLAN

The Noise Element is intended to comply with the state mandate, to provide an easily understood discussion of noise and its impacts, and to set guidelines to prevent noise and land use conflicts. Goal N1 of the Noise Element is to minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process. To this end, the City intends to utilize appropriate land use planning as the primary method of achieving noise compatibility among adjacent land uses (Objective N1.1). The City also intends to protect and maintain those areas having acceptable noise environments (Objective N1.2).
CITY OF PALMDALE MUNICIPAL CODE

Pursuant to Palmdale Municipal Code (PMC) Chapter 9.18, Disturbing, Excessive, Loud, or Offensive Noise, it shall be unlawful for any person to willfully make or continue, or cause or permit to be made or continued, any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensiveness residing in the area. The City does not yet have a Noise Ordinance; therefore, the State land use compatibility noise standards identified in Table 5.5-4 are utilized by the City.

Also, according to PMC Chapter 8.28, Building Construction Hours of Operation and Noise Control, no person shall perform any construction or repair work on Sunday, or any other day between the hours of 8:00 PM and 6:30 AM, in any residential zone, or within 500 feet of any residence, hotel, motel, or recreational vehicle park, unless permission is granted by the City Engineer. However, the City does not have a significance threshold to assess noise impacts during construction for CEQA determinations of noise impacts. Construction noise is a short-term temporary event, occurs mostly during daytime hours (such as 6:00 AM to 3:00 PM), and is considered a common necessity for new development.

**5.5.4 SIGNIFICANCE THRESHOLD CRITERIA**

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to noise. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Expose people to severe noise levels because it is adjacent to a freeway;
- Expose people to severe noise levels because it is within 200 feet of the railroad;
- Expose people to severe noise levels because it is adjacent to an exiting or future arterial street;
- Within the Plant 42 over-flight area, or the 65 CNEL boundary; Section 8.0, Effects Found Not to be Significant; and
- Generate a noise level exceeding 65 CNEL at the project boundary after construction that could significantly impact an adjoining land use.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.
5.5.5 IMPACTS AND MITIGATION MEASURES

VEHICULAR NOISE SOURCES

Threshold: If the project is residential or noise sensitive, will it expose people to severe noise levels because it is adjacent to an existing or future arterial street?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

The results of the analysis conducted as part of the GPEIR are presented in GPEIR Exhibit 3-52, Existing Transportation Noise Contours, which illustrates the transportation-related noise contours. Future development within the proposed Expansion Area in accordance with the General Plan would result in the development of residential or noise sensitive land uses. A review of GPEIR Exhibit 3-52 indicates that, depending on their proposed location, development of sensitive noise receptors within the proposed Expansion Area may expose people to severe noise levels from existing traffic volumes, because of their proximity to roadways.

Table 5.2-4, Project Land Use Trip Generation, presents the estimated number of average daily trips (ADT) generated from development of the proposed Expansion Area in accordance with the General Plan and indicates development within the proposed Expansion Area is forecast to generate an estimated 127,432 ADT. The project’s forecast traffic growth volumes would permanently increase the ambient noise levels within the Expansion Area and surrounding community. Depending on the size and location of future development, the increase in traffic may or may not create significant impacts for noise sensitive receptors. To determine noise levels and project-related impacts, specific information is needed for a particular project.

SOC Table 5.0-3 (Predicted Noise Contours for Major Arterials 2005 and 2035 at 50 feet) shows the noise levels for 2006 and the GPEIR predicted noise levels for 2035. SOC Figure 5.0-2 (Roadway Noise Contours) depicts the 60 dBA and 65 dBA CNEL contours along major arterial roadways. Approximately 1,439 acres of land along the studied arterials are located within the 65 dBA noise contour (level considered normally acceptable for residential uses by the General Plan). Of the 1,439 acres, approximately 50 percent represents industrial and commercial land uses, which are considered to be less noise sensitive. The SOC predictions, which take into consideration the changes that have occurred between 1993 (when the General Plan was prepared) and 2009 (when the SOC was prepared), are similar to the predictions of the GPEIR.
The City would require acoustical analysis reports for future development projects within the Expansion Area that would be located within existing or future 60 CNEL impact areas or as deemed necessary by the City. The acoustical analysis reports would consider existing and future ambient and project related noise levels. Acoustical analysis reports would evaluate the impacts of the existing and forecast noise levels on a proposed project, as well as the project’s impact upon the existing noise environment. The Planning Department would evaluate projects to ensure that noise sensitive land uses would not be located adjacent to significant noise sources, when exceeding acceptable levels. Where appropriate, the City would require acoustical analysis reports to include acoustical design for residential development adjacent to freeways or major arterials, in order to achieve the appropriate interior and exterior noise levels through sound insulation, or other means, as indicated in General Plan Table N-3.

Overall, future development within the proposed Expansion Area in accordance with the General Plan would be required to comply with City, State and Federal guidelines regarding vehicle noise, and noise abatement and insulation standards. This would ensure that noise levels in the project and surrounding areas are maintained within acceptable standards that prevent excessive disturbance, annoyance, or disruption. Additionally, future development in accordance with the General Plan would be subject to compliance with the GPEIR Policies outlined below, which are intended to minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process (Noise Element Goal N1). Therefore, following compliance with Federal, State, and local standards and GPEIR Policies, project implementation would result in less than significant impacts involving the exposure of people to severe noise levels because their proximity to existing or future roadways.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy N1.1.1: Locate noise compatible land uses near existing and future air, rail and highway transportation noise sources.

Policy N1.1.2: Restrict noise sensitive land uses near existing or future air, rail or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N1.1.4: Consider the noise environment when making land use decisions with respect to the guidelines contained in Table N-1, and require noise standards consistent with the criteria listed on Table N-3. The State Recommended Acceptable Noise Guidelines, listed in [General Plan] Table N-1, are provided as guidelines only, and are not represented as standards.

Policy N1.2.3: Utilize any or all of the following measures in order to maintain acceptable noise environments throughout the City:
1. Control of noise at its source, including noise barriers and other muffling devices built into the noise source.

2. The provision of buffer areas and/or wide setbacks between the noise source and other development.

3. The reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad).

4. The use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels.

5. Designation of appropriate land uses adjacent to known noise sources.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**RAILROAD NOISE**

**Threshold:** If the project is residential or noise sensitive will it expose people to severe noise levels because it is within 200 feet of the railroad?

**Impact Analysis:** The eastern and southern portions of the Expansion Area are located adjacent to the UPRR lines. GPEIR Exhibit 3-52 illustrates the existing noise contours associated with the UPRR lines (at the time of document preparation). Noise sources associated with the railroad and Sierra Highway have overlapping noise contours resulting in substantial noise impacts. Project implementation involves the development of an additional 1,732 residential dwelling units. A review of GPEIR Exhibit 3-52 indicates that noise sensitive receptors developed within the eastern and southern portions of the Expansion Area may be exposed to existing railroad-related noise sources in excess of 65 dB CNEL.

Project implementation involves the development of residential dwelling units and 18.9 million square feet of non-residential uses, which would increase freight volumes and commuter train travel, with resultant increases in railroad-related noise. Therefore, future development within the proposed Expansion Area in accordance with the General Plan may expose residential or other noise sensitive uses to severe future noise levels associated with the railroad.

As previously noted, the City would require acoustical analysis reports for future development projects within the Expansion Area that would be located within existing or future 60 CNEL impact areas or as deemed necessary by the City. The Planning Department would evaluate projects to ensure that noise sensitive land uses would not be located adjacent to noise sources such as rail lines, when exceeding acceptable levels. Where appropriate, the City would require acoustical analysis reports to include acoustical design for residential development adjacent to railroads, in order to achieve the appropriate interior and exterior noise levels through sound insulation, or other means, as indicated in General Plan Table N-3. Future development within
the proposed Expansion Area in accordance with the General Plan would be required to comply with City, State and Federal guidelines regarding railroad noise, and noise abatement and insulation standards. This would ensure that noise levels in the project and surrounding areas are maintained within acceptable standards that prevent excessive disturbance, annoyance, or disruption. Additionally, future development would be subject to compliance with the GPEIR Policies outlined below, which are intended to minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process (Noise Element Goal N1). Therefore, following compliance with Federal, State, and local standards and GPEIR Policies, project implementation would result in less than significant impacts involving the exposure of people to severe noise levels because their proximity to rail lines.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to GPEIR Policies N1.1.1, N1.1.2, N1.1.4, N1.2.3 outlined above, and the following:

Policy N1.2.4: Where deemed appropriate based upon available information, acoustical analysis and appropriate mitigation for noise-sensitive land uses should be required in areas which may be adversely impacted by significant intermittent noise sources. Such noise sources may include but not be limited to railroads, racetracks, stadiums, aircraft overflights and similar uses.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

LONG-TERM OPERATIONAL IMPACTS - STATIONARY SOURCES

Threshold: Would the project generate a noise level exceeding 65 CNEL at the project boundary after construction that could significantly impact an adjoining land use?

Impact Analysis: Future development and redevelopment activities within the proposed Expansion Area in accordance with the General Plan would occur on vacant land as well as on infill sites that are adjacent to existing development. Project implementation would result in the development of commercial, industrial, and residential uses within the Expansion Area. Although it is not anticipated that future development would generate noise levels exceeding 65 CNEL at the project boundary after construction, there is the potential for noise impacts to occur that may impact an adjoining use.

Project implementation would result in the development of approximately 18.9 million square feet of non-residential uses, including commercial and industrial land uses. Noise generally produced in commercial areas includes slow moving truck deliveries, parking areas, landscape maintenance, etc. New industrial uses could increase noise levels in their proximity due to
The continual presence of heavy trucks, equipment utilized in the manufacturing or machining process, and other on-site vehicle-related noise.

Project implementation would result in the development of non-residential land uses that could generate long-term noise levels exceeding 65 CNEL at the project boundary and significantly impacting an adjoining land use. In compliance with Policy N1.1.3, when proposed stationary noise sources could exceed an exterior noise level of 65 CNEL at present, or could impact future noise sensitive land uses, the City would require preparation of an acoustical analysis and mitigation measures to reduce noise levels to no more than 65 CNEL exterior and 45 CNEL interior. Future development within the proposed Expansion Area would be required to comply with City, State and Federal guidelines regarding noise abatement and insulation standards. This would ensure that noise levels in the project and surrounding areas are maintained within acceptable standards that prevent excessive disturbance, annoyance, or disruption. Additionally, future development would be subject to compliance with the GPEIR Policies outlined below, which are intended to minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process (Noise Element Goal N1). Therefore, following compliance with Federal, State, and local standards and GPEIR Policies, project implementation would result in less than significant impacts after construction involving noise levels at the project boundary from stationary noise sources.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to GPEIR Policies N1.1.4 and N1.2.3 outlined above, and the following:

**Policy N1.1.3:** When proposed stationary noise sources could exceed an exterior noise level of 65 dBA CNEL at present, or could impact future noise sensitive land uses, require preparation of an acoustical analysis and mitigation measures to reduce noise levels to no more than 65 dBA CNEL exterior and 45 dBA CNEL interior; if the noise level cannot be reduced to these thresholds through mitigation, the new noise source should not be permitted.

**Policy N1.2.1:** Locate new major noise sources in areas containing existing noise sources, and avoid their location adjacent to noise sensitive land uses unless a finding can be made, based on evidence in the record, that the placement of the new noise source will not result in adverse impacts to the existing noise sensitive land use.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
5.5.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVELY CONSIDERABLE NOISE IMPACTS FROM MOBILE (VEHICULAR AND RAILROAD) AND STATIONARY NOISE SOURCES.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to noise is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-18. The analysis concluded that cumulative noise impacts associated with development buildout under the General Plan and related projects would be reduced to a less than significant level with the use of buffers and other mitigations.

CUMULATIVE MOBILE NOISE SOURCES

GPEIR Table 4-23 (Future Roadway Noise Levels) and General Plan Exhibit N-5 (Future Noise Contours), as well as SOC Table 5.0-3 (Predicted Noise Contours for Major Arterials 2005 and 2035 CNEL at 50 feet) and SOC Figure 5.0-2 (Roadway Noise Contours) present the projected noise levels for various roadway segments at General Plan buildout. As indicated in GPEIR Table 4-23, General Plan Exhibit N-5, SOC Table 5.0-3, and SOC Figure 5.0-2, various modeled roadway segments would generate noise levels greater than or equal to 65 CNEL at 50 feet from centerline. The GPEIR concluded that noise level impacts on residential and other noise sensitive land uses located adjacent to major arterials and rail lines would be considered significant. The GPEIR also concluded implementation of mitigation measures would reduce noise impacts from General Plan buildout to a less than significant level for most areas, however, existing and proposed sensitive land uses located near major roadways and rail lines may be exposed to significant noise impacts.

CUMULATIVE STATIONARY NOISE SOURCES

The GPEIR concluded that commercial and industrial uses are not a citywide problem, however, isolated noise problems occur where commercial/industrial uses are located near a noise-sensitive land use. The GPEIR also concluded implementation of mitigation measures would reduce noise impacts from General Plan buildout to a less than significant level for most areas. The City would require acoustical analysis reports for future development projects that would be located within existing or future 60 CNEL impact areas or as deemed necessary by the City. Additionally, in compliance with Policy N1.1.3, when proposed stationary noise sources could exceed an exterior noise level of 65 CNEL at present, or could impact future noise sensitive land uses, the City would require preparation of an acoustical analysis and mitigation measures to reduce noise levels to no more than 65 CNEL exterior and 45 CNEL interior. All future development within the City would be required to comply with City, State and Federal guidelines regarding mobile noise, and noise abatement and insulation standards, and the GPEIR Policies outlined above.
Buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project's noise impacts from mobile and stationary sources are based upon the development permitted by the Land Use Plan. As such, increased noise levels from mobile and stationary sources within the project area were anticipated in the GP/GPEIR. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR, and would result in no greater impacts involving mobile and stationary sources than previously identified. Therefore, cumulative noise impacts from mobile and stationary noise sources would be considered less than significant.

**Mitigation Programs:**

*GPEIR Mitigation Measures and Policies:* Refer to the GPEIR Mitigation Measures and Policies outlined above.

*Project Mitigation Measures:* No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.5.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Compliance with the Federal, State, and local noise standards, and the GPEIR Policies outlined above would reduce noise-related impacts from mobile and stationary sources to less than significant levels. No significant unavoidable impacts have been identified.
5.6 Geology and Soils
5.6 GEOLOGY AND SOILS

5.6.1 INTRODUCTION

This section evaluates the geologic and seismic conditions within the City of Palmdale and evaluates the potential for geologic and seismic hazard impacts associated with implementation of the proposed Expansion Area Amendment. This section is based upon the following resources:

- City of Palmdale General Plan Safety Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993); and

The GPEIR provides baseline existing conditions based on the data available at the time of document preparation. The SOC Report evaluates the changes that have occurred in the City from the time the GPEIR was prepared and is incorporated as appropriate.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with geology and soils resulting from full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.1 (Geologic Hazards) (pages 4-22 through 4-39) and GPEIR Section 4.2.12 (Risk of Upset) (pages 4.217 through 4-226). The GPEIR concluded the following regarding General Plan buildout:

- Due to the City’s proximity to the San Andreas fault, potential impacts associated with a major earthquake cannot be mitigated to a less than significant level. It is anticipated that in the event of a major earthquake along this fault, significant damage within the City would occur. This impact was considered significant and unavoidable.

- Potential geological impacts associated with slope stability, soil expansion, soil erosion, soil infiltration, soil settlement, subsidence, and hydrocompaction would be reduced to a less than significant level with the implementation of General Plan policies and programs and site-specific mitigation measures identified for individual development projects. This impact was concluded to be less than significant.
5.6.2 EXISTING CONDITIONS

GEOLOGY

The Antelope Valley is part of the Mojave structural block, an elevated desert lying between 2,300 and 3,500 feet above mean sea level (msl). The Tehachapi Mountain Range is on the north and northwest and the San Gabriel, Sierra Pelonas, and the Liebre Mountains are south and southwest of the Antelope Valley. The Antelope Valley is bounded by two faults, the San Andreas to the south and the Garlock fault to the north. The City of Palmdale is made up of gently sloping topography on alluvial fans of the valley floor in the central and northeastern portions of the City and moderately steep slopes on the foothills, mountains, and fault scarps in the western and southern portions of the City.

SOILS

GPEIR Exhibit 3-1 (Soils Associations) identifies the soils associations within the City. The proposed Expansion Area is comprised of the Hesperia-Rosamond-Cajon and Adelanto soil associations.

The Hesperia-Rosamond-Cajon association formed in alluvium from granitic rock and is found on Holocene alluvial fans. The association consists of very deep soils that have loamy and silty clay loam surfaces found on nearly level to sloping grounds and which are moderately well to excessively drained.

The Adelanto association is found on nearly level to gently sloping grounds on alluvial fans and terraces. It is made up of well-drained and very deep soils with a loamy sand or gravelly sandy loam surface layer. The soils formed in alluvium from granitic rock.

FAULTS AND FAULT ZONES

An earthquake fault is a fracture in the crust of the earth along which land on one side has moved relative to land on the other side. Most faults are the result of repeated displacements over a long period of time. A fault trace is the line on the earth’s surface defining the fault.

An active fault is defined by the State Mining and Geology Board as a fault that has “had surface displacement within Holocene times (about the last 11,000 years).” This definition does not mean that faults lacking evidence of surface displacement within Holocene times are necessarily inactive. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity is sometimes difficult to obtain and locally may not exist. A potentially active fault is a fault that shows evidence of surface displacement during Quaternary time (last 1.6 million years). Active faults and historically destructive earthquakes are generally characteristic of southern California. The City is located in a seismically active region.

GPEIR Exhibit 3-8 (Major Faults Near Palmdale) and GPEIR Exhibit 3-10 (Earthquake Faults in the Region) illustrate the locations of the local and regional faults. Additionally, SOC Figure 2.0-2 (Alquist Priolo Zones) illustrates the relative location of Alquist Priolo Earthquake Fault Zones within the City.
Review of these exhibits indicates the San Andreas Fault and the Cemetery Fault (a major fault trace of the San Andreas system) are located south of the southernmost portion of Expansion Areas A and B. Other active faults include the San Fernando, Sierra Madre, Garlock, Owens Valley, and White Wolf faults. Additionally, a number of faults are located near Palmdale and in the Southern California region.

Earthquake Fault Zones are regulatory zones around active faults. The zones are defined by turning points connected by straight lines. Most of the turning points are identified by roads, drainages, and other features on the ground. The zones vary in width, but average about one-quarter mile wide. As indicated on SOC Figure 2.0-1, an Alquist-Priolo Earthquake Fault Zone (i.e., San Andreas system) is located just south of Avenue R, within approximately 600 feet of the project area’s southern boundary; refer also to the Fault Rupture and Alquist-Priolo Earthquake Fault Zoning Act Sections below for further discussion.

**San Andreas Fault Zone**

The San Andreas Fault is considered the main element of the boundary between the Pacific and the North American Plate tectonic plates. The fault extends approximately 746 miles in length. This fault has a right-lateral strike-slip movement with a slip rate of 20 to 35 mm/yr.

This active fault has generated the largest known earthquakes in California. The 1857 Fort Tejon earthquake (magnitude 7.9) is the most recent earthquake on the San Andreas Fault. This earthquake caused a rupture extending approximately 225 miles, with a maximum surface offset at 30 feet. The San Andreas Fault is considered capable of generating an earthquake of magnitude 8.0.1

Several fault traces branch off from the primarily fault within the San Andreas Rift Zone. Within the Palmdale area, major fault traces for the San Andreas system include the Cemetery Fault, Nadeau Fault, and Littlerock Fault. Movement on the San Andreas Fault may activate one or all of these subsidiary faults; refer to GPEIR Exhibit 3-9 and SOC Figure 2.0-1.

**San Fernando Fault Zone**

The San Fernando Fault is located approximately 24 miles southeast of Palmdale. Movement on this fault occurs as a thrust. This fault dips toward the north. The slip rate is not well known, but trenching studies indicate recurrence interval as between 100 and 300 years. The last major rupture, known as the Sylmar Earthquake, broke the surface in the Sylmar-San Fernando Area on February 9, 1971. The total surface rupture was roughly 12 miles long with a maximum slip up to six feet. The San Fernando Fault Zone is considered capable of generating earthquakes with a magnitude of 6.8.2

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1 Southern California Earthquake Data Center: http://www.data.scec.org/fault_index/sanandre.html (accessed October 12, 2010).
2 Ibid.
Sierra Madre Fault Zone

The Sierra Madre fault is located at the base of the San Gabriel Mountains approximately 20 miles south of the City. It extends approximately 55 miles in length from San Fernando on the west to San Dimas-Claremont on the east. The Sierra Madre Fault Zone is classified as a “master” fault zone and consists of five primary segments and thousands of feet of vertical and significant left-lateral offsets located along the base of the San Gabriel Mountains and southward up and over the San Gabriel Mountains. The total length of the main fault segments in this zone (the Sierra Madre Fault) is approximately 47 miles, with each segment measuring approximately 10 miles in length.

The Sierra Madre Fault Zone segments consist of north-dipping reverse thrust faults. The slip rate is between approximately 0.36 and 4.0 mm/yr and may be greater at its western terminus of the fault. The Sierra Madre Fault Zone is considered capable of generating earthquakes with a magnitude of 7.2.3

Garlock Fault Zone

The Garlock fault is located approximately 30 miles to the northwest of the City. The fault extends 200 miles northeast from Castaic Lake through the Tehachapi Mountains. It is a northeast trending fault system with a left lateral displacement. The interval between major ruptures is identified as between 200 and 3,000 years. The most recent earthquake along the Garlock fault zone was a magnitude 5.7 near the town of Mojave in July 1992. The Garlock Fault Zone is considered capable of generating earthquakes with a magnitude of 7.6.4

White Wolf Fault Zone

The White Wolf fault is located approximately 60 miles to the northwest of the City. It is a northwest trending fault that extends approximately 50 miles. The fault was discovered in July 1952 when it generated a magnitude 7.7 earthquake which produced surface faulting and vertical and lateral displacement. The White Wolf Fault Zone is considered capable of generating earthquakes with a magnitude of 7.5.5

Owens Valley Fault Zone

The Owens Valley fault is located approximately 60 miles to the northeast of the City. It extends approximately 68 miles in a north-south direction. The last major rupture occurred in March 1872 and was a magnitude 8.0. The Owens Valley Fault is considered capable of generating earthquakes with a magnitude 8.2.6

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3 Ibid.
4 Ibid.
5 Ibid.
6 Ibid.
SEISMIC HAZARDS

There are potential primary and secondary seismic hazards associated with earthquakes. The primary seismic hazard associated with earthquakes is strong ground shaking. The secondary seismic hazards are surface fault rupture, ground failure (i.e., earthquake-induced land sliding, fracturing/cracking/fissuring, and liquefaction), and tsunamis/seiche. The following discussion addresses the primary and secondary seismic hazards.

**Groundshaking**

Groundshaking is the motion felt on the earth’s surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. Expected seismic shaking zones for an earthquake with a magnitude of 8.0 or more are illustrated on GPEIR Exhibit 3-9. As illustrated on GPEIR Exhibit 3-9, the proposed Expansion Area (and the majority of the City) is located within Seismic Shaking Zone 1. Seismic Zone 1 is defined as areas most likely to experience severe accelerations greater than 0.5 gravity.

The degree of groundshaking that would occur in the City is dependent on the particular fault, fault location, distance from the City, and magnitude of the earthquake. Additionally, the soil and geologic structure underlying the City influences the amount of damage that the City may experience. When subjected to intense force from an earthquake, well-designed framed structures may be shifted off their foundations and a substantial number of buildings may suffer partial collapse. Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock. Tilt-up structures, unreinforced masonry buildings, older buildings, buildings over four levels, and mobile homes are particularly susceptible to earthquake damage. Concrete tilt-ups built prior to 1974 may also be particularly susceptible to damage. Other structures are also vulnerable to earthquake damage.

**Surface Fault Rupture**

Surface fault rupture occurs when movement on a fault deep within the earth breaks through to the surface. A surface fault rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures, because they are accompanied by shaking. Fault creep is the slow rupture of the earth's crust. Offsets of underlying strata from fault rupture can cause displacement in the foundation, causing buildings to crack and split, and causing utility lines to break. As indicated on GPEIR Exhibit 3-9 and SOC Figure 2.0-2, the San Andreas system, which is an Alquist-Priolo Earthquake Fault Zone, is located approximately 600 feet south of the project area’s southern boundary; refer to the Alquist-Priolo Earthquake Fault Zoning Act Section below for further discussion. According to the GPEIR, immense structural damage and loss of life could occur in buildings less than one mile (5,280 feet) from the fault.

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7 The Seismic Shaking Zones defined by GPEIR Exhibit 3-9 are locally designated, whereas the Seismic Zones defined by the International Code Council are nationally designated; refer to the Seismic Hazards Mapping Act Section below.
Earthquake-Induced Landsliding

Earthquake-induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Several communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes.

GPEIR Exhibit 3-2 (Slope Categories) and SOC Figure 2.0-3 (Slope Aspect), characterizes the proposed Expansion Area as having slopes of 15 percent or less. According to the USGS 7.5-Minute Palmdale Quadrangle (1974), the project area contains no major landforms and is relatively flat, sloping slightly from the southwest to the northeast. Additionally, the City has established special study zones in known hazardous areas, including areas of steep slopes, in order to identify the need for in depth studies before allowing development within these areas; refer to General Plan Exhibit LU-4 (Hazard Zones). Review of General Plan Exhibit LU-4 indicates the project area is not located within an established special study zone involving steep slopes. SOC Figure 2.0-4 (Landslide Hazard Zones), identifies areas of the City having known landslide hazards. As indicated in Figure 2.0-4, no known landslide hazard areas occur within the proposed Expansion Area. The proposed Expansion Area does not contain slopes of 10 percent or greater and is not located within a known landslide hazards area; therefore, there is no potential for earthquake-induced landsliding (or landsliding in general) to occur within the project area.

Fracturing, Cracking, and Fissuring

Groundshaking, settling, compaction, and sliding produce irregular fractures, cracks, and fissures ranging from a few inches to many feet in length. Such fractures may displace soil and earth in a manner similar to faults. Fractures of this type are rare in bedrock, but are most significant in weathered rock, alluvium, and alluvial basins up to 75 to 80 miles from the epicenter of a great earthquake surface. Fracturing, cracking, and fissuring may occur within the proposed Expansion Area given the seismic setting described above.

Liquefaction and Lateral Spreading

Liquefaction is a hazard associated with intense ground shaking. During seismic events, the earth accelerates and soils can destabilize, particularly when sufficient water is present in the soil. The destabilized soil and water can mix, resulting in liquefaction. Liquefaction is generally associated with shallow ground water conditions and the presence of loose and sandy soils or alluvial deposits. According to GPEIR Exhibit 3-13 (Aquifers and Groundwater Surface), the groundwater level within the proposed Expansion Area is in excess of 100 feet below the surface. Therefore, the conditions conducive to potential liquefaction are not present in the project area. Further, SOC Figure 2.0-4 (Landslide Hazard Zones) does not identify the proposed Expansion Area as being located within an area of the City subject to liquefaction.

Lateral spreading results from liquefaction or plastic deformation of soil occurring on gently sloping ground during an earthquake. The conditions occur when blocks of mostly intact surficial soil are displaced down slope along a sheer zone that has formed within liquefied sediment. Due to the City’s relatively flat topography and lack of significant slopes in the
northern and central portions of the City, the project area is not subject to lateral spreading conditions.

**Tsunamis and Seiches**

A tsunami is a seismic sea-wave caused by sea-bottom deformations that are associated with earthquakes, landslides, or volcanic activity beneath the ocean floor. The hazard from tsunamis is considered to be remote given that the City is located sufficiently inland; refer to the Seismic Hazards Mapping Act Section for further discussion.

A seiche is defined as a wave that oscillates in lakes, bays, or gulfs from a few minutes to a few hours, as a result of seismic or atmospheric disturbances. A seismic water wave may occur at Lake Palmdale. According to the General Plan, the wave could run up the slope and overtop the dam. However, a reflection of the wave on return is unlikely. The wave volume above the dam would not be substantial enough to cause damaging floods.

**GEOLOGIC HAZARDS**

Potential geologic hazards include slope instability, subsidence, differential settlement, soil expansion, and soil erosion.

**Landslides/Slope Instability**

The proposed Expansion Area is located on relatively flat topography and is not located adjacent to steep slopes or areas that would otherwise be subject to landslides, debris flow, and/or rock fall. As discussed in detail in the *Earthquake-Induced Landsliding* Section above, there is no potential for landsliding to occur within the area. Therefore, damage from landslides and other mass movements are not anticipated within the project area.

**Subsidence or Collapse**

Land subsidence is the gradual, local setting, or shrinking of the earth’s surface with little or no horizontal motion. Subsidence is normally the result of gas, oil, or water extraction, hydrocompaction, peat oxidation, and not the result of landslide or ground failure. GPEIR Exhibit 3-7 (Subsidence) illustrates the areas in the City of potential subsidence. According to GPEIR Exhibit 3-7, the northern portion of the project area (generally located north of Avenue P) contains a low to moderate (0.1 to 0.5 feet) potential for subsidence, while there is no data available for the southern portion.

Collapsible (hydrocompactive) soils are low density, fine-grained granular soils containing minute pores and voids. They possess some cementation in dry conditions, but when saturated, these soils undergo a rearrangement of the grains and a loss of cementation. This rearrangement results in the collapse of the soil structure at depth and differential settlement at the surface. Although the General Plan does not map areas of collapsible soils in the City, it is noted that collapsible (hydrocompactive) soils are known to occur within the City and generally desert soils are considered collapsible in the first few feet, because of the dry alluvium that causes settlement when wet. Therefore, the potential exists for subsidence or collapse to occur within the proposed Expansion Area.
Differential Settlement

Differential settlement can occur when loosely consolidated materials and fills collapse under the weight of a structure. Settlement of up to a one half-inch is considered normal and expected in many structures. However, settlement greater than one inch can cause structural damage to building foundations. The potential for settlement of soils within the proposed Expansion Area is considered low.

Expansion and Contraction

Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly, and can cause structural damage to building and infrastructure if the potentially expansive soils were not considered in design and construction within the City. According to the GPEIR Exhibit 3-3 (Soil Expansion Potential), portions of the proposed Expansion Area are located within areas having low and moderate soil expansion potential.

Erosion

Soil erosion is defined as the detachment and movement of soil particles by the erosive forces of wind or water. Soil erosion can occur naturally or can be accelerated through the activities of human beings. Wind erosion occurs mostly in flat, bare areas; dry, sandy soils; or anywhere the soil is loose, dry and finely granulated, and affects air pollution and sediment transport and deposition, among others. Water erosion occurs due to the energy of water as it falls toward the earth and flows over the surface. The main variables affecting water erosion are precipitation and surface runoff. Surface runoff carries away the detached soil, may detach additional soils, and ultimately deposits sediment elsewhere. According to the GPEIR Exhibit 3-4 (Soil Erosion Potential), portions of the proposed Expansion Area are located within areas having none to slight and moderate soil erosion potential.

MINERAL RESOURCES

The classified and designated mineral deposits within the Palmdale Planning Area are illustrated on General Plan Exhibit ER-1B (Regionally Significant Construction Aggregate Resources Areas), General Exhibit ER-1C (State-Classified Mineral Resource Deposits), and SOC Figure 4.4-1 (Mineral Resource Deposits). As illustrated on General Plan Exhibits ER-1B and ER-1C and SOC Figure 4.4-1, there are no mineral resource deposits within the project area.

5.6.3 REGULATORY FRAMEWORK

FEDERAL SOIL PROTECTION ACT

The purpose of the Federal Soil Protection Act is to protect or restore the functions of the soil on a permanent sustainable basis. Protection and restoration activities include prevention of harmful soil changes, rehabilitation of the soil of contaminated sites and of water contaminated by such sites, and precautions against negative soil impacts. If impacts are made on the soil,
disruptions of its natural functions and of its function as an archive of natural and cultural history should be avoided, as far as practicable. In addition, the requirements of the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) through the National Pollution Discharge Elimination System (NPDES) permit provide guidance for protection of geologic and soil resources.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This State law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The Act’s main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Act requires the State Geologist to establish regulatory zones, known as “Earthquake Fault Zones,” around the surface traces of active faults and to issue appropriate maps. Earthquake Fault Zones were called “Special Studies Zones” prior to January 1, 1994. Local agencies must regulate most development projects within these zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific area must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet).

The City of Palmdale is affected by a State-designated Earthquake Fault Zone. According to the Official Maps of Alquist-Priolo Earthquake Fault Zones, published by the Department of Conservation, Geological Survey, an Alquist-Priolo Earthquake Fault Zone is located approximately 600 feet from Expansion Area B’s southern boundary.

Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a “Natural Hazard Disclosure Statement” when the property that is being sold lies within one or more State-mapped hazard areas, including Earthquake Fault Zones.

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (S-H Act) of 1990 provides a statewide seismic hazard mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other seismic hazards caused by earthquakes. Mapping and other information generated pursuant to the S-H Act is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2)

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the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. The State Geologist is responsible for compiling seismic hazard zone maps. The S-H Act specifies that the lead agency of a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

There are five types of earthquake hazard maps: National Seismic Zones Map (i.e., Ground Shaking); Earthquake Fault Zone Maps; Seismic Hazard Zone Maps (i.e., Liquefaction and Landslides); Tsunami Inundation Maps; and Dam Inundation Maps. The zones defined by these maps are at greatest potential risk when a major earthquake occurs.

**National Seismic Zones Map (Ground Shaking).** The earthquake hazard potential for the U.S., determined through a national program, has been generalized into four seismic zones, numbered Zone 1 through Zone 4. Zone 1 has the lowest earthquake danger and Zone 4 has the highest earthquake danger. Stronger construction standards for buildings in Zones 3 and 4 have been adopted in the Uniform Building Code. All of California lies within Seismic Zone 3 or 4, while most of the densely populated parts of California are in Zone 4. Stronger construction standards for buildings in Zones 3 and 4 have been adopted in the Uniform Building Code. According to the Seismic Zones Map, the City of Palmdale is situated within Zone 4.9

**Earthquake Fault Zone Maps.** These maps illustrate approximately 1,000 foot wide zones nearest active earthquake faults that have ruptured the earth. The State Geologist establishes regulatory zones, known as “Earthquake Fault Zones,” around the surface traces of active faults and to issue appropriate maps; refer to the Alquist-Priolo Earthquake Fault Zoning Act Section above. The City of Palmdale is affected by a State-designated Alquist-Priolo Earthquake Fault Zone.10

**Seismic Hazard Zones Maps (Liquefaction and Earthquake-Induced Landslides).** The Seismic Hazards Zonation Program maps two types of Zones of Required Investigation: Liquefaction; and Earthquake-Induced Landslides. Liquefaction Zones of Required Investigation involve areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements such that mitigation, as defined in Public Resources Code Section 2693(c) would be required.11 Earthquake-Induced Landslides Zones of Required Investigation involve areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation, as defined in Public Resources Code Section 2693(c) would be required. In these areas, site-specific study must be completed before a building permit is approved. According to the Seismic Hazard Zone Map Palmdale Quadrangle (October 17, 2003), the project area is not

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11 Public Resources Code Section 2693(c) defines mitigation as “those measures that are consistent with established practice and that will reduce seismic risk to acceptable levels.”
located within a mapped Liquefaction Zone of Required Investigation, or Earthquake-Induced Landslides Zone.\textsuperscript{12}

Tsunami Inundation Maps. These maps are for use by coastal communities to produce emergency evacuation plans. The Los Angeles County Tsunami Inundation Maps identify the affected coastal cities/communities. Given its inland location, the City of Palmdale is not an affected coastal city. The project area is not located within a mapped Tsunami Inundation Zone.\textsuperscript{13}

Dam Inundation Maps. These maps illustrate the areas below major dams that may be flooded in the event of their failure. The references on the California Seismic Safety Commission website include only Bay Area Dam Failure Inundation Maps. Notwithstanding, GPEIR Exhibit 3-16 (Inundation Areas) delineates the potential inundation areas for Lake Palmdale and Little Rock Creek Dam. The Expansion Area is not located within a potential inundation area.

\textbf{UNIFORM BUILDING CODE}

Development standards require projects to comply with appropriate seismic design criteria in the Uniform Building Code (UBC), adequate drainage facility design, and preconstruction soils and grading studies. Seismic design standards have been established to reduce many of the structural problems occurring because of major earthquakes. In 1998, the UBC was revised as follows.

\begin{itemize}
  \item Upgrade the level of ground motion used in the seismic design of buildings;
  \item Add site amplification factors based on local soils conditions; and
  \item Improve the way ground motion is applied in detailed design.
\end{itemize}

\textbf{CALIFORNIA BUILDING CODE}

California building standards are published in the California Code of Regulations, Title 24, known as the California Building Code (2010 CBC). The CBC applies to all applications for residential building permits. The CBC consists of 11 parts that contain administrative regulations for the California Building Standards Commission and for all State agencies that implement or enforce building standards. Local agencies must ensure that development complies with the guidelines contained in the CBC. Cities and counties have the ability to adopt additional building standards beyond the CBC.

\textbf{CITY OF PALMDALE GENERAL PLAN}

\textbf{Land Use Element}

It is the City’s goal (Goal L1) to create a vision for long-term growth and development in the City of Palmdale which provides for orderly, functional patterns of land uses within urban areas, a


\footnotesize{\textsuperscript{13} State of California Department of Conservation: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/LosAngeles/Pages/LosAngeles.aspx, Accessed October 22, 2010.}
unified and coherent urban form, and a high quality of life for its residents. To this end, Objective L1.4 of the Land Use Element is to adopt land use policies, which minimize exposure of residents to natural hazards, protect natural resources, and utilize land with limited development potential for open space and recreational uses where feasible. Objective L3.1 of the Land Use Element is to provide for the distribution of residential densities and housing types to meet the varied lifestyles and needs of existing and future City residents. The Land Use Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

**Safety Element**

The General Plan Safety Element addresses natural and man-made hazards present in the City of Palmdale. The Safety Element is intended to guide development by reducing the levels of risk posed by these hazards within the City and its Planning Area. Specifically, the Safety Element identifies present conditions and public concerns, sets policies and standards for improved public safety, and plans for protection from potential disasters. It seeks to minimize physical harm, as well as economic and social disruptions. Refer to Section 5.7, Hazards and Hazardous Materials, of this EIR, for a discussion of hazardous materials/waste. The Safety Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

**CITY OF PALMDALE MUNICIPAL CODE**

Various sections of the City of Palmdale Municipal Code (PMC) include regulations and standards pertaining to geology and soils.

PMC Section 8.04.200, *Adoption of Building Code*. The Palmdale Building Code (PBC) is codified in PMC Chapter 8.04 in Title 8, *Health and Safety*. The PBC adopted the 2010 Edition of the California Building Code published by the International Conference of Building Officials and the Building Standards Commission of the State of California, including Chapters 2 through 35 of Volumes I and II and Appendix I, *Patio Covers*, as amended. The purpose of the PBC is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, use, occupancy, location, and maintenance of all buildings, structures, grading, and certain equipment.

PMC Section 8.04.202, *Palmdale Building Code, Chapter 1, Administrative Provisions, Section 110.2, Geologic Hazards*.

110.2.1 Building Restrictions

No building or grading permit shall be issued under the provisions of this section when the Building Official or City Engineer finds that property outside the site of the proposed work could be damaged by activation or acceleration of a geologically hazardous condition and such activation or acceleration could be attributed to the proposed work on, or change in use of, the site for which the permit is requested. For the purpose of this section, geologically hazardous condition does not include surface displacement due to earthquake faults.
110.2.2 Permits

Work requiring a building or grading permit by this PBC is not permitted in an area determined by the Building Official or City Engineer to be subject to hazard from landslide, settlement or slippage. These hazards include those from loose debris, slope wash and the potential for mudflows from natural slopes or graded slopes. For the purpose of this section, landslide, settlement or slippage does not include surface displacement due to earthquake faults.

PMC Section 8.04.265 Chapter 70, *Excavation and Grading*. This chapter sets forth regulations for the control of excavation, grading, and earthwork construction, and for the control of grading site runoff, including erosion, sediments and construction related pollutants. These regulations establish minimum standards.

*Section 111 – Geology and Engineering Reports*

The Building Official or City Engineer may require an Engineering Geology or Geotechnical Engineering Report, or both, where in the Building Official’s opinion, such reports are essential for the evaluation of the safety of the site. The Engineering Geology or Geotechnical Engineering Report or both shall contain a finding regarding the safety of the building site for the proposed structure against hazard from landslide, settlement, or slippage, and a finding regarding the effect that the proposed building or grading construction will have on the geologic stability of property outside of the building site. A certified engineering geologist licensed by the State of California shall prepare any Engineering Geology Report. A civil engineer qualified to perform this work, such as a geotechnical engineer experienced in soil mechanics, shall prepare any Geotechnical Engineering Report.

*Section 112 – Earthquake Fault Maps*

Special studies zones maps within the City of Palmdale prepared pursuant to Sections 2622 and 2623 of the California Resources Code, which show traces of earthquake faults are incorporated by reference into the PBC.

*Section 113 – Earthquake Faults*

The construction of a building or structure near a known active earthquake fault and regulated by the PBC is permitted as set forth in this section. The provisions of this section apply only to permits for buildings or structures on individual lots or parcels and are not intended to be supplementary to geologic investigations required to qualify divisions of land as set forth in the City of Palmdale Subdivision Codes; see discussion below.

113.5 Construction Limitations: No building or structure shall be constructed over or upon the trace of a known active earthquake fault, which is shown on maps maintained by the City Engineer. The absence of a known active earthquake fault trace at the proposed building location shall be determined by the City Engineer or a geologist in the following cases:

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14 For the purpose of this section, known active earthquake faults are those faults, which have had displacement within Holocene time (approximately the last 11,000 years) as defined in the most current issue of Special Publication 42 of the California Division of Mines and Geology.
1. When the proposed building is within 50 feet (15,240 mm) of that line designated by the Building Official as the assumed location of a known active earthquake fault on the aforementioned maps.

2. When the proposed building is within 50 feet (15,240 mm) of the most probable ground location of the trace of a known active earthquake fault shown on the aforementioned maps.

PMC Section 16.80.020, *Geotechnical, Geologic, and Soils Reports*.

A) Soils Report. A preliminary soils report, based upon adequate subsurface exploration, test borings and laboratory tests, shall be required for every subdivision for which a final or parcel map is required, prior to approval of the tentative or parcel map. In the event the preliminary soils report indicates the presence of collapsible or expansive soils, liquefaction or other soil problems, which if not corrected could result in structural defects, a geotechnical investigation of each lot or parcel in the subdivision shall be undertaken, and a report shall be submitted to the City Engineer recommending corrective action which is likely to prevent structural damage to each structure proposed to be constructed in the area where such soils problems exist.

B) Geologic Report. Geologic and geotechnical reports shall be required, prior to approval of the tentative or parcel map, when a subdivision involves any of the following:

1. The subdivision is within any zone requiring special study by the State Geologist or the City Engineer;

2. The subdivision proposes to dispose surface water through the use of drywells or other subsurface facilities;

3. The site of the subdivision contains hillside areas where the existing gradient equals or exceeds 10 percent; or

4. The development of the subdivision requires excavation into bedrock.

(C) Geotechnical, geologic and soils reports, as required herein, shall be prepared by an engineer or geologist, as applicable, who is authorized to practice and prepare said reports by the state of California. Said reports shall be reviewed and approved by the City Engineer. If public improvement plans or grading plans are required as part of the map approval process, the review and approval of the geotechnical, geologic or soils reports shall be required prior to approval of public improvement plans or grading plans. The City Engineer may waive these requirements for parcel maps at his or her discretion, in the exercise of his or her professional judgment. The City Engineer shall make a copy of all approved reports available to the public.

**Emergency Preparedness Plan**

The General Plan identifies the City Emergency Preparedness Plan as one of the public safety programs aimed at mitigating unacceptable risks. The Emergency Preparedness Plan identifies emergency responses and recovery operations for disaster occurrences affecting the City.
Additionally, the City’s emergency plan addresses evacuation procedures/routes, emergency drills, monitoring and warning systems, and identifies resources in the event of an emergency. General Plan Exhibit S-1 (Evacuation Routes) identifies major streets within the City that serve as evacuation routes. In addition to evacuation routes, General Plan Exhibit S-2 (Emergency Facilities and Public Shelters) identifies emergency facilities and public shelters within the City that may be utilized in the event of a disaster.

**Local Multihazard Mitigation Plan**

Federal law requires that local jurisdictions have an approved Local Hazard Mitigation Plan as a condition for receiving both pre-disaster and post-disaster hazard mitigation grants. It also requires that the state or local government recipients of federal assistance evaluate the natural hazards of the area in which the assistance is to be used and take action to mitigate them, including safe land use and construction practices. A Local Multihazard Mitigation Plan assists a community in reducing impacts from hazards by recognizing its vulnerability in relation to its risk, identifying resources, creating an orderly data collection process, and developing strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the community involved.

The City of Palmdale’s Local Multihazard Mitigation Plan (LMHMP) (April 2008) is designed to ensure that in the course of preparing for, responding to, or recovering from natural and man-made hazards, the long term values of the community are not compromised. If there is damage to lives and/or property, from any event that is catastrophic to the City or surrounding community, this Plan is intended to provide the City with a framework by which the impacts of the event may be mitigated in the most cost and resource-effective manner possible.

**5.6.4 SIGNIFICANCE THRESHOLD CRITERIA**

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to geology and soils. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Include areas of potential differential settlement on the project site which could significantly impact development of the proposed project;
- Include areas of high shrink/swell (hydrocompaction) potential which could significantly impact development of the proposed project;
- Be located in an area of potential subsidence;
- Result in a significant increase in wind or water erosion of soils, either on- or off-site;
- Result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities; refer to Section 5.8, Hydrology and Water Quality.
• If the site is in a fault rupture hazard zone, is there an active or potentially active fault on the project site;

• If the site is in a fault rupture hazard zone, does the project include a school, emergency or public facility, day care center, nursing home, or high rise building;

• Be located in a zone subject to seismic ground shaking, ground failure, or liquefaction;

• Contain slopes of 10% or greater; refer to Section 8.0, Effects Found Not to be Significant;

• Result in any significant modification of major landforms; refer to Section 8.0, Effects Found Not to be Significant;

• Include areas of landslide risk, or are landslides present on the project site; refer to Section 8.0, Effects Found Not to be Significant;

• Create slopes, on- or off-site, that could be subject to landslides, mud slides, or erosion; refer to Section 8.0, Effects Found Not to be Significant; and/or

• Impede the extraction of significant mineral resource deposits.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.6.5 IMPACTS AND MITIGATION MEASURES

SEISMIC HAZARDS

Thresholds:
Would the project be located in a zone subject to seismic ground shaking, ground failure, or liquefaction?

If the site is in a fault rupture hazard zone, is there an active or potentially active fault on the project site?

If the site is in a fault rupture hazard zone, does the project include a school, emergency or public facility, day care center, nursing home, or high rise building?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted
by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Seismic Ground Shaking. The proposed Expansion Area is located within a seismically active region of southern California. The possibility of moderate to high ground acceleration or shaking in the project area may be considered as approximately similar to the Southern California region as a whole. The San Andreas Fault and the Cemetery Fault (a major fault trace of the San Andreas system) are located south of the southernmost portion of the project area. Additionally, several other active faults are located nearby; refer to GPEIR Exhibits 3-8 and 3-10, which illustrate the locations of the local and regional faults. As indicated on GPEIR Exhibit 3-9, which illustrates the expected seismic shaking zones for an earthquake with a magnitude of 8.0 or more, the proposed Expansion Area is located within Seismic Shaking Zone 1. Seismic Zone 1 is defined as areas most likely to experience severe accelerations greater than 0.5 gravity. Further, according to the National Seismic Zones Map, the City of Palmdale is situated within Zone 4, which has the highest earthquake danger of the four national seismic zones.

The proposed project would facilitate new development, public facilities, and infrastructure and transportation improvements in a zone subject to seismic ground shaking. Therefore, future development in the proposed Expansion Area in accordance with the General Plan could expose more people and structures to the effects of seismic ground shaking from locally and regionally generated earthquakes. The intensity of groundshaking and degree of impact would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project area. Additionally, the soil and geologic structure underlying the project area would influence the amount of damage that the project area may experience. Potential damage to existing and new structures cannot be precluded. Damage to infrastructure, including roadways, water and wastewater lines, gas lines, power poles, storm drainage, and other public facilities, could occur also.

Fault Rupture. As depicted on the Official Maps of Alquist-Priolo Earthquake Fault Zones, the nearest Alquist-Priolo Earthquake Fault Zone is located approximately 600 feet south of the project area’s southern boundary. The Alquist-Priolo Earthquake Fault Zoning Act’s main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Consistent with the Act’s requirements, the City regulates most development projects within the zones. Future development permitted within the Expansion Area in accordance with the General Plan would not involve construction of buildings used for human occupancy on the surface trace of active faults, given an Earthquake Fault Zone does not traverse the project area. Similarly, project implementation would not result in construction of a school, emergency or public facility, day care center, nursing home, or high rise building within an Earthquake Fault Zone. However, according to the GPEIR, immense structural damage and loss of life could occur in buildings less than one mile (5,280 feet) from the fault. Therefore, given the project area’s proximity to the Earthquake Fault Zone (i.e., approximately 600 feet), structural damage and loss of life could occur within the project area due to fault rupture within the nearby Earthquake Fault Zone.
Liquefaction. According to GPEIR Exhibit 3-13 (Aquifers and Groundwater Surface), the groundwater level within the proposed Expansion Area is in excess of 100 feet below the surface. Therefore, the conditions conducive to potential liquefaction are not present in the project area. Moreover, the project area is not located within a mapped Liquefaction Zone of Required Investigation, according to the Seismic Hazard Zone Map Palmdale Quadrangle. The new residential and non-residential development, public facilities, and infrastructure and transportation improvements facilitated by the proposed project would not be located in a zone subject to liquefaction. Therefore, project implementation would not expose more people and structures to potential impacts involving liquefaction.

Conclusion. As concluded above, the anticipated developments and improvements within the proposed Expansion Area would be located in a zone subject to seismic ground shaking, and in proximity to an Earthquake Fault Zone, exposing more people and structures to potential impacts involving these seismic hazards. The risk associated with earthquake hazards to residents in the proposed Expansion Area due to the proximity to the San Andreas Fault is considered significant. The numerous controls that would be imposed on future development/improvements within the Expansion Area through the City’s permitting process would lessen impacts associated with strong seismic ground shaking and fault rupture, among other hazards discussed below. In general, the City regulates development (and reduces potential impacts from seismic hazards) according to Municipal Code (i.e., Building and Zoning Codes) regulations, GPEIR Mitigation Measures and Policies, and project specific mitigation measures.

The design, construction, and engineering of structures within the project area would be subject to compliance with the PBC (Chapter 8.04, Adoption of Health, Safety and Technical Construction Codes) which adopted the 2010 CBC. Given the project area is situated within Zone 4, all future development would be subject to stronger construction standards pursuant to the PBC. The effects of strong seismic ground shaking would be minimized for structures designed and constructed in conformance with the PMC Chapter 8.04 (i.e., the PBC and CBC) and industry-accepted engineering standards. Any future modifications to buildings constructed prior to 1934 would be subject to compliance with the CBC, which would sufficiently mitigate potential impacts from strong seismic ground shaking. Any future development/infrastructure that occurs within the proposed Expansion Area would be designed to resist seismic forces in accordance with the criteria and seismic design parameters contained in the most current version of the PBC. Pursuant to PBC Section 111 (Geology and Engineering Reports) the Building Official or City Engineer may require an Engineering Geology or Geotechnical Engineering Report, or both, where in the Building Official’s opinion, such reports are essential for the evaluation of the safety of the site. PBC Section 113 (Earthquake Faults) identifies the requirements for construction of a building or structure on an individual lot/parcel near a known active earthquake fault. Pursuant to PMC Section 16.80.020 (Geotechnical, Geologic, and Soils Reports), geologic and geotechnical reports would be required, prior to approval of the tentative or parcel map, when the subdivision is within any zone requiring special study by the City Engineer.

All future development/improvements within the Expansion Area would be subject to compliance with Policy L1.4.2, which establishes standards in and adjacent to Alquist-Priolo Earthquake Fault zones and other active fault zones as determined based on geotechnical analysis, in order to protect residents, property, and infrastructure systems from damage by seismic activity. Policy L3.1.2 specifies that no residential density shall be calculated for any seismic set back.
zone adjacent to active or potentially active fault traces where construction of habitable structures is not permitted, as delineated by a site-specific geotechnical report. Compliance with Policy S1.1.3, which requires geotechnical studies to be reviewed and approved by the City’s geologist for development proposals in areas where geotechnical hazards may be present, and implement the recommendations of those reports as deemed necessary by the City, would be required. Additionally, the GPEIR includes mitigation measures to address development within areas of potential geologic hazards. Specifically, site-specific geotechnical studies would be required for sites identified by the City as located within an area of potential seismic or geologic hazards.

Following compliance with the Code requirements, and GPEIR recommended mitigation and Policies, project implementation would result in less than significant impacts involving the exposure of persons or structures to seismic ground shaking and fault rupture. Finally, continued compliance with the City’s Local Multihazard Mitigation Plan would provide the City with a framework by which the impacts of a natural catastrophic event may be mitigated in the most resource-effective manner possible.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Implementation Program S-A3:** Geologic Investigation. The city engineering geologist will evaluate the need for a geologic investigation for proposed development within areas of potential geologic hazards. Geologic investigations will be required to include assessment of soil stability, susceptibility to geologic hazards in the area (including distance to nearest fault), and any other conditions which, as determined by the Engineering Department, may affect structural foundations.

**Implementation Program S-A4:** Construction and Land Use Standards. The City will review all new development for compliance with construction and land use standards regarding earthquake and other hazards. Strict enforcement of building codes and development standards shall be maintained with modifications granted only if no risks to life and property are involved.

**Implementation Program S-A5:** Special Study Zones. The City has established special study zones in known hazardous areas (earthquake fault zones, flood hazard areas, and areas of steep slopes) in order to identify the need for in-depth studies before allowing development within these areas. The construction of high density uses and critical structures on hazardous sites will be limited as required by California state law and City ordinances.
Implementation Program S-A8: Public Information and Education. The City will develop programs for public information and the education of residents and businesses on earthquake safety, flood hazards, dam inundation, geologic hazards, and other issues for which prevention measures may decrease the potential for personal injury and property damage.

Implementation Program S-A18: Development Review. Through the review of site plans, conditional use permits, and other development applications, the City will enforce the standards for floodplain development, seismic safety, and others.

Implementation Program S-A22: Building and Seismic Safety Codes. The City will enforce its building and seismic safety codes which provide minimum standards for the construction of habitable structures, and ensure the structural stability and safety of all developments. The Building and Safety Department reviews all construction plans for compliance with codes prior to development. The City’s Code Enforcement section responds to citizens concerns regarding unsafe structures and requires abatement of code violations.

Implementation Program S-B1: Standards for Construction and Development. Construction and development standards contained in the Zoning and Building codes include:

- Engineered construction must withstand secondary rupture in structures near fault zones.
- Emergency facilities and sites with explosives and toxic materials must adhere to more restrictive seismic safety construction.
- Emergency facilities shall be set back from known hazard areas (earthquake fault zones, aircraft crash zones, and floodplains).
- Critical use structures must conduct geologic/seismic hazards studies before construction, and implement appropriate construction techniques.

Policy L1.4.2: Establish the following standards in and adjacent to Alquist-Priolo Earthquake Fault zones and other active fault zones as determined based on geotechnical analysis, in order to protect residents, property and infrastructure systems from damage by seismic activity:

1. Restrict development of habitable structures in these zones in accordance with requirements of State law.

2. Establish a maximum permitted density for all residentially-designated land between the outer boundaries of the Alquist-Priolo Earthquake Fault Zone of three (3) dwelling units per acre (gross) within the project site,
except where the Land Use Map indicates lower densities in these areas. This policy specifically excludes any non-residential land uses within the project site from the calculation of density.

3. Require placement of roads, utilities and other infrastructure to be located outside of active fault zones, where feasible.

4. Establish a maximum floor area ratio (FAR) of .5 for new non-residential development within Alquist-Priolo Earthquake Fault Zones.

Policy L3.1.2: In calculating the actual permitted density on a parcel of land, the following constraints will be considered:

1. No residential density shall be calculated for any seismic set back zone adjacent to active or potentially active fault traces where construction of habitable structures is not permitted, as delineated by a site-specific geotechnical report. However, seismic set back zones may be included in the calculation of minimum lot area and building setbacks. Areas located within the Alquist-Priolo Earthquake Zone, as delineated by the State Geologist, are subject to the density limitations described in Policy L1.4.2.

2. A maximum residential density of .5 (one/half) dwelling unit per acre shall be calculated for flood hazard areas shown on the latest Flood Insurance Rate Maps as Zone A, and within the historic high water mark of Amargosa Creek, Ana Verde Creek, Littlerock Wash, Big Rock Creek, Hunt Canyon or any natural blue-line creek, except where the Land Use Map indicates lower densities in these areas.

3. In hillside areas, density calculation will also be subject to the provisions of the City’s Hillside Management Ordinance.

Policy S1.1.1: Provide copies of geotechnical reports for projects located within the Alquist-Priolo Special Studies Zone, as shown on the Overlay Map, to the State Division of Mines and Geology.

Policy S1.1.2: Assist developers in obtaining necessary technical and policy information regarding seismic hazards.

Policy S1.1.3: Require geotechnical studies, to be reviewed and approved by the City’s geologist, for development proposals in areas where geotechnical hazards may be present, and implement the recommendations of those reports as deemed necessary by the City.

Policy S1.1.4: Require appropriate structural setbacks from active fault rupture traces in accordance with Alquist-Priolo standards and as required by the City, based on geotechnical analysis.
Policy S1.1.5: Require structural setbacks or special foundations for structures within potentially active fault zones as determined by the City, based on geotechnical analysis.

Policy S1.1.6: Require special foundations within inactive fault zones if determined necessary by the City.

Policy S1.1.7: Restrict location of utility lines, whether above or below ground, within 50 feet of a fault trace, except to cross the fault trace. Utility lines crossing fault traces should be specifically designed to withstand the expected movement of the earth in these locations. Utility lines as defined here would include, but not be limited to, electricity, water, natural gas, and sewer.

Policy S1.1.8: Require that all structures should meet or exceed state required earthquake resistant design standards.

Policy S1.1.9: Review development proposals located in or immediately adjacent to areas of soil instability, liquefaction areas, and steep slopes to determine if a significant constraint exists and to determine appropriate land use or hazard mitigation methods, and require compliance with any such measures identified.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**GEOLOGIC HAZARDS**

**Thresholds:**

Would the project include areas of potential differential settlement on the project site, which could significantly impact development of the proposed project?

Would the project include areas of high shrink/swell (hydrocompaction) potential, which could significantly impact development of the proposed project?

Would the project be located in an area of potential subsidence?

**Impact Analysis:**

Differential Settlement. The potential for settlement of soils within the proposed Expansion Area is considered low. Therefore, the project could include areas of differential settlement, potentially exposing the proposed building/improvements to significant impacts and damage. Settlement of greater than one inch can cause structural damage to building foundations.
Shrink/Swell Potential. As depicted in GPEIR Exhibit 3-3 (Soil Expansion Potential), portions of the proposed Expansion Area are located within areas having low and moderate soil expansion potential. Therefore, the project could include areas of shrink/swell potential. Development on expansive soils can cause land slippage and structural damage to foundations. Development on expansive soils would require special grading and construction techniques.

Subsidence. According to GPEIR Exhibit 3-7 (Subsidence), the northern portion of the project area (generally located north of Avenue P) contains a low to moderate potential for subsidence, while there is no data available for the southern portion. Developments and improvements facilitated by the proposed project could be located in an area of potential subsidence. Therefore, project implementation could expose more people and structures to potential impacts involving subsidence.

Collapse. Although, the General Plan does not map areas of collapsible soils in the City, generally desert soils are considered collapsible in the first few feet. Therefore, project implementation could expose more people and structures to potential impacts involving collapsible soils.

Conclusion. As concluded above, the anticipated developments and improvements would be located in zones subject to differential settlement, shrink/swell potential, subsidence, or collapse, exposing more people and structures to potential impacts involving these geologic hazards. With implementation of GPEIR mitigation measures and City programs, geologic hazards would be reduced to a less than significant level. Regulating or restricting construction in areas with soil stability problems can reduce potential impacts associated with geologic hazards. Impacts can also be reduced by grading and engineering methods which provide a stable foundation for building construction. With the implementation of GPEIR mitigation measures and City programs, geologic hazards would be reduced to a less than significant level.

The numerous controls that would be imposed on future development/improvements within the Expansion Area through the City’s permitting process would lessen impacts associated with geologic hazards. The City would continue to regulate development (and reduce potential impacts from geologic hazards) requiring compliance with Municipal Code (i.e., Building and Zoning Codes) regulations, GPEIR mitigation measures and policies, and project specific mitigation measures.

The design, construction, and engineering of structures within the project area would be subject to compliance with the PBC. Pursuant to PMC Section 8.04.202, Section 110.2.2, Permits, work requiring a building or grading permit by the PBC is not permitted in an area determined by the Building Official or City Engineer to be subject to hazard from landslide, settlement, or slippage. Moreover, compliance with Section 111 – Geology and Engineering Reports, would be required, as discussed above. PMC Section 16.80.020, Geotechnical, Geologic, and Soils Reports, requires a preliminary soils report for every subdivision for which a final or parcel map is required, prior to approval of the tentative or parcel map. In the event the preliminary soils report indicates the presence of collapsible or expansive soils, liquefaction or other soil problems, which if not corrected could result in structural defects, a geotechnical investigation of each lot or parcel in the subdivision shall be undertaken. Following compliance with the Code requirements, and GPEIR recommended Mitigation Measures and Policies, project
implementation would result in less than significant impacts involving damage to building/improvements from differential settlement, shrink/swell potential, subsidence, or collapse.

Mitigation Programs:


Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

SOIL EROSION

Threshold: Would the project result in a significant increase in wind or water erosion of soils, either on- or off-site?

Impact Analysis: Soils are susceptible to wind and water erosion where erodible soils are exposed during or after grading on steep slopes with inadequate vegetative cover, or where inadequate grading or drainage design occurs. Once covered, soil is no longer exposed to the elements. According to the GPEIR Exhibit 3-4 (Soil Erosion Potential), portions of the proposed Expansion Area are located within areas having none to slight and moderate soil erosion potential.

Future development within the proposed Expansion Area in accordance with the General Plan would occur on vacant and/or underutilized sites. Clearing and grading for construction associated with future developments would expose soils to short-term erosion by wind and water. Construction activities may temporarily exacerbate the impacts of windblown sand, resulting in temporary problems of dust control. However, potential impacts associated with soil erosion would be reduced to a less than significant level with implementation of General Plan policies and programs.

Construction associated with future development and improvements would occur in accordance with PBC Section 8.04.265, Chapter 70 (Excavation and Grading), which establishes regulations for the control of excavation, grading, and earthwork construction, including fills or embankments, and for the control of grading site runoff, including erosion, sediments and construction related pollutants. In addition, construction associated with future development/improvements would be required to comply with the requirements of the Municipal National Pollutant Discharge Elimination System (NPDES) Construction Permit and would implement City grading permit regulations that include compliance with erosion control measures, including grading and dust control measures. Specifically, construction associated with future development projects would be required to have erosion control plans approved by the City of Palmdale Engineering and Transportation Services Division, as well as Storm Water Pollution Prevention Plans (SWPPP). As part of these requirements, Best Management Practices (BMPs) would be implemented during construction activities to reduce soil erosion to
the maximum extent possible. Additionally, all construction activities would be required to comply with AVAQMD Rule 403 regarding the control of fugitive dust. Compliance with the City’s applicable building regulations regarding erosion control and AVAQMD Rule 403 would ensure that impacts related to soil erosion during construction phases of future development would be less than significant. Further, future developments would be improved with hardscape and landscaping, which would reduce the potential for on-site erosion. Given that future developments would be subject to City Code and NPDES requirements for erosion control, grading and soil remediation, future development and improvements anticipated within the proposed Expansion Area in accordance with the General Plan would not result in substantial soil erosion. Impacts would be less than significant in this regard.

Mitigation Programs:

**GPEIR Mitigation Measures and Policies:** Refer to GPEIR A4, A18, A22, B2, Policy S1.1.3, and Policy S1.1.9.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.6.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVE GEOLOGY AND SOILS IMPACTS.**

**Impact Analysis:** The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to geology is presented on page 8-6 of the GPEIR. The analysis concluded that cumulative geologic hazards impacts would be reduced to less than significant with the implementation of mitigation measures. However, due to the region’s proximity to the San Andreas Fault, cumulative impacts associated with ground shaking would remain significant.

Seismic, geologic, and soil conditions in the City would vary by location and their suitability for development would not be uniform. Future development sites may exhibit constraints to development that would be addressed at the geotechnical engineering level. Short-term cumulative impacts such as erosion and sedimentation would occur. Development of cumulative projects would incrementally increase the number of people and/or structures potentially subject to a seismic or geologic hazard. However, such exposure would be minimized through strict engineering guidelines for development at each respective site. Future development would be subject to compliance with the provisions of the GPEIR, PMC, and
NPDES requirements. Mitigation would be incorporated on a project-by-project basis to reduce cumulative seismic, geologic, and soil impacts to a less than significant level.

Buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater geology and soils impacts than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to geology and soils. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts associated with geology and soils within the City would be less than significant.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.6.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts resulting from geologic and seismic hazards, and soil erosion would occur as a result of project implementation.
5.7 Hazards and Hazardous Materials
5.7 HAZARDS AND HAZARDOUS MATERIALS

5.7.1 INTRODUCTION

This section describes the means by which hazardous substances are regulated from a Federal, State and local perspective, and discusses potential adverse impacts to human health and the environment due to exposure of hazardous materials. For this EIR, the term “hazardous material” includes any material that, because of its quantity, concentration, or physical, chemical, or biological characteristics, poses a considerable present or potential hazard to human health or safety, or to the environment. It refers generally to hazardous chemicals, radioactive materials, and bio-hazardous materials. “Hazardous waste,” a subset of hazardous material, is material that is to be abandoned, discarded, or recycled and includes chemicals, radioactive and bio-hazardous waste (including medical waste).

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with hazards and hazardous materials resulting from full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.12 (Risk of Upset) (pages 4-217 through 4-233). The GPEIR concluded the following regarding General Plan buildout:

- Due to the City’s proximity to the San Andreas Fault and other active and potentially active faults, earthquakes present a significant risk to Palmdale residents. Although implementation of mitigation measures and General Plan policies and programs would reduce the impact of seismic hazards, the impact would not be eliminated. This impact was considered significant and unavoidable.

- Implementation of General Plan policies and programs, and mitigation measures identified for individual development projects would reduce geologic impacts relating to slope stability, soil expansion, soil erosion, soil infiltration, soil settlement, subsidence, and hydrocompaction. These impacts were concluded to be less than significant.

5.7.2 EXISTING CONDITIONS

Existing hazards and hazardous materials conditions are based on existing (2010) on the ground development conditions within the proposed Expansion Area.
The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B). Existing development within the Expansion Area includes residential, government, industrial, institutional, and commercial land uses. Notable uses within the proposed Expansion Area include United States Air Force Base Plant 42 (“Plant 42”) and the Palmdale Transportation Center.

REPORTED REGULATORY PROPERTIES

Department of Toxic Substance Control

The EnviroStor Database was developed by the DTSC to allow the public to search for properties regulated by the DTSC’s Site Mitigation and Brownfields Reuse Program where extensive investigation and/or cleanup actions are planned or have been completed. RBF makes no claims as to the completeness or accuracy of the EnviroStor Database; our review of EnviroStor Database’s findings can only be as current as their listings and may not represent all known or potential hazardous waste or contaminated sites. RBF searched all sites within EnviroStor Database in the project area. The search identified four listed regulatory properties located within the boundaries of the project area:

- Air Force Plant 42;
- Boeing North American, Inc.;
- Lockheed Martin Skunk Works; and
- Northrop Corporation Aircraft.

GeoTracker

GeoTracker was developed pursuant to a mandate by the California State Legislature to investigate the feasibility of establishing a statewide Geographic Information System (GIS) for leaking underground fuel tank (LUFT) sites and is maintained by the State Water Resources Control Board (SWRCB). RBF makes no claims as to the completeness or accuracy of GeoTracker; our review of GeoTracker’s findings can only be as current as their listings and may not represent all known or potential hazardous waste or contaminated sites. According to the GeoTracker database search conducted by RSG, 13 regulatory sites have reported LUFT properties that have releases substances to the soil and/or groundwater, which are located within the boundaries of the project area. Additionally, there are 27 military cleanup sites, one land disposal site, and one cleanup program site.

Superfund Information Systems

RBF searched the City of Palmdale on the Environmental Protection Agency’s (EPA’s) Search Superfund Site Information. Superfund Site Information contains information on hazardous waste sites, potentially hazardous waste sites, and remedial activities across the nation, including sites that are on the National Priorities List (NPL) or being considered for the NPL. RBF makes no claims as to the completeness or accuracy of the Superfund Site Information;

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2 Ibid.
our review of the Superfund Site Information findings can only be as current as their listings provided at that time. According to the Superfund Site Information search, Plant 42 is listed as a Superfund Site; however, it is not currently listed on the NPL. In 1993, Plant 42 was identified by the EPA as a “High Priority” location in need of further environmental contamination assessment. In 2002, the Air Force in conjunction with the EPA conducted a hazardous waste site assessment to determine the quantity and type of hazardous waste present on Plant 42. The assessment revealed that Plant 42 includes 31 active and five closed hazardous waste sites containing carcinogenic contaminants such as polychlorinated biphenyls, trichloroethylene, dioxin, and arsenic. Refer to the “Air Force Plant 42/Palmdale Regional Airport” discussion below for additional information regarding activities and potential hazardous materials at the site.

TRANSPORT OF HAZARDOUS MATERIALS/WASTE

Transportation of hazardous materials/wastes is regulated by California Code of Regulations (CCR) Title 26. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between Federal, State, and local governmental authorities and private persons through a State mandated Emergency Management Plan.

Major transportation routes within the City include surface streets, railroads, and freeways. Major surface streets within the proposed Expansion Area include Sierra Highway, Avenue P, Avenue Q, and Avenue R. The railroad is located parallel to Sierra Highway, within the proposed Expansion Area. The SR-14 freeway is located west of the proposed Expansion Area. These transportation routes are used to transport hazardous materials from suppliers to users. Transportation accidents involving hazardous materials could occur on any of the routes, potentially resulting in explosions, physical contact by emergency response personnel, environmental degradation, and exposure to the public via airborne exposure.

FIXED FACILITY

Many businesses within the proposed Expansion Area handle, transport, and/or store hazardous materials. Also, several commercial and retail businesses in the proposed Expansion Area have very small amounts of hazardous materials. Many smaller chemical users such as school laboratories and stores maintain hazardous materials on-site. These hazardous materials may threaten human health or the environment. Potential hazards are found in materials that are toxic, flammable, corrosive, or reactive. It should be noted that existing Federal, State, and local laws regulate the use, transport, disposal, and storage of hazardous materials within the City.

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3 Community Redevelopment Agency of the City of Palmdale, Preliminary Report, Expansion Area Amendment.
RAILROAD OPERATIONS

The Union Pacific Railroad runs parallel to Sierra Highway within the proposed Expansion Area. Metrolink commuter rail service shares the Union Pacific Railroad right-of-way. The Palmdale Transportation Center is located within the western portion of the proposed Expansion Area and serves as a regional multi-modal hub. Public safety hazards typically associated with train operations can be broken down into two groups: 1) accidents associated with population exposure to rail operations (primarily pedestrian and vehicular accidents involving trains) and 2) accidents involving the trains themselves (i.e., derailment). A major train derailment could encompass many threats, such as hazardous materials incident, fire, and severe damage to either adjacent buildings or vehicles, and the loss of life to pedestrians and those in adjacent buildings or vehicles. Also, many businesses that routinely handle and store hazardous materials utilize rail spurs. These businesses have an elevated potential for accidental releases during the transport of hazardous materials from loading areas onto the trains.

AIR FORCE PLANT 42/PALMDALE REGIONAL AIRPORT

Air Force Plant 42 is a United States Government Owned, Contractor Operated (GOCO) aerospace technology and manufacturing plant comprised of eight sites and two active 12,000 foot runways. The facilities’ tenants are Lockheed Martin, Northrop-Grumman, and Boeing. NASA, located adjacent to Plant 42, is a frequent user of Plant 42 airport runways. Lockheed Martin also owns and operates additional facilities that are outside of and adjacent to the boundaries of Plant 42. These facilities handle and store hazardous materials on-site, which may threaten human health or the environment. As stated, Plant 42 is identified as a Superfund Site by the EPA.

Although Palmdale Regional Airport has not been used for commercial service since December 7, 2008, potential future aviation operations could result in accidents. While very rare, aviation accidents in built-up urban areas can cause substantial personal injury, property damage, loss of life on the ground, in addition to passenger and crew injuries/fatalities.

CLANDESTINE DUMPING

Clandestine dumping of toxic materials and hazardous materials/waste on public or private property is a criminal act due to the health and safety threat it poses. Much of the desert area is subject to infrequent, illegal dumping of household waste, commercial waste, and other hazardous materials. Dumping occurs on remote properties as well as down storm drains and into sewers. In general, because of the extensive laws governing industrial wastes, local industrial wastes are disposed of properly. However, illegally dumped industrial and domestic wastes are occasionally found in the desert area.

LANDFILLS

Landfills can have adverse impacts on surrounding properties, the ground, and groundwater below the landfill. The concern from these facilities is related to the kind of materials disposed of in them, which can consist of non-hazardous (class III), hazardous waste (class I) or a combination of both (class II). Currently, there are no active landfills operating in Los Angeles County that accept hazardous wastes. Hazardous wastes generated within the County, which
are disposed of off-site, are transported to Kettleman Hills Landfill in Kern County, or out of State. Kettleman Hills is only partially open, thus most of the hazardous waste goes out of State. The Kettleman Hills facility is considered to be an active “Class One” landfill, capable of handling all types of urban wastes, including toxic and hazardous materials (except explosives and radioactive materials).

5.7.3 REGULATORY FRAMEWORK

Applicable Federal, State, and local regulatory agencies, policies, and law that apply to hazards and hazardous materials are discussed below.

FEDERAL AND STATE

The United States Environmental Protection Agency (U.S. EPA) and the California Department of Toxic Substance Control (DTSC) have developed and continue to update lists of hazardous wastes subject to regulation. Regulation of hazardous wastes is provided on both the State and Federal levels. In addition to the U.S. EPA and the DTSC, the Regional Water Quality Control Board (RWQCB), Lahontan Region (Region 6), is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater.

Department of Toxic Substances Control

The responsibility for implementation of Resource Conservation and Recovery Act (RCRA) was given to California EPA’s Department of Toxic Substances Control (DTSC) in August 1992. The DTSC is also responsible for implementing and enforcing California’s own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and so regulate a larger number of chemicals. Hazardous wastes regulated by California but not by EPA are called “non-RCRA hazardous wastes.”

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Program) was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Program is implemented at the local government level by Certified Unified Program Agencies (CUPA). The Program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (Program Elements):

- Hazardous Waste Generation (including onsite treatment under Tiered Permitting);
- Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or “SPCC”);
- Underground Storage Tanks (USTs);
- Hazardous Material Release Response Plans and Inventories;
The Los Angeles County Fire Department (LACFD) is the CUPA for Los Angeles County, including the City of Palmdale.

**Accidental Release Prevention Law**

The State’s Accidental Release Prevention Law provides for consistency with Federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the State and Federal programs. State and Federal laws are similar in their requirements; however, the California threshold planning quantities for regulated substances are lower than the Federal quantities. Local agencies may set lower reporting thresholds or add additional chemicals to the program.

The Accidental Release Prevention Law is implemented by the CUPA and requires that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the CUPA, which makes the plans available to emergency response personnel. The Business Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

**Transportation of Hazardous Materials/Wastes**

Transportation of hazardous materials/wastes is regulated by California Code of Regulations (CCR) Title 26. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between Federal, State, and local governmental authorities and private persons through a State mandated Emergency Management Plan.

**Worker and Workplace Hazardous Materials Safety**

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.
COUNTY OF LOS ANGELES

Hazardous Materials Control Program

In May 1982, the Los Angeles County Board of Supervisors established the Hazardous Materials Control Program within the Department of Health Services. Originally, the Program focused on the inspection of businesses that generate hazardous waste, but has since expanded to include hazardous materials inspections, criminal investigations, site mitigation oversight, and emergency response operations. On July 1, 1991, the Program was transferred to the LACFD and its name changed to Health Hazardous Materials Division (HHMD).

The HHMD’s mission is to protect the public health and the environment throughout Los Angeles County from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight. The Hazardous Materials Specialists are environmental health professionals dedicated to preventing pollution by serving both the public and business communities in Los Angeles County.

Household Hazardous and E-Waste Program

The Los Angeles County Sanitation District, in cooperation with the Los Angeles County Department of Health Services (DHS), has established the Household Hazardous and E-Waste (electronic waste) Roundup Program. The Household Hazardous Waste Collection Program provides Los Angeles County residents a legal and cost-free way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash.

Los Angeles County Fire Department

The purpose of the Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department is to protect the public health and environment of the County from accidental release and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight.

HHMD oversees the County’s CUPA program and administers the following programs within Los Angeles County: Hazardous Waste Generator Program; Hazardous Materials Release Response Plans and Inventory Program; California Accidental Release Prevention Program (Cal-ARP); Aboveground Storage Tank Program; and Underground Storage Tank Program. The HHMD also inspect and permit hazardous material handling and hazardous waste generating businesses; provide 24-hour emergency response services to hazardous materials incidents; investigates criminal complaints of federal and state hazardous materials and waste laws; and reviews and approves assessment and mitigation work plans for sites contaminated with hazardous substances.
CITY OF PALMDALE GENERAL PLAN

Land Use Element

It is the City’s goal to create a vision for long-term growth and development in the City of Palmdale which provides for orderly, functional patterns of land uses within urban areas, a unified and coherent urban form, and a high quality of life for its residents (Goal L1). To this end, Objective L1.3 of the Land Use Element is to ensure compatibility between land uses which have different functions, requirements, and impacts. The Land Use Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

Safety Element

General Plan Safety Element addresses natural and man-made hazards present in the City of Palmdale. The Safety Element is intended to guide development by reducing the levels of risk posed by these hazards within the City and its Planning Area. Specifically, the Safety Element identifies present conditions and public concerns, sets policies and standards for improved public safety, and plans for protection from potential disasters. It seeks to minimize physical harm, as well as economic and social disruptions. Refer to Section 5.6, Geology and Seismic Hazards, of this EIR, for a discussion of earth resources and geology.

The City’s goals, objectives, and policies for hazardous materials and uses are designed to ensure the protection of the public health, safety, and welfare, and environmental resources in the City. Planning practices emphasize waste reduction, recycling, proper management of hazardous materials, siting of facilities, and effective emergency response.

Objective S1.3 of the Safety Element is to ensure compatible development in areas within or adjacent to natural high fire risk areas (urban-wildland interface), and other high fire risk areas.

Objective S2.3 of the Safety Element is to protect the public from hazardous materials and the hazards associated with the transport, storage, or disposal of such materials. The Safety Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

CITY OF PALMDALE ZONING ORDINANCE

Chapter 9 Article 96 (Hazardous Waste Facilities) of the Palmdale Zoning Ordinance, establishes a uniform conditional use permit application and review process for hazardous waste facilities to ensure protection of the health, safety, welfare, quality of life, and the environment of the residents of Palmdale.

EMERGENCY PREPAREDNESS PLAN

The General Plan identifies the City Emergency Preparedness Plan as one of the public safety programs aimed at mitigating unacceptable risks. The Emergency Preparedness Plan identifies emergency responses and recovery operations for disaster occurrences affecting the City.
Additionally, the City’s emergency plan addresses evacuation procedures/routes, emergency drills, monitoring and warning systems, and identifies resources in the event of an emergency. General Plan Exhibit S-1 (Evacuation Routes) identifies major streets within the City that serve as evacuation routes. In addition to evacuation routes, General Plan Exhibit S-2 (Emergency Facilities and Public Shelters) identifies emergency facilities and public shelters within the City that may be utilized in the event of a disaster.

**CITY OF PALMDALE LOCAL MULTIHAZARD MITIGATION PLAN**

Federal law requires that local jurisdictions have an approved Local Hazard Mitigation Plan as a condition for receiving both pre-disaster and post-disaster hazard mitigation grants. It also requires that the state or local government recipients of federal assistance evaluate the natural hazards of the area in which the assistance is to be used and take action to mitigate them, including safe land use and construction practices. A Local Multihazard Mitigation Plan assists a community in reducing impacts from hazards by recognizing its vulnerability in relation to its risk, identifying resources, creating an orderly data collection process, and developing strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the community involved.

The City’s Local Multihazard Mitigation Plan (LMHMP) (April 2008) is designed to ensure that in the course of preparing for, responding to, or recovering from natural and man-made hazards, the long term values of the community are not compromised. If there is damage to lives and/or property, from any event that is catastrophic to the City or surrounding community, this Plan is intended to provide the City with a framework by which the impacts of the event may be mitigated in the most cost and resource-effective manner possible.

**5.7.4 SIGNIFICANCE THRESHOLD CRITERIA**

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to hazards and hazardous materials. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Will the project result in a risk of an explosion or the release of hazardous substances (Including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset condition;

- Will the project result in possible interference with any emergency response plan or emergency evacuation plan; refer to Section 8.0, Effects Found Not to be Significant;

- Is the site included on any known State Hazardous Waste Site list;

- Is the project within or adjacent to a high fire hazard area as shown in the General Plan, identified by the Los Angeles County Fire Department or based on a site inspection; refer to Section 8.0, Effects Found Not to be Significant;
• Will the project create any health hazard or potential health hazard (excluding mental health); and/or

• Will the project result in the exposure of people to potential health hazards.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.7.5 IMPACTS AND MITIGATION MEASURES

RELEASE OF HAZARDOUS MATERIALS

Threshold: Will the project result in a risk of an explosion or the release of hazardous substances (Including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset condition?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

New development and redevelopment activities may result in an increase in the storage and transport of hazardous materials during construction/rehabilitation activities. The increased use and transport of hazardous materials in the City increases the potential for accidental releases of hazardous materials, which poses a threat to the health and safety of residents. Long-term operations of development associated with implementation of the proposed project would result in a decreased threat to the health and safety of residents, as the proposed redevelopment activities would be required to improve the risk to public health through implementation of Federal, State, and local laws pertaining to hazardous materials, in particular use of the Polanco Act, California Health & Safety Code Section 33459, et seq.

Short-Term Construction/Rehabilitation Activities

Demolition, rehabilitation, and/or construction activities may result in an accidental release of hazardous materials that may result in a public health risk. Known hazardous materials that have reported soil and groundwater contamination exist within the proposed Expansion Area. Several regulatory incidences have been reported on-site via a Federal, State, and/or local
regulatory database. These reported hazardous materials, as well as other unknown hazardous materials, may be encountered during demolition, rehabilitation, and/or construction activities.

Although it is anticipated that future development within the proposed Expansion Area in accordance with the General Plan would primarily occur on vacant land, redevelopment of currently developed sites may occur requiring the demolition of existing buildings prior to construction of new buildings. Demolition of structures could expose construction personnel and the public to hazardous substances such as asbestos containing materials (ACM) or lead-based paints (LBP), depending on the age of the structure. In addition, the disturbance of soils and demolition of structures could expose construction workers or employees to health or safety risks in the event contaminated structures and/or soils are encountered during construction. Exposure could occur from ACM or LBP in older buildings, or unknown contaminants that have not previously been identified.

The Union Pacific Railroad runs parallel to Sierra Highway within the proposed Expansion Area. Metrolink commuter rail service shares the Union Pacific Railroad right-of-way. Active and inactive railroad beds frequently have concentrations of petroleum products and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control. Due to the existing and past railroad uses, the presence of gasoline, diesel, and/or creosote underneath the concrete and surrounding the railroad areas is likely. Also, development associated with past railroad yards may also result in disturbance of contaminated areas. Future development within the proposed Expansion Area in accordance with the General Plan may involve sites in proximity to the existing railroad.

Future development/redevelopment activities within the proposed Expansion Area would be required to comply with Federal, State, and local regulatory requirements regarding hazardous materials. With implementation of GPEIR mitigation measures and additional mitigation measures, requiring site-specific analysis, impacts would be reduced to a less than significant level. Specifically, with implementation of Mitigation Measure HAZ-1, the proposed project would require a formal Phase I Environmental Site Assessment (ESA) to be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities within the project area. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II and Phase III ESA experience prior to land acquisition and/or construction.

Federal and State regulations govern the renovation and demolition of structures where ACMs and LBPs are present. All demolition that could result in the release of ACMs or LBPs must be conducted according to Federal and State standards. Pursuant to Cal OSHA regulations an asbestos survey must be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the levels of asbestos in structures (HAZ-2). On-site LBPs would also be required to be disposed of to an appropriate permitted disposal facility should renovation or demolition occur (HAZ-3). With implementation
of Mitigation Measures HAZ-2 and HAZ-3, impacts in this regard would be reduced to less than significant levels.

While implementation of HAZ-1 through HAZ-3 would reduce potential impacts from site disturbance activities, accidental conditions may arise during construction of a future development project. If unknown wastes or suspect materials are discovered during construction by the contractor, which he/she believes may involve hazardous waste/materials, the contractor would be required to complete the following (HAZ-4):

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the Project Engineer of the implementing agency;
- Secure the areas as directed by the Project Engineer; and
- Notify the implementing agency’s Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator would advise the responsible party of further actions that would be taken, if required.

**Long-Term Operations**

Typical incidents that could result in accidental release of hazardous materials include leaking underground storage tanks, accidents during transport causing a “spill” of hazardous materials and/or natural disasters causing the unauthorized release of a substance. If not cleaned up immediately and completely, these and other types of incidents could cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

Accidental releases would most likely occur in the commercial and industrial areas and along transportation routes, leading to and from these areas. Potential transportation routes for hazardous materials within and adjacent to the project area include the Union Pacific Railroad, Sierra Highway, Avenue M, Avenue P, and Palmdale Boulevard. The City’s street setback requirements minimize the direct damage that may occur from transportation-related hazardous waste spills. The Hazardous Materials Release Response Plans and Inventory Law of 1985 (or the Business Plan Act) requires that a business that uses, handles, or stores hazardous materials above a certain quantity prepare a plan, which must include an inventory of hazardous substances on the premises. A Risk Management and Prevention Plan (RMPP) may be required for businesses that use acutely hazardous substances and are located in proximity to sensitive land uses. As a part of the Risk Management and Prevention Plan, businesses that handle acutely hazardous materials must include a hazard and operability study (HAZOP), which analyze potential hazards to sensitive populations in the vicinity. The LACFD oversees the submittal of Business Emergency Plans, which are intended to mitigate potential release of hazardous substances and minimize potential harm or damage. Oversight by the appropriate agencies and compliance with applicable regulations are considered adequate to offset the negative effects related to the accidental release of hazardous materials on a future development site.
Compliance with measures established by Federal, State, and local regulatory agencies is considered adequate to offset the negative effects related to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials in the proposed Expansion Area. Therefore, potential impacts pertaining to an accidental release of hazardous materials is less than significant with implementation of Federal, State, and local regulatory measures.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Implementation Program S-A17:** Hazardous Waste Management Plan. The City will prepare a Hazardous Waste Management Plan that will assure that hazardous waste facility sites and adjacent land uses are compatible with existing development and that hazardous materials and wastes are stored, used, transported, treated, and disposed of property. This plan will be adopted and implemented in accordance with state law.

**Policy S2.3.1:** Coordinate with Los Angeles Fire Department to develop a listing of all hazardous waste generators that could affect City residents.

**Policy S2.3.2:** Continue to support and encourage state, city, and county efforts to identify existing or previously existing hazardous waste generators or contaminated sites.

**Policy S2.3.3:** Require that soils containing toxic or hazardous substances be cleaned up to the satisfaction of the agency having jurisdiction, prior to the granting of any permits for new development.

**Policy S2.3.4:** Restrict or prohibit land uses and activities that generate excessive amounts of hazardous materials or wastes that cannot be properly maintained or disposed.

**Policy S2.3.5:** Promote the routing of vehicles carrying potentially hazardous materials along transportation corridors that reduce the risk to the public and sensitive environmental areas. Cooperate with regional agencies in developing such routing systems.

**Project Mitigation Measures:**

**HAZ-1** A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II and Phase III ESA experience prior to land acquisition, demolition, and/or construction.
HAZ-2 Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor.

HAZ-3 If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified environmental professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifics exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Project Engineer.

HAZ-4 If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;
- Notify the City’s Project Engineer;
- Secure the area as directed by the Project Engineer; and
- Notify the implementing agency’s Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.

**HAZARDOUS WASTE SITE**

**Threshold:** Is the site included on any known State Hazardous Waste Site list?

**Impact Analysis:** Several sites within the proposed Expansion Area have been identified on a list of hazardous materials sites via Federal, State, and/or local regulatory databases. Many of these incidences pertaining to hazardous materials have not yet received a case closure letter and/or a no further action required designation from the appropriate regulatory agency. These reported hazardous materials, as well as other unknown hazardous materials, may be encountered during demolition, rehabilitation, and/or construction activities within the proposed Expansion Area. Future development activities within the proposed Expansion Area,
in accordance with the General Plan would be required to comply with Federal, State, and local laws pertaining to hazardous waste sites and their remediation.

The GPEIR includes mitigation measures and policies to address hazardous materials. Additional site-specific mitigation measures beyond those identified in the GPEIR (HAZ-1 through HAZ-4) would further reduce potential impacts associated with hazardous waste sites. Following compliance with Federal and State regulatory requirements, the GPEIR mitigation measures and additional mitigation measures, potential impacts to the public or the environment would be reduced to less than significant levels.

**Mitigation Programs:**

GPEIR Mitigation Measures and Policies: Refer to GPEIR A17, Policy S2.3.1, Policy S2.3.2, Policy S2.3.3, Policy S2.3.4, and Policy S2.3.5.

Project Mitigation Measures: Refer to HAZ-1, HAZ-2, HAZ-3, and HAZ-4.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.

**CREATE OR EXPOSE PERSONS TO A HEALTH HAZARD**

**Thresholds:**

*Will the project create any health hazard or potential health hazard (excluding mental health)?*

*Will the project result in the exposure of people to potential health hazards?*

**Impact Analysis:** The proposed project’s primary purpose is to alleviate conditions of blight within the proposed Expansion Area. The proposed project would not modify existing land uses. Land uses allowed within the proposed Expansion Area include residential, commercial, public facilities, and uses associated with Plant 42. These types of land uses may involve the use of hazardous materials, such as dry cleaners, gas stations, and chemical fertilizers/pesticides applied to landscaping and park areas. Such use of hazardous materials, although not expected to pose a risk to people residing or working in the area, could result in potentially significant impacts. Further, the proposed expansion area would also involve industrial uses and uses associated with Plant 42 that may routinely handle, store, and/or transport hazardous substances, as well as generate hazardous waste. Hazardous materials associated with industrial uses can range from common automobile oil and household pesticides to chlorine, dry-cleaning solutions, ammonia, or substances used in commercial and industrial operations. Further, it is anticipated that activities within Plant 42 would utilize various chemicals and hazardous materials associated with aerospace technology and manufacturing. However, it should be noted that these uses already exist within the proposed Expansion Area.

Chemical storage of any kind over specific quantities must be publicly reported in accordance with California Proposition 65. Business plans for businesses storing substances above minimum reporting requirements must be prepared and kept on file with the LACFD.
State’s Accidental Release Prevention Law, implemented by the LACFD, requires that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the LACFD which makes the plans available to emergency response personnel. The Business plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

Chemicals and wastes stored in aboveground or underground storage tanks would follow guidelines mandated by the RWQCB and LACFD. Aboveground tanks storing hazardous chemicals would have secondary containment to collect fluids that are accidentally released. Underground storage tanks and connecting piping would be double-walled and would have monitoring devices with alarms installed to constantly monitor for unauthorized releases in accordance with Federal, State, and local standards.

Further, new businesses that locate near residential areas or other sensitive uses may expose these sensitive uses to greater risk of exposure to hazardous materials, wastes, or emissions. Methods such as a buffer in the form of a major street, channel, or intervening land use can be used to separate residential areas from industrial areas. While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to maintain risk to acceptable levels. Compliance with measures established by Federal, State, and local regulatory agencies, GPEIR mitigation measures and additional mitigation measures beyond those identified in the GPEIR (HAZ-1 through HAZ-2), would reduce impacts associated with the potential exposure of people to health hazards associated with the use of hazardous materials. Thus, impacts would be less than significant in this regard.

**Mitigation Programs:**

GPEIR Mitigation Measures and Policies: Refer to GPEIR A17, Policy S2.3.1, Policy S2.3.2, Policy S2.3.3, Policy S2.3.4, and Policy S2.3.5.

Project Mitigation Measures: Refer to HAZ-1, HAZ-2, HAZ-3, and HAZ-4.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Incorporated.

**5.7.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES**

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVE IMPACTS ASSOCIATED WITH HAZARDS AND HAZARDOUS MATERIALS.
Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to hazards and hazardous materials is presented on page 8-18 of the GPEIR. The analysis concluded that cumulative impacts associated with hazards and hazardous materials with development buildout under the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

The proposed project’s primary purpose is to alleviate conditions of blight within the proposed Expansion Area. The proposed project would involve the implementation of several programs and general project activities to alleviate conditions of blight. Therefore, it is anticipated that potential hazards and hazardous material impacts would be improved beyond existing conditions.

The proposed project would allow for the redevelopment of existing uses in the proposed Expansion Area. These redevelopment activities may result in an increase in the storage and transport of hazardous materials during construction/rehabilitation activities. The redevelopment activities proposed may increase use and transport of hazardous materials in the project area, resulting in the increased potential for accidental releases of hazardous materials. However, long-term operations of development associated with the proposed project would also result in a decreased threat to the health and safety of residents, as the proposed redevelopment activities would be required to improve the risk to public health through implementation of Federal, State, and local laws pertaining to hazardous materials. Short-term impacts associated with rehabilitation/construction would be reduced to less than significant with implementation of GPEIR mitigation measures and the recommended mitigation measures HAZ-1 through HAZ-4.

Compliance with Federal, State, and local regulations would ensure that potential contamination or exposure to hazardous substances is avoided or controlled to minimize the risk to the public on a case-by-case basis, as the cumulative projects are constructed. Impacts in this regard are less than significant with compliance of applicable Federal, State, and local regulations, GPEIR mitigation measures, and mitigation measures HAZ-1 through HAZ-4.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures outlined above.

5.7.7 **SIGNIFICANT UNAVOIDABLE IMPACTS**

Public health and safety impacts associated with implementation of the proposed project would be less than significant with compliance and/or adherence to the existing Federal, State, and local regulations regarding hazardous materials, GPEIR mitigation measures, and implementation of mitigation measures HAZ-1 through HAZ-4. Therefore, no significant unavoidable public health and safety impacts related to hazards or hazardous materials would occur as a result of the proposed project.
9.0 Significant Environmental Effects Which Cannot Be Avoided If The Proposed Action Is Implemented
9.0 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

CEQA Guidelines Section 15126(b) requires an EIR to “describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications, and the reasons why the project is being proposed, notwithstanding their effect, should be described.”

Section 5.0 of this EIR provides a description of the potential environmental impacts of the proposed project and recommends mitigation measures to reduce impacts to a less than significant level, where possible. After implementation of the recommended mitigation measures, most of the potentially significant impacts associated with the proposed project would be reduced to a less than significant level. However, the impacts listed below could not be feasibly mitigated and would result in significant unavoidable impacts associated with approval of the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area.

AIR QUALITY

- Short-Term Construction
  - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?

- Long-Term Operational
  - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?
  - Would the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?

- Cumulative Short-Term Construction and Long-Term Operational
  - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?
  - Would the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?
GREENHOUSE GAS EMISSIONS

- Greenhouse Gas Emissions
  - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

- Cumulative Greenhouse Gas Emissions
  - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

HYDROLOGY AND WATER QUALITY

- Groundwater
  - Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

- Cumulative Groundwater
  - Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

WATER

- Water Supply and Demand
  - Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?

  - Will the proposal result in a need for new water systems, or substantial alterations to water supply?

- Cumulative Water Supply and Demand
  - Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?

  - Will the proposal result in a need for new water systems, or substantial alterations to water supply?
5.9 Biological Resources
5.9 BIOLOGICAL RESOURCES

5.9.1 INTRODUCTION

The purpose of this section is to assess the biological resources of the proposed Expansion Area, analyze the potential impacts to those resources from site development, determine the level of significance of those impacts, and recommend mitigation to avoid or lessen the level of significance of the potential impacts.

The following existing conditions discussion is based on the SOC and has been supplemented by subsequent biological resources studies conducted within the project area as part of site-specific development proposals. Although not comprehensive of the project area, these studies provide an understanding of the types of biological resources that have been more recently identified within the area, which are consistent with those identified in the SOC. The following studies have been referenced:

- Biological Resources/Biota Study, Southeast Corner of 8th Street East & Rancho Vista Boulevard, prepared by Enviicom Corporation, November 9, 2007;
- Biological Resources Report on APN 3022-026-005, prepared by Callyn D. Yorke Ph.D., April 2007; and

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts to biological resources as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.4 (Biological Resources) (pages 4-71 through 4-75). The proposed project is consistent with the Land Use Plan and the scope of the analysis presented in the GPEIR. The GPEIR concluded that development allowed by the proposed land use plan would significantly impact biological resources by causing the loss of such resources (i.e., Joshua trees, other native vegetation, sensitive species, wetlands, or riparian vegetation). The impacts would be reduced with implementation of the mitigation measures, but would not be reduced to a level less than significant.
5.9.2 EXISTING CONDITIONS

The biological resources that either occur or potentially occur within the proposed Expansion Area or in the immediate vicinity are described below. Vegetation types, wildlife populations and movement patterns, special status vegetation types, and special status plant and wildlife species either known or potentially occurring are also discussed.

VEGETATION

The project area is located within the westernmost portion of the Mojave Desert, at the southern end of the Antelope Valley. The biological composition of the project area, as well as the bordering areas, is consistent with plant communities commonly found in desert conditions. The SOC used Arc GIS to map the vegetation in the undeveloped portions of the Palmdale area. Plant communities were characterized based on field reconnaissance and examination of 2006 aerial imagery. Plant communities were characterized based on dominant plant species for the purpose of defining habitat types and quality of habitat for supporting sensitive plant and animal species. The primary plant communities in the undeveloped portions of the Palmdale area were mapped, as classified by the California Department of Fish and Game (CDFG) in The Vegetation Classification and Mapping Program; refer to SOC Figure 4.2-1 (Vegetation Communities).

As illustrated on SOC Figure 4.2-1, vegetation in the project area includes two plant communities ([Mojavean] Desert Scrub and Desert Scrub/Joshua Tree Woodland), as well as fallow agricultural lands and urban areas. Since the vegetation was mapped from a broad perspective, additional less dominant plant communities may also exist in the undeveloped areas. Further, an extensive list of associated plant species occurring within the identified communities was not developed. Rather, the following discussion lists dominant plants that were observed or are likely to occur within each plant community, as described in the Manual of California Vegetation.

Mojavean Desert Scrub

The Mojavean Desert Scrub dominates approximately 36 percent of the undeveloped areas within the Planning Area. Mojavean Desert Scrub is composed mainly of shrubs, herbaceous plants, and native and non-native grasses. Scattered California juniper (Juniperus californica) and Joshua trees (Yucca brevifolia) often occur within this plant community as well. The dominant shrubs that typically occur within this plant community include green ephedra (Ephedra viridis), bladder sage (Salizaria mexicana), and California buckwheat (Eriogonum fasciculatum var. polifolium). Predominant herbaceous plants and grasses typically include: downy brome (Bromus tectorum), Mediterranean grass (Schismus barbatus), chia sage (Salvia columbariae), and desert needle grass (Acnatherum speciosum).

Joshua Tree Woodland

Joshua Tree Woodland dominates approximately 13 percent of the undeveloped portions of the Planning Area. Joshua Tree Woodlands consist of emergent or abundant Joshua trees over a shrub canopy that typically consists of rubber rabbitbrush (Chrysothamnus nauseosus), boxthorn (Lycium spp.), cheesebush (Hymenolea salso), creosote bush (Larrea tridentata), bush
buckwheat (*Eriogonum fasciculatum*), saltbush (*Atriplex spp.*), ephedras (*Ephedra spp.*), and big sagebrush (*Artemisia tridentata*). Dominant herbaceous plants and grasses commonly observed in the understory of Joshua Tree Woodlands include: annual bur sage (*Ambrosia acanthicarpa*), freckled milkvetch (*Astragalus lentiginosus*), brome grasses (*Bromus spp.*), poa grasses (*Poa spp.*), non-native fescue grasses (*Festuca spp.*), and mustard weeds. Joshua tree habitats are considered Rare by the CDFG and of “high priority for inventory” (CDFG 2003). The City’s Joshua Tree and Native Desert Vegetation Preservation ordinance applies to the development of land where Joshua trees are present; refer also to the Chapter 14.04, Joshua Tree and Native Desert Vegetation Preservation, section below.

**SIGNIFICANT ECOLOGICAL AREAS (SEAs)**

“Significant Ecological Area (SEA)” is an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan General Plan. SOC Figure 4.2-2 (Significant Ecological Areas) illustrates the SEAs located in the Palmdale area and indicates there are none located within the Expansion Area.

**WILDLIFE**

Wildlife in Palmdale includes a variety of native and introduced species. The planning area is expected to support many of the wildlife species dependent upon the low- to mid-elevation desert scrub plant community throughout the area. Reptiles, small mammals, and a number of bird species occur in the project area. Several sensitive animal species may also be present, as indicated by their preferred habitats; refer to *Sensitive Wildlife Species* section below.

Reptiles expected to commonly occur in the project area include the gopher snake (*Pituophis melanoleucus*), the side-blotched lizard (*Uta stansburiana*), desert horned lizard (*Phrynosoma platyrhinos*), western whiptail (*Cnemidophorus tigris*), and Mojave rattlesnake (*Crotalus scutulatus*).

Small mammals expected to occur in the range of habitats include the western harvest mouse (*Reithrodontomys megalotis*), desert woodrat (*Neotoma lepida*), desert cottontail (*Sylvilagus audubonii*), Merriam’s chipmunk (*Eutamias merriami*), little pocket mouse (*Perognathus longimembris*), several other species of mice (*Peromyscus* spp.), antelope ground squirrel (*Ammospermophilus leucurus*), and the California ground squirrel (*Spermophilus beecheyi*). Larger mammals expected to occur include the black-tailed jack rabbit (*Lepus californicus*) and coyote (*Canis latrans*).

A number of bird species are expected to reside or forage throughout the project area, including the house finch (*Carpodacus mexicanus*), mourning dove (*Zenaida macroura*), greater roadrunner (*Geococcyx californianus*), common flicker (*Colaptes auratus*), and the common raven (*Corvus corax*). Also expected in the desert scrub area are the black-throated sparrow (*Amphispiza bilineata*) and raptors (birds of prey), including the red-tailed hawk (*Buteo jamaicensis*), prairie falcon (*Falco mexicanus*), and American kestrel (*Falco sparverius*).
SENSITIVE BIOLOGICAL RESOURCES

As part of the SOC, a query was conducted of the CDFG’s California Natural Diversity Database (CNDDB) (CDFG 2006) and California Native Plant Society database (CNPS 2006), in order to identify special-status plant or animal species previously recorded in the Palmdale area. The CNDDB lists historical and recently recorded occurrences of both special-status plant and animal species, and the CNPS database lists historical and recent occurrences of special-status plant species. The areas searched include the US Geological Survey (USGS) 7.5-minute quadrangle for Palmdale, as well as the surrounding eight USGS quadrangles: Acton, Alpine Butte, Juniper Hills, Lancaster East, Lancaster West, Littlerock, Pacifico Mountain, and Ritter Ridge. The potential for special-status species to occur in the City is based on the proximity of the recorded occurrences listed in the CNDDB and CNPS databases, geographic ranges of all special-status plant and animal species (whether recorded in the CNDDB or not) known to occur in the region, on-site vegetation and habitat quality, topography, elevation, soils, surrounding land uses, and habitat preferences.

Special-Status Plant Species

SOC Table 4.2-1, Special-Status Plant Species Potentially Occurring in the Planning Area, lists the special-status plant species with the potential to occur within the Planning Area. SOC Table 4.2-1 also describes the habitat requirements for each species and the locations within the Palmdale area where the species could occur, based on knowledge of habitat types and plant communities throughout the Palmdale area. As indicated in SOC Table 4.2-1, the following special-status plant species could potentially occur in the Expansion Area:

- Short-joint beavertail (*Opuntia basilaris var. brachyclada*);
- Peirson’s lupine (*Lupinus peirsonii*); and
- Alkali mariposa (*Calochortus striatus*).

SOC Figure 4.2-3, CNDDB Recorded Species Occurrence, indicates the locations of the CNDDB-recorded occurrences of special-status plant species in the Palmdale area. As indicated SOC Figure 4.2-3, Parry’s spineflower (*Chorizanthe parryi var. parryi*) has been sighted in the vicinity of the northwestern portion of the Expansion Area.

Special-Status Plant Communities

No sensitive plant communities are known to occur within the Expansion Area.

Special-Status Wildlife Species

SOC Table 4.2-2, Special-Status Wildlife Species Potentially Occurring in the Planning Area, lists the special-status wildlife species with the potential to occur within the Planning Area. SOC Table 4.2-2 also describes the habitat requirements for each species and the locations within the Palmdale area where the species could occur. As indicated in SOC Table 4.2-2, the following special-status wildlife species could potentially occur in the Expansion Area:
Coast (San Diego) horned lizard (*Phrynosoma coronatum* (blainvillii population));
Silvery legless lizard (*Anniella pulchra pulchra*);
Coast (California) horned lizard (*Phrynosoma coronatum* (frontale population));
Desert tortoise (*Gopherus agassizi*);
Prairie falcon (*Falco mexicanus*);
Swainson’s hawk (*Buteo swainsonii*);
Le Conte’s thrasher (*Toxostoma lecontei*);
Burrowing owl (*Athene cunicularia*);
Mohave ground squirrel (*Spermophilus mohavensis*);
Pocket mouse (*Chaetodipus fallax pallidus*);
San Joaquin pocket mouse (*Perognathus inornatus inornatus*);
Southern grasshopper mouse (*Onychomys torridus Ramona*); and
American badger (*Taxidea taxus*).

SOC Figure 4.2-3 illustrates the locations of the CNDDB-recorded occurrences of special-status wildlife species in the Palmdale area. As indicated SOC Figure 4.2-3, the following special-status wildlife species have been sighted within the Expansion Area or its vicinity:

- Coast (San Diego) horned lizard (*Phrynosoma coronatum* (blainvillii population));
- Cooper's hawk (*Accipiter cooperii*);
- Conte's thrasher (*Toxostoma lecontei*);
- Mohave ground squirrel (*Spermophilus mohavensis*);
- San Joaquin pocket mouse (*Perognathus inornatus inornatus*); and
- Silvery legless lizard (*Anniella pulchra pulchra*).

**Nesting Birds**

The project area contains suitable nesting habitat for shrub and ground-nesting avian species, such as Bewick’s wren (*Thryomanes bewickii*) and western meadowlark (*Sturnella neglecta*).

**JURISDICTIONAL WATERS AND WETLANDS**

Riparian plant communities occur in and around drainages and low areas that experience at least some degree of seasonal surface water or in areas with a high groundwater table. The presence of water provides habitat for a large variety of trees, shrubs, and herbs. The majority of riparian plant communities occurring in the project area are desert alluvial wash.

The Palmdale Planning Area is located within the Antelope Valley watershed; refer to SOC Figure 4.2-5, Jurisdictional Resources. SOC Figure 4.2-5 shows the watercourses and wetlands within the Palmdale area. There are four major watercourses that drain from the southern mountain ranges and eventually flow north across the Palmdale area (Little Rock Wash, Big Rock Wash, Anaverde Creek, and Amargosa Creek). These watercourses are intermittent or ephemeral, meaning surface water is not present continuously throughout the year.

The project area contains one potentially jurisdictional drainage feature or wetland area under the USACE, RWQCB, and/or CDFG. The USGS Palmdale Quadrangle map (1974) identifies Anaverde Creek, a blue-line stream, extending from north of Avenue P across 8th Street East.
and then along the west side of the railroad tracks within the proposed Expansion Area. Anaverde Creek is an ephemeral wash that flows from south to north. Near the railroad, the creek is highly degraded as a result of previous construction of the railroad and associated maintenance activities. According to the Palmdale Transit Village Specific Plan FEIR, a section of Anaverde Creek was previously channelized with riprap lined banks and channel bottom. Additionally, the channel bottom is covered with silt deposits. In addition, a 630-foot box culvert storm drain and widening of 6th Street East were constructed as a part of the Palmdale Transportation Center in 2005. Naturally occurring wetlands are associated with the existing stream course of the Anaverde Creek. Additionally, riparian vegetation may exist at this water resource. Wetlands and riparian vegetation are of very high value to many wildlife species, particularly birds.

WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations. Development exists throughout the project and adjacent areas, interspersed with vacant properties. The existing development currently limits wildlife movement through the project area. In addition, the project area does not involve a narrow corridor that links large areas of undeveloped open space. Therefore, there is no significant wildlife movement corridor within the project area. The project area does not provide connectivity between large areas of open space on a local or regional scale.

5.9.3 REGULATORY FRAMEWORK

FEDERAL ENDANGERED SPECIES ACT

The Endangered Species Act (ESA) was passed in response to concerns that native plants and animals were in danger of becoming extinct. The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend. The U.S. Fish and Wildlife Service (USFWS) has primary responsibility for terrestrial and freshwater organisms. Under the ESA, species may be listed as either endangered or threatened. “Endangered” species are in danger of extinction throughout all or a significant portion of their range. “Threatened” species are likely to become endangered within the foreseeable future. All plant and animal species, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

Section 9 of the ESA prohibits “take” of threatened or endangered species. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project area generally imposes constraints on development, particularly if development would result in take of the species or its habitat. Under ESA regulations, the impacts to listed species resulting from implementation of a project would require the responsible agency to consult the USFWS. Formal consultations must take place.
with the USFWS pursuant to Section 10 of the ESA, with the USFWS then making a
determination as to the extent of impact to a particular species. If the USFWS determines that
impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts
must be identified.

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) states that all native species of fishes,
amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened
with extinction and those experiencing a significant decline which, if not halted, would lead to a
threatened or endangered designation, will be protected or preserved. Section 2080 of the Fish
and Game Code prohibits "take" of any species determined to be an endangered species or a
threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue,
catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

The State of California considers an "endangered" species one whose prospects of survival and
reproduction are in immediate jeopardy. A "threatened" species is one present in such small
numbers throughout its range that it is likely to become an endangered species in the near
future in the absence of special protection or management. A "rare" species is one present in
such small numbers throughout its portion of its known geographic range that it may become
endangered if its present environment worsens. The rare species designation applies to
California native plants. State threatened and endangered species are fully protected against
take, as defined above. The term "species of special concern" is an informal designation used
by CDFG for some declining wildlife species that are not State candidates for listing. This
designation does not provide legal protection, but indicates that these species are recognized
as sensitive by CDFG.

The CESA, which is administered by the California Department of Fish and Game (CDFG),
mandates that in instances where impacts to a State-listed endangered species would occur,
the lead or responsible agency must contact the CDFG and enter into formal consultation.
Impacts to the State-listed species would be evaluated and identification of mitigation measures
would likely be required. However, CESA allows for take incidental to otherwise lawful
development projects. CESA emphasizes early consultation to avoid potential impacts to rare,
endangered, and threatened species and to develop appropriate mitigation planning to offset
project caused losses of listed species populations and their essential habitats.

CALIFORNIA NATIVE PLANT SOCIETY

The California Native Plant Society (CNPS) has developed an inventory of California's sensitive
plant species. The CNPS inventory provides information regarding the distribution, rarity, and
endangerment of California’s vascular plants. Based on their rarity, the plant species are
categorized into four lists. The CNPS also provides an inventory of plant communities that are
considered sensitive by the State and Federal resource agencies, academic institutions, and
various conservation groups. The level of sensitivity is determined based on number and size
of remaining occurrences, and recognized threats.
MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) prohibits, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird.” The MBTA protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state.

CDFG CODE 3503

Pursuant to CDFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code or any regulation made pursuant thereto. Code Section 3503.5 specifies it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Code or any regulation adopted pursuant thereto. The fully protected birds or parts thereof, which are identified in Code Section 3511(b), may not be taken or possessed at any time.

JURISDICTIONAL WATERS AND WETLANDS

Natural drainage features and wetland areas are regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFG based upon the following policies and regulations.

Clean Water Act Section 404

Regulatory protection for water resources throughout the United States is under the jurisdiction of the USACE. Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into “waters of the United States” without formal consent from the ACOE. The “Waters of the United States” include all waters, tributaries of waters, wetlands adjacent to waters, and all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairies, wet meadows, playa lakes, natural ponds, and other waters that could affect interstate commerce, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters.

The USACE South Pacific Division issued Guidelines for Jurisdictional Delineations for Waters of the United States in the Arid Southwest (June 2001). The purpose of this document was to provide background information concerning physical characteristics of dryland drainage systems. These guidelines were reviewed and used to identify jurisdictional drainage features within the project area.
Wetlands

According to the USACE Wetlands Delineation Manual, Technical Report, three criteria must be satisfied to classify an area as a jurisdictional wetland:

1. A predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation);

2. Soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and

3. Permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology).

Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. A wetland must show connectivity to a stream course, in order for such a feature to be considered jurisdictional.

CITY OF PALMDALE MUNICIPAL CODE

Chapter 14.04, Joshua Tree and Native Desert Vegetation Preservation

The City's Native Plant Ordinance is codified in Palmdale Municipal Code (PMC) Chapter 14.04, Joshua Tree and Native Desert Vegetation Preservation. This Chapter is intended to protect and preserve desert vegetation, and particularly Joshua Trees, so as to retain the unique natural desert aesthetics in some areas of this City. The design of development projects is required to strive to protect and maintain the most desirable and significant of the healthy desert vegetation in a manner consistent with the City General Plan and CEQA.

According to PMC Section 14.04.040, Prohibition of Removal, desert vegetation shall not be removed, nor caused to be removed, on or from any parcel of land, except as provided by the provisions of this Chapter. Additionally, a Native Desert Vegetation Removal Permit shall be required prior to the removal of any native desert vegetation, as defined in this Chapter. According to PMC Section 14.04.050, Desert Vegetation Preservation Plan Requirements, all development proposal applications for sites containing native desert vegetation are required to include a Desert Vegetation Preservation Plan, submitted with the development application, containing specific information, containing the following components, among others:

A. A written report and a site plan which depicts the location of each Joshua tree and California juniper, discusses their age and health, identifies and locates all trees and shrubs which can be saved in place or relocated. The report shall be prepared by a desert native plant specialist.

B. A site landscaping plan showing the proposed location of those Joshua trees or California junipers, and any other native desert vegetation that will remain on-site.

C. A long-term maintenance program for any desert vegetation preserved on the site.
The minimum standard of preservation is two Joshua trees per gross acre for the gross site area covered by the development application. Where soil conditions prohibit preservation of Joshua trees or where the total number of healthy trees per gross acre is not equal to two per acre, the minimum standard is determined by a desert native plant specialist.

**CITY OF PALMDALE ZONING ORDINANCE**

**Section 86.01, Landscaping Requirements**

Pursuant to PZO Section 86.01, *Landscaping Requirements*, in all projects proposed or required to provide landscaping as part of the development plan, all landscaping shall conform to provisions of PMC Section 14.04 (Joshua Tree and Native Desert Vegetation Preservation). Additionally, except in the A-1 and R-1 zones, all plants utilized in required landscape areas shall be from the City of Palmdale Recommended Plant List or from plants listed as being suitable for Palmdale’s climate.

**Chapter 10 Article 100, Hillside Management**

The City’s Hillside Ordinance is codified in PZO Chapter 10 Article 100, *Hillside Management*. This Article is intended to implement the General Plan goals and policies, as they relate to development and resource management in the City’s hillside areas. These Code provisions allow for orderly and sensitive development in hillside areas in conjunction with the preservation of natural open space on steeper terrain. The specific goals and policies that reflect those contained in the General Plan and provide the purpose and intent for this Chapter include the following, among others:

- To encourage retention of natural drainage patterns and the preservation of significant riparian areas, both of which are commonly located in hillside areas; and

- To allow density transfers where appropriate to facilitate development in more developable locations while retaining significant natural slopes and areas of environmental sensitivity.

**5.9.4 SIGNIFICANCE THRESHOLD CRITERIA**

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study includes questions relating to biological resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Contain a blue-line stream, spring, seep, or wetland;

- Include changes in the course or volume of water in a local stream or wetland which require Department of Fish and Game or Army Corps of Engineers permits;

- Result in the loss of, or changes to, significant stands of riparian vegetation;
• Adversely impact a significant stand of desert vegetation on the site;

• Result in a reduction of the numbers of any unique, rare or endangered species of plants;

• Result in the introduction of invasive, non-native species of plants into an area; or create a barrier to the normal replenishment of existing native plant species;

• Result in a significant reduction in acreage of native vegetation;

• Result in a significant loss of biological diversity;

• Result in the reduction of the numbers of any unique, rare or endangered species of animals;

• Be located in a Significant Ecological Area where the introduction of animals associated with urbanization could adversely affect native species; or where the project will result in a barrier to the migration or movement of animals; refer to Section 8.0, Effects Found Not to be Significant; and/or

• Cause significant deterioration of, or loss of, existing fish or wildlife habitat.

Section 15065(a) (Mandatory Findings of Significance) of the CEQA Guidelines states that a project may have a significant effect on the environment if:

. . . the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal species . . .

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.9.5 IMPACTS AND MITIGATION MEASURES

JURISDICTIONAL WATERS AND WETLANDS

Thresholds:

Does the project contain a blue-line stream, spring, seep, or wetland?

Will the project include changes in the course or volume of water in a local stream or wetland which require Department of Fish and Game or Army Corps of Engineers permits?

Will the project result in the loss of, or changes to, significant stands of riparian vegetation?
Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). The projects and programs proposed within the Expansion Area would involve public facilities, and infrastructure and transportation improvements. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

The USGS Palmdale Quadrangle map (1974) identifies Anaverde Creek, a blue-line stream, extending from north of Avenue P across 8th Street East and then along the west side of the railroad tracks within the proposed Expansion Area. Jurisdictional waters and/or wetlands may exist at this water resource. Wetlands and riparian vegetation are of very high value to many wildlife species, particularly birds. It is not anticipated that future development within the Palmdale Transit Village Specific Plan area would impact this section of the Anaverde Creek, since all the improvements have already been constructed. However, potential development within the proposed Expansion Area, east of the railroad tracks, could impact existing wetlands or riparian vegetation if located on a site that contained these resources. Because these habitats vary in wildlife value, the significance of impacts would also vary.

The GPEIR concluded that development allowed by the proposed land use plan would significantly impact biological resources by causing the loss of such resources (i.e., wetlands or riparian vegetation). The impacts would be reduced with implementation of the mitigation measures, but would not be reduced to a level less than significant. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s impact upon wetlands and/or riparian vegetation is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to wetlands and/or riparian vegetation than previously identified.

Due to the conceptual nature of future development, the City would require biological assessments and reports, as part of the CEQA review process, for projects in known or suspected natural habitat areas prior to project approval. These reports would be used to establish significant natural habitat areas and ecologically sensitive zones, in order to prevent disturbance and degradation of these areas. Impacts to wetlands and riparian vegetation within the project area would be mitigated and resources protected through avoidance, habitat restoration, and preservation in compliance with the regulatory (ACOE, RWQCB, and CDFG) requirements. More specifically, each individual project would be subject to compliance with ACOE regulations under Section 404 and CDFG regulations under Section 1601 to 1603, in order to mitigate potential impacts to wetlands, riparian vegetation, or other habitats. Any disruption of wetlands or riparian habitat would require consultation with these two agencies. The City would continue to coordinate with ACOE and CDFG to determine the best means of providing protection, on a project-by-project basis. Implementation of the recommended mitigation measures as identified in the reports would be required as development occurs.
**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Policy ER2.1.3:** Solicit and utilize all available sources of local, regional, state and federal funds to acquire significant wetland areas, in order to minimize the disturbance and prevent damage from erosion, turbidity, siltation, a loss of wildlife and vegetation, or the destruction of the natural habitat.

**Policy ER2.1.4:** Preserve natural drainage courses and riparian areas where significant concentrations of ecological resources exist.

**Policy ER2.1.5:** Preserve and maintain significant Joshua tree woodlands and other significant habitat areas. Early in the review of development projects, the feasibility of preserving any significant vegetation present on-site should be examined.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**NATIVE VEGETATION AND SENSITIVE SPECIES**

**Thresholds:**

*Is there a significant stand of desert vegetation on the site, which will be adversely impacted by the project?*

*Will the project result in the introduction of invasive, non-native species of plants into an area; or create a barrier to the normal replenishment of existing native plant species?*

*Will the project result in a significant reduction in acreage of native vegetation?*

*Will the project result in a significant loss of biological diversity?*

*Will the project cause significant deterioration of, or loss of, existing fish or wildlife habitat?*

**Impact Analysis:** As discussed above, native vegetation (including Joshua trees), and sensitive habitats, plant, or wildlife species may be present in the project area. The proposed project anticipates the development of residential and non-residential uses, as well as public facilities, and infrastructure and transportation improvements. Therefore, future development and improvements could adversely impact biological resources by removing Joshua trees, other native vegetation, and/or special-status species/habitat occurring within the project area. Additionally, project implementation could introduce non-native plant species into the project area.
The GPEIR concluded that development allowed by the proposed land use plan would significantly impact biological resources by causing the loss of such resources (i.e., Joshua trees, other native vegetation, and/or sensitive species). The impacts would be reduced with implementation of the mitigation measures, but would not be reduced to a level less than significant. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s impact upon Joshua trees, other native vegetation, and/or sensitive species is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to Joshua trees, other native vegetation, and/or sensitive species than previously identified.

Due to the conceptual nature of future development, site specific proposals would require individual assessments of potential impacts to biological resources, including impacts to endangered, threatened, rare, or locally designated species and their habitats, as part of the future projects’ CEQA review processes; refer to Mitigation Measures BIO-1 through BIO-7. If necessary, mitigation would be required on a project-by-project basis to reduce potential biological impacts to a less than significant level. Therefore, the City would continue to promote the protection of sensitive, rare, threatened, and endangered species found in the project area through the required biological assessments. In addition, the City participates in the West Mojave Coordinated Management Plan (not adopted), which provides management prescriptions for desert tortoise and Mojave ground squirrel. All future development within the project area would be subject to compliance with the City’s Native Desert Vegetation Ordinance, which is intended to preserve a number of specimen quality juniper and Joshua trees, and encourage the use of native vegetation in new development landscaping. The landscaping for all new developments is required to conform to the requirements set forth in the Native Desert Vegetation Ordinance. In keeping with the intent of this Ordinance, the City may require preservation of significant stands through design review processes on individual projects. The City’s Engineer would review landscape plans for all new development, in order to ensure compliance with the City’s requirements. This process enables the City to promote native vegetation and set guidelines for landscaping. All landscaping would be required to conform to the City’s Approved Plant and Tree List. Following compliance with the recommended mitigation, which requires preparation of a Biological Resources Assessment, as well as the Policies, regulations, and guidelines set forth in the City’s General Plan, Municipal Code, and development review process, project implementation would result in a less than significant impacts to endangered, threatened, rare, or locally designated species and their habitats. Future residential development would also require further review for compliance with USFWS and CDFG, as applicable.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Compliance with Policy ER2.1.5 and the following is required:

Policy ER2.2.1: Cooperate with the preparation and the implementation of the West Mojave Coordinated Management Plan for protection of desert tortoise and Mohave ground squirrel.
Project Mitigation Measures:

**BIO-1**  
A Biological Resources Assessment shall be conducted for future development projects in known or suspected natural habitat areas by a qualified Biologist, prior to an application being deemed complete, to determine the potential presence/absence of candidate, sensitive, or special status species, as well as the presence/absence of habitat that would support these species.

**BIO-2**  
If deemed necessary by the site-specific Biological Resources Assessment, a Focused Survey of the proposed development site shall be conducted by a qualified Biologist, prior to any ground disturbance, for sensitive plant and wildlife species that are federally- or state-listed as endangered or threatened, having moderate to high potential for occurrence on the proposed development site.

**BIO-3**  
If deemed necessary by the Biological Resources Assessment, a pre-construction Burrowing Owl Survey shall be conducted to determine the presence/absence of the burrowing owl on the proposed development site, before any ground disturbance occurs. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG and the Burrowing Owl Consortium (BOC). If burrowing owls are determined to be present on the development site, mitigation for potential impacts to owls shall follow the guidelines outlined by the BOC, including passive relocation during the non-breeding season.

**BIO-4**  
If deemed necessary by the Biological Resources Assessment, focused Trapping Surveys shall be conducted to determine the presence/absence of the Mohave ground squirrel on the proposed development site prior to any ground disturbance. The Surveys shall be conducted according to the guidelines established by CDFG. If Mohave ground squirrel is determined to be present onsite, a State Permit shall be obtained pursuant to CDFG Code Section 2081.

**BIO-5**  
If deemed necessary by the Biological Resources Assessment, a focused Coast (San Diego) horned lizard Survey shall be conducted to determine the presence/absence of this species on the proposed development site prior to any ground disturbance. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG.

**BIO-6**  
Impacts to migratory wildlife potentially impacted by future development shall be fully evaluated, including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds.

**BIO-7**  
Project construction activities (including disturbances to vegetation) shall take place outside of the breeding bird season (February 1 to September 1), in order to avoid take (including disturbances, which would cause abandonment of active nests containing eggs and/or young). If project construction activities cannot avoid the breeding season, nest surveys shall be conducted and active nests shall be avoided and provided with a minimum buffer, as determined by a biological monitor.

5.9.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT WITHIN THE CITY COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO BIOLOGICAL RESOURCES.

Impact Analysis: The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to biological resources is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-7. The GPEIR concluded the proposed General Plan and related projects would cumulatively impact biological resources. The regional impacts that would result from General Plan buildout and cumulative development in the Antelope Valley include the loss of open space and ecological systems, which include desert vegetation and habitat. Urban land uses would remove native vegetation and wildlife with domestic plant and animal species. These impacts can be reduced with mitigation but not to a level of insignificance.

The GPEIR concluded development allowed by the Land Use Plan would “significantly impact biological resources by causing the loss of Joshua trees and other native vegetation, destroying rare and endangered species and their habitat, disrupting wildlife movement corridors, and introducing imported plant and animal species.” Two plant communities found within the Planning Area, which are considered sensitive by the California Department of Fish and Game, are riparian and oak woodlands. Development in these areas would result in the loss of these sensitive plant communities and consequently the loss of habitat for associated animal species. Overall, impacts on biological resources resulting from development accommodated by the General Plan are considered significant. The degree of significance would depend upon the level of mitigation required on a project-by-project basis. When viewed in conjunction with other developments planned for the City, the loss of native vegetation and wildlife habitat, and the displacement of wildlife species in the project area could be considered a negative cumulative effect. However, the General Plan’s goals, policies, and programs would serve as mitigation for the environmental impacts of development under the General Plan. These involve the adoption of standards and ordinances that protect biological resources from damage and destruction, including the following:

- PMC Chapter 14.04, Joshua Tree and Native Desert Vegetation Preservation;
- PZO Section 86.01, Landscaping Requirements;
- PZO Chapter 10 Article 100, Hillside Management;
- Open Space and Conservation Plan (provides for acquisition and maintenance of open space areas, which would assist in preserving sensitive habitats and species);
- Adoption of Significant Ecological Areas (SEA); and
- Participation in the West Mojave Coordinated Management Plan (provides management prescriptions for desert tortoise and Mojave ground squirrel).
The City would continue to promote the protection of sensitive, rare, threatened, and endangered species found in the project area through the required biological assessments. For each development project, impacts to biological resources would be mitigated through compliance with the City’s standards and ordinances, the CEQA process, and where appropriate, acquisition of the required regulatory approvals from the resource agencies. Therefore, cumulative impacts to special status wildlife and habitat are currently being mitigated on a project-by-project basis and in accordance with the City’s General Plan goals, policies, and programs.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Measures Incorporated.

**5.9.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

Potential impacts to biological resources from project implementation would be less than significant following compliance with the GPEIR Mitigation Measures and Policies, Code requirements, and recommended mitigation measures.
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5.10 Cultural Resources
5.10 CULTURAL RESOURCES

5.10.1 INTRODUCTION

The purpose of this section is to identify cultural resources within the project area and evaluate potential impacts to such resources that could result from project implementation and buildout of the project area. Cultural resources include paleontological resources (the fossilized remains of prehistoric plants and animals), archaeological resources (the artifacts, objects, and sites of the people who occupied the Antelope Valley in prehistoric times), and historic resources (sites, structures, and objects of the people who occupied the valley in historic times). Mitigation measures to reduce impacts to cultural resources are provided, as necessary.

This section is based upon the following resources:

- City of Palmdale General Plan Environmental Resources Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993); and

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with cultural resources a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.16 (Cultural Resources) (pages 4-255 through 4-258). Impacts on archaeological sites include direct impacts where grading and earth moving activities for structures, roadways, or infrastructure physically remove the site, and indirect impacts due to vandalism in sites that are accessible to the public. The GPEIR also concluded paleontological resources would be directly impacted by implementation of the Land Use and Circulation Elements. The GPEIR concluded that there is a high probability that additional, as yet unidentified resources are present, and that development shown in the proposed Land Use Plan would result in impacts to, or loss of, more resources.

The GPEIR concluded that the historical resources in the older sections of the City may be affected by increases in development density under the proposed General Plan, which would encourage redevelopment that would result in the loss of sites. Direct impacts include demolition and removal of sites by earth moving activities.
5.10.2 EXISTING CONDITIONS

PALEONTOLOGICAL RESOURCES

A paleontologic sensitivity study was prepared citywide as part of the GPEIR. Research included an examination of geologic mapping, paleontologic and geologic literature, and institutional site records searches. Twelve rock units were identified citywide, as part of the study. The units were evaluated for both identified paleontological sensitivity and potential paleontological resources, and were assigned to one of three classifications: High Potential; Unknown Potential; and Low Potential; refer to GPEIR Exhibit 3-56 (Paleontological Sensitivity Map). According the GPEIR Exhibit 3-56, the project area is classified “Undetermined” (Unknown Potential) for paleontologic resources. There are two rock units in Palmdale, which have an unknown potential for producing paleontological resources: the Vasquez Formation and the Pleistocene Alluvium. The Vasquez Formation and the extensive deposits of Pleistocene alluvium have not been subject to field assessments for resources by qualified paleontologists. The Vasquez Formation is approximately 38 million to 22.5 million years old dating it back to the Oligocene Age. The Pleistocene alluvium is covered by a thin layer of recent alluvium. The GPEIR concludes there is a high probability of identifying additional paleontological sites as General Plan buildout occurs.

It is noted, the SOC concluded paleontological resources would not have changed, since 1993 when the GPEIR was prepared, given the nature of the resource and the length of time required to create them.

ARCHAEOLOGICAL RESOURCES

Palmdale lies at the intersection of two natural transportation corridors that have been the major routes to and through the Antelope Valley since prehistoric time. Soledad Canyon, one of the few passes through the San Gabriel Mountains, provides access to the Los Angeles basin and other coastal regions. The mouth of Soledad Canyon is a natural terminus for routes across the Antelope Valley to the Owens, Tehachapi, and San Joaquin Valleys. The San Andreas Fault through the foothills and along the base of the San Gabriel Mountains is a well-watered route from Cajon Pass and the Mojave River through the Leona Valley to Tejon Pass and the San Joaquin Valley. These natural transportation corridors were used by the early native American occupants of the valley, as well as later explorers and historic settlers.

The majority of archaeological investigations in the Antelope Valley have been conducted in the past 20 years. Archaeologists have learned that the Antelope Valley has been inhabited for the past 5,000 years, and possibly prior to that. The earliest cultural period for which there is evidence is the Pinto Period, which dates back to at least 6,000 years ago. Definitive evidence to specify a time span for the earliest occupation of the Antelope Valley and the Palmdale area has not been identified. The first known inhabitants of the Antelope Valley were native Americans of several tribes who camped on the valley floor and in the foothills. The cultural identities of the earlier prehistoric peoples are unknown.

The June 2006 archival records search conducted at the California State University Archaeological Information Center in Fullerton identified 317 recorded prehistoric and historical archaeological sites within the Palmdale Planning Area, according to USGS Quadrangles. The
Expansion Area is located primarily within the Palmdale Quadrangle where 106 sites have been identified. However, portions of the Expansion Area also extend into the Lancaster East and Ritter Ridge Quadrangles where 47 and 126 sites have been identified, respectively. The SOC concluded these three areas contain a particularly high density of cultural resources.

SOC Figure 4.5-1 (Areas of Cultural Resource Sensitivity) illustrates the locations within the General Plan area that have the highest density of cultural resources on record. As indicated in Figure 4.5-1, the Air Force Plant 42 area, which is located within the proposed Expansion Area, is identified as having concentrations of cultural resources. Additionally, the southern portion of the Expansion Area is located immediately north of an area identified as having concentrations of cultural resources.

Sacred Lands

As discussed in the Government Code Section 65352.3, SB 18/Sacred Lands File Search Section below, a Sacred Lands File search was conducted in September 2010 by the Native American Heritage Commission (NAHC). The NAHC’s search determined that no Native American cultural resources were found within one-half mile radius of the area of potential effect (APE).

HISTORICAL RESOURCES

Historic Background

Recorded history begins in the valley in the late 1700s. Between 1772 and 1857, a number of travelers came through the valley. Cattle and sheep herding began in the western end of the valley in 1855 with Edward Beale’s purchase of the La Liebre Ranch. Other settlers came in the 1860s and set up ranches in the Elizabeth Lake region and the southern foothills and the first school was established at Elizabeth Lake. Dry farming and orchards began to develop in the 1890s.

The Southern Pacific Railroad completed the San Francisco-Los Angeles line through the valley in 1876. The inexpensive and rapid transportation it provided allowed homesteading and farming to flourish. This, combined with the wet years of the late 1880s and early 1890s, caused the first boom of the Antelope Valley to develop.

The community of Palmenthal was established in the 1880s by 60 to 70 German immigrant families from Nebraska and Illinois near the present 20th Street East and Avenue R. In 1890, the name of the post office was changed from Palmenthal to Palmdale, and by 1899 the community had moved to the area of the new railroad station.

The Palmdale Irrigation District (Palmdale Water Company) was formed in 1918 and began a joint five-year construction project with the Little Rock Creek Irrigation District in 1918 for the completion of the Little Rock Dam. The communities of Pearland and Pearblossom were established in the 1920s and pear orchards replaced almonds. By the 1920s, pumped irrigation water became relatively inexpensive, and alfalfa spread over the valley. Ample water and the resulting pear orchards, brought the second agricultural boom to the Antelope Valley in the 1920s.
World War II saw training activities established at Muroc Dry Lake (now Edwards Air Force Base), War Eagle Field (now Mira Loma), and a training facility for B-52 pilots at Palmdale Airport (now Air Force Plant 42). Tremendous increases were made in the agricultural output of the valley to support the war effort.

The third boom in the Antelope Valley was brought about by the aircraft industry. After World War II, the Air Force established Plant 42, and during the early 1950s aircraft industries moved to the valley from more congested areas of the Los Angeles basin.

The construction of the California Aqueduct and the Antelope Valley Freeway in the 1970s brought additional water and accessibility to the valley. The increased availability of water and improved transportation made the valley a desirable place to locate industrial development and homes for commuters, from the Los Angeles basin.

The most recent boom in the valley occurred during the 1980s when affordable housing available to commuters from the Los Angeles basin brought a residential construction boom, and increased production at Air Force Plant 42 brought jobs to the area. The vastly increased residential, commercial, office, and industrial development in the City of Palmdale during the 1980s made it the fastest growing community in California during the decade, according to the 1990 Census.

Historic Structures

National Historic Landmarks (NHL) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. There are no NHL located within the City of Palmdale.¹ The National Register of Historic Places is the official list of the Nation’s historic places worthy of preservation. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. There are no National Register listings located within the City of Palmdale.²

California Historical Landmarks (CHL) are buildings, sites, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value. There are no CHL located within the City of Palmdale.³ The California Register of Historical Resources (California Register) includes buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. There are no California Register listings located within the City of Palmdale.⁴

⁴ Ibid.
The General Plan includes a list of the City’s potential historic structures, which was compiled by the Antelope Valley Historical Society in 1989. These potential historic structures are outlined in General Plan Table ER-1 (Potential Historic Structures) and illustrated in GPEIR Exhibit 3-54 (Potential Historic Structures). A review of General Plan Table ER-1 and GPEIR Exhibit 3-54 indicates there are approximately 21 potential historic structures located within or immediately adjacent to the Expansion Area. It is noted the list is based solely on the structure’s existence for at least 50 years. Historical significance should not be inferred from this listing until such time as these (and potentially other) structures are evaluated to determine their significance.

**5.10.2 REGULATORY FRAMEWORK**

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA) are the basic Federal and State laws governing preservation of historic and archaeological resources of national, State, regional, and local significance.

**FEDERAL REGULATIONS**

**National Historic Preservation Act of 1966**

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

**Section 106**

Section 106 of the NHPA states that Federal agencies with direct or indirect jurisdiction over Federally funded, assisted or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations, in Title 36 of the Code of Federal Regulations (CFR) Part 800, on such undertakings. The Section 106 process involves identification of significant historic resources within an “area of potential effect;” determination if the undertaking will cause an adverse effect on historic resources; and resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public, including individuals, organizations and agencies (such as the California Office of Historic Preservation), are provided with opportunities to participate in the process.
National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA of 1966 as “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The NRHP recognizes properties that are significant at the national, State, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- **Criterion A.** It is associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B.** It is associated with the lives of persons who are significant in our past;
- **Criterion C.** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- **Criterion D.** It has yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces or graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that are primarily commemorative in nature, are not considered eligible for the NRHP, unless they satisfy certain conditions. In general, a resource must be 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

National Historic Landmarks (NHL) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. There are no NHL located within the City of Palmdale. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. There are no National Register listings located within the City of Palmdale.

**Secretary of the Interior’s Standards for the Treatment of Historic Properties**

Evolving from the Secretary of the Interior’s Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 CFR 67. Neither technical nor prescriptive, these standards are “intended to promote responsible preservation practices that help protect our Nation’s irreplaceable cultural
resources.” “Preservation” acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. “Rehabilitation” not only incorporates the retention of features that convey historic character but also accommodates alterations and additions to facilitate continuing or new uses. “Restoration” involves the retention and replacement of features from a specific period of significance. “Reconstruction,” the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

STATE REGULATIONS

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.” Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. The CRHR includes buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. There are no California Register listings located within the City of Palmdale.

The evaluation criteria for inclusion in the CRHR are cited in Public Resources Code Section 5024.1(a). A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

- **Criterion 2.** It is associated with the lives of persons important in our past.

- **Criterion 3.** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

- **Criterion 4.** It has yielded, or may be likely to yield, information important in history or prehistory.

Public Resources Code Section 5024.1[B] states that any agency proposing a project that could potentially impact a resource listed on the CRHR must first notify the State Historic Preservation Officer, and must work with the officer to ensure that the project incorporates “prudent and feasible measures that will eliminate or mitigate the adverse effects.”
California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the City or Town Council in whose jurisdiction it is located), be recommended by the State Historical Resources Commission, and be officially designated by the Director of California State Parks. There are no CHL located within the City of Palmdale.

The specific standards now in use were first applied in the designation of CHL #770; CHLs #770 and above are automatically listed in the CRHR. To be eligible for designation as a “landmark,” a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the State or within a large geographic region (northern, central, or southern California);

- Associated with an individual or group having a profound influence on the history of California; or

- A prototype of, or an outstanding example of, a period, style, architectural movement, or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. Similarly, resources that have achieved significance within the past 50 years may be eligible for inclusion in the CRHR if enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Points of Historical Interest

California Points of Historical Interest (Points) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a landmark and a “point.” If a point is subsequently granted status as a landmark, the point designation will be retired. There are no Points located in the City of Palmdale.\(^5\)

To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

- The first, last, only or most significant of its type within the local geographic region (city or county);

\(^5\) Ibid.
• Associated with an individual or group having a profound influence on the history of the local area; or

• A prototype of, or an outstanding example of, a period, style, architectural movement, or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

**State Historical Building Code**

Created in 1975, the State Historical Building Code (SHBC) provides regulations and standards for the preservation, restoration, rehabilitation, or relocation of historic buildings, structures, and properties that have been determined by an appropriate local or State governmental jurisdiction to be significant in the history, architecture, or culture of an area. Rather than being prescriptive, the SHBC constitutes a set of performance criteria. The SHBC is designed to help facilitate restoration or change of occupancy in such a way as to preserve original or restored elements and features of a resource; to encourage energy conservation and a cost-effective approach to preservation; and to provide for reasonable safety from earthquake, fire, or other hazards for occupants and users of such “buildings, structures and properties.” The SHBC also serves as a guide for providing reasonable availability, access, and usability by the physically disabled.

**Government Code (Section 65352.3, SB 18/Sacred Lands File Search)**

Pursuant to Government Code Section 65352.3, prior to the adoption or any amendment of a city or county’s general plan (proposed on or after March 1, 2005), the city or county shall conduct consultations with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC) for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that are located within the city or county's jurisdiction.

The NAHC conducted a Sacred Lands File search in September 2010 and determined that no Native American cultural resources are identified within one-half mile radius of the APE. The NAHC provided a List of Culturally Affiliated Native American contacts and the listed Native American contacts were subsequently consulted by the City. The Culturally Affiliated Native American contacts did not report the presence of any Native American cultural resource within the project area.

**California Health and Safety Code (Section 7050.5)**

California Health and Safety Code Section 7050.5 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those
of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

**California Public Resources Code (Section 5097.98)**

Section 5097.98 of the California Public Resources Code stipulates that whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The decedents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendents shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

**California Environmental Quality Act**

Pursuant to the CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historical resources or identified as significant in a local survey conducted in accordance with State guidelines are also considered historical resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be an historical resource as defined in California Public Resources Code (PRC) Section 5024.1. Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of an historical resource may have a significant effect on the environment.

**CITY OF PALMDALE GENERAL PLAN**

The Palmdale General Plan Environmental Resources Element addresses the City’s archaeological, paleontological, and historical resources. General Plan Table ER-1 provides the listing and Exhibit ER-6 illustrates the general locations of potential historic structures. In addition to age, the City considers the following factors when evaluating a structure’s significance:

1. Architectural features unique to the region, such as:
   a. Outstanding example within the region of an architectural style or of a particular architect’s work.
   b. Use of construction techniques or materials unique to the region.
2. Importance of the structure in the history of Palmdale.
3. Existing or restorable condition of the structure.

4. Physical and economic feasibility of possible relocation.

5. Physical and economic feasibility of possible restoration.

6. Potential reuse for the structure following restoration/relocation.

The following goal and objective are specified in the Environmental Resources Element regarding cultural resources:

Goal ER7: Protect historical and culturally significant resources which contribute to the community's sense of history.

Objective ER7.1: Promote the identification and preservation of historic structures, historic sites, archaeological sites, and paleontological resources in the City.

5.10.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study includes questions relating to cultural resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s);

- Result in potential adverse impacts on paleontological resources; and/or

- Disturb any human remains, including those interred outside of formal cemeteries feature.

Under CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of a historical resource is defined as physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource would be materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register, a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code. In general, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties and associated guidelines shall be considered as mitigated to below the level of significance.
Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.10.5 IMPACTS AND MITIGATION MEASURES

ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES

Thresholds:

Would the project result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

Would the project result in potential adverse impacts on paleontological resources?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). The projects and programs proposed within the Expansion Area involve public facilities, and infrastructure and transportation improvements. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

According to GPEIR Exhibit 3-56, the Expansion Area is classified “Undetermined” (Unknown Potential) for paleontologic resources. However, the GPEIR concludes there is a high probability of identifying additional paleontological sites as General Plan buildout occurs. Therefore, ground-disturbing activities associated with future development and improvements within the Expansion Area could unearth undocumented subsurface paleontological resources.

As indicated in SOC Figure 4.5-1, the Air Force Plant 42 area, which is located in the northern portion of the Expansion Area, is identified as having concentrations of cultural resources. Additionally, the southern portion of the Expansion Area is located immediately north of an area identified as having concentrations of cultural resources. A total of 279 sites have been identified in the Palmdale, Lancaster East, and Ritter Ridge Quadrangles, which include portions of the Expansion Area. The SOC concluded these three quads contain a particularly high density of cultural resources. The probability of discovering additional archaeological sites in the Expansion Area appears to be moderately high. Therefore, ground-disturbing activities, such as grading or excavation, associated with future development and improvements within the Expansion Area could unearth undocumented subsurface archaeological resources.
Overall, ground-disturbing activities associated with future development and public facilities, and infrastructure and transportation improvements within the Expansion Area could unearth undocumented subsurface paleontological and/or archaeological resources, resulting in adverse impacts. Impacts on these resources include direct impacts where grading and earth moving activities for structures, roadways, or infrastructure physically remove the resource, and indirect impacts due to vandalism in resource sites that are accessible to the public. The GPEIR concluded paleontological resources would be directly impacted by implementation of the Land Use and Circulation Elements. The GPEIR also concluded that there is a high probability that additional, as yet unidentified, archaeological resources are present, and that development shown in the proposed Land Use Plan would result in impacts to, or loss of, more resources. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s impact upon paleontological and archaeological resources is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to paleontological and/or archaeological resources than previously identified.

Future development and public facilities, and infrastructure and transportation improvements within the Expansion Area do not involve site-specific projects. As site-specific projects are proposed, they would be reviewed on a project-by-project basis, in order to determine the potential impacts to paleontological and/or archaeological resources. Individual development projects would be required to mitigate potential impacts on a project-by-project basis. It is the City's goal to protect historical and culturally significant resources, which contribute to the community’s sense of history (Goal ER7). To this end, the City continuously promotes the identification and preservation of historic structures, historic sites, archaeological sites, and paleontological resources (Objective ER7.1). Accordingly, all future development and improvements within the project area would be subject to compliance with the GPEIR Policies, which are intended to reduce potential impacts to paleontological and/or archaeological resources to less than significant. Cultural resource information maps (i.e., paleontological, archaeological, and historical) have been prepared by the City, in order to identify areas with a high potential for resource sensitivity. The maps are used to evaluate the need for cultural resource surveys prior to development. Namely, Policy ER7.1.3 requires that new development protect significant paleontological and archaeological resources (as well as historical resources) or provide for other appropriate mitigation. Additionally, Policy ER7.1.4 requires that special studies/surveys be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map. To further lessen potential impacts on paleontological and/or archaeological resources, mitigation is recommended outlining the procedural requirements, in the event resources are unearthed during excavation and grading activities. Potential impacts to paleontological and/or archaeological resources attributed to future development and public facilities, and infrastructure and transportation improvements within the Expansion Area are considered less than significant with adherence to Mitigation Measure CUL-1 and the GPEIR Policies.

Mitigation Programs:

GPEIR Mitigation Measures and Policies:

Policy ER7.1.3: Require that new development protect significant historic, paleontological, or archaeological resources, or provide for other appropriate mitigation.
Policy ER7.1.4: Develop and maintain a cultural sensitivity map. Require special studies/surveys to be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map.

Policy ER7.1.6: Cooperate with private and public entities whose goals are to protect and preserve historic landmarks and important cultural resources.

Project Mitigation Measures:

CUL-1 In the event that archeological and/or paleontological resources are unearthed during excavation and grading activities of any future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, the contractor shall cease all earth-disturbing activities within a 100-meter radius of the area of discovery and shall retain a qualified archaeologist and/or paleontologist to evaluate the significance of the finding and appropriate course of action. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. Work within the area of discovery shall resume only after the resource has been appropriately mitigated.


HISTORICAL RESOURCES

Threshold: Would the project result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

Impact Analysis: A review of Table 5.10-1 and GPEIR Exhibit 3-54 indicates there are approximately 21 potential historic structures located within or immediately adjacent to the proposed Expansion Area. Given this listing would not be verified until such time as these (and potentially other) structures are evaluated to determine their significance, additional historic structures may be present in the project area. Therefore, future development and public facilities, and infrastructure and transportation improvements within the Expansion Area could alter or destroy a historical resource. The GPEIR concluded that the historical resources in the older sections of the City may be affected by increases in development density under the proposed General Plan, which would encourage redevelopment that would result in the loss of sites. Direct impacts include demolition and removal of sites by earth moving activities. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s impact upon historical resources is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to historical resources than previously identified.
Future development and public facilities, and infrastructure and transportation improvements within the Expansion Area do not involve site-specific projects. As site-specific projects are proposed, they would be reviewed on a project-by-project basis, in order to determine their historical significance and potential impacts associated with the project. Individual development projects would be required to mitigate potential impacts on a project-by-project basis. It is the City’s goal to protect historical and culturally significant resources, which contribute to the community’s sense of history (Goal ER7). To this end, the City continuously promotes the identification and preservation of historic structures and sites (Objective ER7.1). Accordingly, all future development and improvements within the project area would be subject to compliance with the GPEIR Policies, which are intended to reduce potential impacts to historical resources to less than significant. Cultural resource information maps (i.e., historical) have been prepared by the City, in order to identify areas with a high potential for resource sensitivity. The maps are used to evaluate the need for cultural resource surveys prior to development. Compliance with Policy ER7.1.3 requires that new development protect significant historic resources or provide for other appropriate mitigation. Policy ER 7.1.4 requires that special studies/surveys be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map. In compliance with Policy ER7.1.2, the City would continue to promote maintenance, rehabilitation, and appropriate reuse of identified landmarks where feasible. Additionally, the City would discourage historic landmark properties from being altered in such a manner as to significantly reduce their cultural value to the community (Policy ER7.1.8). Potential impacts to historical resources from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area are considered less than significant with adherence to the specified GPEIR Policies.

**Mitigation Programs:**

GPEIR Mitigation Measures and Policies: Refer to GPEIR Policy ER7.1.3, Policy ER7.1.4, and Policy ER7.1.6 above, and the following:

Policy ER7.1.1: Identify and recognize historic landmarks from Palmdale’s past.

Policy ER7.1.2: Promote maintenance, rehabilitation, and appropriate reuse of identified landmarks where feasible.

Policy ER7.1.7: Promote recognition, understanding, and enjoyment of unique historical resources within the community by identifying resources through the use of landmark designation plaques, directional signage, self-guided tours, school curriculum, programs and events.

Policy ER7.1.8: Discourage historic landmark properties from being altered in such a manner as to significantly reduce their cultural value to the community.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
HUMAN REMAINS

Threshold: Would the project disturb any human remains, including those interred outside of formal cemeteries feature?

Impact Analysis: No conditions exist that suggest human remains are likely to be found within the Expansion Area. Due to the level of past disturbance in the area, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or disturbance activities. Notwithstanding, Palmdale lies at the intersection of Soledad Canyon and the San Andreas Fault, which are natural transportation corridors that have been the major routes to and through the Antelope Valley since prehistoric time. These natural transportation corridors were used by the early native American occupants of the valley, as well as later explorers and historic settlers. Therefore, ground-disturbing activities, such as grading or excavation, from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area have the potential to disturb human remains. If human remains were found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant. Implementation of Mitigation Measure CUL-2 would further minimize potential impacts by ensuring appropriate examination, treatment, and protection of human remains, if any are discovered.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to GPEIR Policy ER7.1.4 and Policy ER7.1.6 outlined above, and the following:

Policy ER7.1.5: When human remains, suspected to be of Native American origin are discovered, cooperate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate disposition of the human remains and any associated grave goods.

Project Mitigation Measures:

CUL-2 In the event that human remains are unearthed during excavation and grading activities from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, all activity shall cease
immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Measures Incorporated.

### 5.10.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Buildout of the Expansion Area in Accordance with the General Plan and Other Related Development Throughout the City Could Cumulatively Impact Cultural Resources.**

**Impact Analysis:** The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to cultural resources is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-19.

Study conducted as part of the GPEIR determined the Palmdale area contains identified cultural resources and there is a high probability that additional, as yet unidentified, resources are present. The development shown in the Land Use Plan, increased population, and larger Planning Area would result in impacts to or loss of more cultural resources. Impacts on archaeological sites would include direct impacts where grading and earth moving activities for structures, roadways, or infrastructure physically remove the site, and indirect impacts due to vandalism in sites that are accessible to the public. Paleontological resources would also be directly impacted by the implementation of the Land Use and Circulation Elements. Direct impacts include demolition and removal of sites by earth moving activities, while indirect impacts would include collection of artifacts and vandalism. Impacts to historical resources would result from increases in development density under the proposed General Plan, which would encourage redevelopment that would result in the loss of historical structures. The City would continue to review development plans on a case-by-case basis, and would require that special studies/surveys be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity maps. When resources are identified, appropriate testing and preservation, mitigation, or salvage would be required. Overall, impacts on paleontological, archaeological, and historical resources from development accommodated by the General Plan are considered potentially significant. The degree of significance would depend upon the location of the proposed development and its proximity to a cultural resource. When viewed in conjunction with other developments planned for the City, the impacts to cultural resources in the project area could be considered an adverse cumulative
effect. However, the General Plan's goals, policies, and programs would serve as mitigation for the environmental impacts of development under the General Plan.

For each development project, impacts to cultural resources would be mitigated through compliance with the City’s General Plan Policies, GPEIR Mitigation Measures, the CEQA process, and where appropriate, site-specific mitigation. Therefore, cumulative impacts to cultural resources would be mitigated on a project-by-project basis and in accordance with the City’s General Plan goals, policies, and programs.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies, and Project Mitigation Measures outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies, and Project Mitigation Measures Incorporated.

**5.10.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

Impacts related to cultural resources associated with project implementation are considered less than significant following adherence to the established regulatory framework, GPEIR Mitigation Measures and Policies, and recommended mitigation measures.
5.11 Police Protection
5.11 POLICE PROTECTION

5.11.1 INTRODUCTION

This section identifies existing law enforcement conditions within the proposed Expansion Area, analyzes potential police protection impacts associated with the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area, and recommends mitigation measures to avoid or lessen the significance of potential impacts. Information presented in this section was obtained from the Los Angeles County Sheriff’s Department.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with police protection as a result of full implementation of the Palmdale General Plan were evaluated in Section 4.2.10 (Public Services) of the General Plan EIR (GPEIR) (pages 4-150 through 4-153). The GPEIR concluded the demand for police protection would increase with the rate of development within the City. With implementation of General Plan policies and programs and mitigation measures, impacts would be reduced to a less than significant level.

5.11.2 EXISTING CONDITIONS

Existing police protection services are based on existing (2010) conditions within the City. Due to the distribution and non-contiguous nature of the proposed Expansion Area, this section addresses police protection services that occur Citywide and identifies special characteristics of the proposed Expansion Area.

POLICE PROTECTION SERVICES

The City of Palmdale contracts with the Los Angeles County Sheriff’s Department (LACSD) for police protection, crime prevention and traffic enforcement services. Department personnel provide law enforcement services from the Palmdale Sheriff’s Station located at 750 East Avenue Q, in the City of Palmdale. The Lancaster Station, located at 501 West Lancaster Boulevard in Lancaster, also provides services to the City of Palmdale, as needed. The LACSD provides the Palmdale Station with search and rescue services throughout the Antelope Valley, if needed.
The Palmdale Sheriff’s Station is a full service station, housing the City’s jail facilities, detective bureau, traffic services, and patrol services. The station opened in July 2006 and has adequate facilities and resources to meet the City’s needs.\(^1\) There are currently no established target staffing levels. Palmdale Sheriff’s Station has established target response times of five minutes for emergency calls, 20 minutes for priority calls, and 60 minutes for routine calls. The LACSD does not assess fees for new developments in the City.

### 5.11.3 REGULATORY FRAMEWORK

#### CALIFORNIA PENAL CODE

The California Penal Code establishes the basis for the application of criminal law in California.

#### CITY OF PALMDALE GENERAL PLAN

##### Public Services Element

The Public Services Element provides a plan to ensure that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element. To this end, Objective PS5.2 of the Public Services Element is to support the provision of adequate law enforcement services to meet the needs of City residents. The Public Services Element Policies that are relevant to the proposed project are outlined in the *Impacts and Mitigation Measures* Section below.

##### Safety Element

The General Plan Safety Element addresses natural and man-made hazards present in the City of Palmdale. The Safety Element is intended to guide development by reducing the levels of risk posed by these hazards within the City and its Planning Area. Specifically, the Safety Element identifies present conditions and public concerns, sets policies and standards for improved public safety, and plans for protection from potential disasters. It seeks to minimize physical harm, as well as economic and social disruptions. To this end, Objective S2.5 of the Safety Element is to minimize potential hazards related to crime through the development review process and through on-going public education programs. The Safety Element Policies that are relevant to the proposed project are outlined in the *Impacts and Mitigation Measures* Section below.

### 5.11.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study includes questions relating to police protection. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this

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\(^1\) Don P. Ford, A/Captain, Palmdale Station, Los Angeles County Sheriff’s Department, October 20, 2010.
section. Accordingly, a project may create a significant environmental impact if it causes the following to occur:

- Are there any aspects of the project that would create a significant impact to police protection.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.11.5 IMPACTS AND MITIGATION MEASURES

POLICE PROTECTION SERVICES

Threshold: Are there any aspects of the project that would create a significant impact to police protection?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

As stated, the LACSD provides police protection, crime prevention, and traffic enforcement services to the City of Palmdale. It is anticipated that new development within the proposed Expansion Area would result in increased demand for police protection services. After review of the proposed project, the LACSD does not anticipate any significant impacts on service calls, additions to personnel, or patrol cars. The project would not require any expansion of LACSD facilities or additional stations within the City.²

The City supports the provision of adequate law enforcement services (Objective PS5.2) through coordination with the Sheriff’s Department (Policy PS5.2.3) to ensure adequate staffing and service levels are provided to meet the needs of the community. Future development projects would be reviewed on a case by case basis to adequately identify potential impacts to police protection services and facilities. Further, the LACSD annually reviews the need for adjustments to service levels based on population increases, response times, crime trends, and traffic problems. The LACSD would make recommendations to the City for any necessary adjustments in service levels to ensure adequate police protection services are provided.

² Ibid.
It is also the City’s intent to minimize potential hazards related to crime through the development review process (Objective S2.5). The City promotes site design review to ensure that sites are designed to maximize safety and the security of users (Policy S2.5.1). Accordingly, all future development within the project area would be subject to compliance with the GPEIR Policies, which are intended to lessen potential impacts to police protection services. The LACSD would review site-specific development projects to ensure that crime prevention and safety considerations are taken into consideration in the site design of a project. Additionally, any transportation or infrastructure improvements involving the closure or modification of roadways would be coordinated with the LACSD to ensure adequate emergency access and evacuation routes are available.

Following compliance with the City’s development review process and GPEIR recommended mitigation and Policies, project implementation would result in less than significant impacts involving police protection services.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy PS5.2.3: Monitor staffing and service levels for law enforcement services and work with the Sheriff’s Department to ensure adequate staffing to meet service level needs of the community.

Policy S2.5.1: Through the development review process, ensure that sites are designed so as to maximize safety and security of users. Site design should consider the following factors, at a minimum:

a. Visibility of user areas from the public right of way and/or adjacent properties;
b. Lighting of user areas;
c. Accessibility for patrol and emergency vehicles;
d. Legible street numbers from both front and rear, where appropriate;
e. Use of open fencing where needed for site visibility;
f. Avoidance of dead ends or tunnel-like passageways in the pedestrian circulation system;
g. Visibility of parking areas by site users and/or the public right-of-way;
h. Use and maintenance of appropriate landscaping to maintain visibility and accessibility;
i. Security fencing to prevent trespass;
j. Prohibition of exterior ladders to permit roof access by trespassers;
k. Siting of laundry rooms, play areas and other accessory uses for maximum visibility and security; and
l. Designation of “defensible space” within project areas for site users.

Policy S2.5.2: Require all commercial and industrial projects to provide adequate lighting for buildings and parking areas, and visibility for patrol vehicles, to assist in law enforcement surveillance.
Project Mitigation Measures: No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.11.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT POLICE PROTECTION SERVICES.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to police protection is presented on page 8-11 of the GPEIR. The analysis concluded that cumulative impacts to police protection services associated with development buildout under the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

Future development within the proposed Expansion Area in accordance with the General Plan and related cumulative projects would increase resident and daytime populations within the City. The increase in population and density would increase the demand on police protection services to the area. Increased development within the proposed Expansion Area would be reviewed to ensure that adequate police protection services are available to serve the associated population growth. Additionally, individual projects would be required to comply with the City’s standards/codes and/or conditions of approval set forth by the Los Angeles County Sheriff’s Department and any recommended mitigation measure applicable to the project.

Buildout of the proposed Expansion Area was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the proposed project’s impact upon police protection services is based on development permitted by the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to police protection services than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to police protection services. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts involving police protection services would be less than significant.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.
Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.11.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts related to police protection resulting from implementation of the proposed project would be less than significant following compliance with the GPEIR recommended mitigation and Policies, and the City’s development review process.
5.12 School Facilities
5.12 SCHOOL FACILITIES

5.12.1 INTRODUCTION

This section provides existing conditions and background information necessary to determine potential impacts resulting from implementation of the proposed Expansion Area Amendment. Mitigation measures are recommended to avoid or reduce potential impacts to less than significant levels. This section is based on information from the Palmdale School District and Antelope Valley Union High School District.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with school facilities as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.10 (Public Services) (pages 4-154 through 4-158). The GPEIR concluded the proposed Land Use Plan would increase the City’s residential development capacity resulting in a larger student population and a need for more schools.1 The GPEIR also concluded the Land use Plan would result in an elementary/intermediate school population of 50,847 students and a high school population of 27,841 students. Implementation of City programs would reduce the impact on schools to a level of insignificance, although, existing deficiencies would remain until new programs and facilities are implemented.

5.12.2 EXISTING CONDITIONS

FACILITIES

The Expansion Area is within the jurisdiction of two school districts: the Palmdale School District (PSD); and the Antelope Valley Union High School District (AVUHSD). The PSD offers Kindergarten (K) through 8th grade education, while the AVUHSD offers 9th through 12th grade education.

The PSD encompasses over 75 square miles (generally from 25th Street West to 80th Street East and Avenue U to Avenue M), making it the fourth largest elementary school district in the

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1 City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-210.
State. A total of 18 elementary and five middle schools comprise the PSD. The following PSD elementary school boundaries are located within the Expansion Area:  

- Desert Rose Elementary School;
- Summerwind Elementary School;
- Tamarisk Elementary School;
- Tumbleweed Elementary School;
- Wildflower Elementary School; and
- Yucca Elementary School.

Additionally, the Cactus, Juniper, and Mesa intermediate school boundaries are located within the Expansion Area.

The AVUHSD facilities that serve the Expansion Area are Palmdale, Highland, and Knight High Schools. Highland and Knight High School are at or over their enrollment capacities (3,800 and 3,400 students, respectively), while Palmdale High School is slightly under (at approximately 90 percent) its 3,400 student capacity. The AVUHSD is currently assessing Level II and III Developer Fees at $1.60 per square foot for residential development.

**STUDENT POPULATION**

Table 5.12-1, *Expansion Area Existing Student Population*, provides an estimate of the Expansion Area’s existing student population. As indicated in Table 5.12-1, the Expansion Area’s existing student population is approximately 4,406 students, including 2,697 elementary, 721 intermediate, and 988 high school.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Student Generation Rate (Student/DU)</th>
<th>Dwelling Units (DU)</th>
<th>Existing Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>0.5564(^1)</td>
<td>4,847</td>
<td>2,697</td>
</tr>
<tr>
<td><strong>Intermediate School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>0.1488(^1)</td>
<td>4,847</td>
<td>721</td>
</tr>
<tr>
<td><strong>High School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>0.246(^2)</td>
<td>3,419</td>
<td>842</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>0.102(^2)</td>
<td>1,428</td>
<td>146</td>
</tr>
<tr>
<td><strong>Subtotal High</strong></td>
<td></td>
<td>4,847</td>
<td>988</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>4,406</td>
</tr>
</tbody>
</table>

2. Written Correspondence: Mr. Jeff Foster, Deputy Superintendent, Antelope Valley Union High School District, November 9, 2010.
5.12.3  REGULATORY FRAMEWORK

California’s system for financing school facilities can be generally described as a cooperative effort between the state and local school districts. The state provides districts with financial support for new school construction and modernization projects through the School Facility Program (SFP). It funds the SFP through statewide, voter-approved bonds. Local school districts finance their share of school construction and modernization project costs primarily with revenue raised through local General Obligation (GO) bond elections.

ASSEMBLY BILL 2926

The State of California has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill 2926 (AB 2926) in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees were also referenced in the 1987 Leroy Greene Lease-Purchase Act, which required school districts to contribute a matching share of project costs for construction, modernization, or reconstruction.

SENATE BILL 50 AND PROPOSITION 1A

Senate Bill 50 (SB 50) and Proposition 1A, both of which passed in 1998, provided a comprehensive school facilities financing and reform program, in part by authorizing a $9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases. Specifically, the bond funds are to provide $2.9 billion for new construction and $2.1 billion for reconstruction/modernization needs. The provisions of SB 50 prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate, and reinstates the school facility fee cap for legislative actions (e.g., General Plan amendments, specific plan adoption, zoning plan amendments) as was allowed under the Mira, Hart and Murrieta court cases. According to Government Code Section 65996, the development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.” These provisions remain in place as long as subsequent State bonds are approved and available.

SB 50 establishes three levels of Developer Fees that may be imposed upon new development by the governing board of a school district depending upon certain conditions within a district. Level One Fees are the statutory fees, which can be adjusted for inflation every two years. Level Two Fees allow school districts to impose fees beyond the base statutory cap, under specific circumstances. Level Three Fees come into effect if the State runs out of bond funds after 2006, which would allow school districts to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school monies. The school fee amounts provided for in Government Code Sections 65995, 65995.5 and 65995.7 would constitute full and complete mitigation for school facilities.

In order to accommodate students from new development projects, school districts may alternatively finance new schools through special school construction funding resolutions and/or agreements between developers, the affected school districts, and occasionally, other local
governmental agencies. These special resolutions and agreements often allow school districts to realize school mitigation funds in excess of the developer fees allowed under SB 50.

The passage of Proposition 1A in 1998 created the School Facilities Program (SFP), in order to streamline the process districts go through to obtain state funding. Pursuant to the SFP, funding for new construction and modernization is provided by the State in the form of per-pupil grants. Generally, projects also require local matching funds. The SFP also implemented numerous reforms intended to streamline the application process, simplify the state facilities program, and create a more transparent and equitable funding mechanism.

5.12.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to schools. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- In what elementary and high school attendance area is the project;
- Approximately how many students will the project generate; and/or
- Generate a number of students that would significantly contribute to the affected schools exceeding their designed capacity.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.12.5 IMPACTS AND MITIGATION MEASURES

Thresholds:
In what elementary and high school attendance area is the project?

Approximately how many students will the project generate?

Would the students generated by the project significantly contribute to the affected schools exceeding their designed capacity?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted
by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units.

Project implementation would facilitate the installation and construction of public and community facilities necessary to carry out the Redevelopment Plan, including school facilities, among others. Additionally, buildout of the proposed Expansion Area in accordance with the General Plan would increase the area’s existing housing stock by 1,732 dwelling units, thereby, increasing the student population. Table 5.12-2, Expansion Area Buildout Student Population, provides an estimate of the Expansion Area’s student population at buildout. As indicated in Table 5.12-2, the Expansion Area’s student population at buildout would be approximately 5,853 students, including 3,661 elementary, 979 intermediate, and 1,212 high school. This represents an increase of approximately 33 percent (1,447 students) over the area’s existing student population.

Project implementation would increase the Expansion Area’s housing stock, which would increase the student population, potentially contributing to the PSD and AVUHSD schools exceeding their designed capacities. The degree of impacts to schools would be dependant upon the size and location of the residential development and the existing condition of the school facilities that would serve the development. Due to the conceptual nature of the future residential development, proposals would require individual assessments of potential impacts to public services, including demands on school facilities and services. As part of the development review process, school districts assess Developer Fees against developments, in order to mitigate impacts resulting from the increased demand for school-related facilities and services. Therefore, impacts to school facilities would be mitigated to less than significant through payment of Developer Fees on a project specific basis. If necessary, additional mitigation would be required to reduce potential impacts to a less than significant level at the time of project specific approvals.

Table 5.12-2
Expansion Area Buildout Student Population

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Student Generation Rate (Student/DU)</th>
<th>Dwelling Units (DU)</th>
<th>Buildout Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>0.5564¹</td>
<td>6,579</td>
<td>3,661</td>
</tr>
<tr>
<td>Intermediate School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>0.1488¹</td>
<td>6,579</td>
<td>979</td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>0.246²</td>
<td>3,760</td>
<td>925</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>0.102²</td>
<td>2,819</td>
<td>288</td>
</tr>
<tr>
<td>Subtotal High</td>
<td></td>
<td>6,579</td>
<td>1,212</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>5,853</td>
</tr>
<tr>
<td>Total Existing</td>
<td></td>
<td></td>
<td>4,406</td>
</tr>
<tr>
<td>Total Over Existing</td>
<td></td>
<td></td>
<td>1,447</td>
</tr>
<tr>
<td>Total % Over Existing</td>
<td></td>
<td></td>
<td>33%</td>
</tr>
</tbody>
</table>

¹. Palmdale Transit Village Specific Plan Final EIR, June 2007.
². Written Correspondence: Mr. Jeff Foster, Deputy Superintendent, Antelope Valley Union High School District, November 9, 2010.
Additionally, it is the City’s goal to plan for and reserve land to accommodate uses needed for public benefit, including open space, recreation, public improvements, schools, and community facilities (Goal L6). Accordingly, it is the City’s objective to ensure that adequate land is available for uses serving or providing benefit to the general public (Objective L6.1). It is also the City’s goal to ensure that adequate public services and facilities are available to support development in an efficient and orderly manner (Goal PS1). To this end, the City would coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding (Objective PS1.5). Finally, it is the City’s goal to support the provision of local educational opportunities for community residents (Goal PS4). To this end, the City would cooperate with school districts serving the City of Palmdale to develop and implement strategies for obtaining school sites and construction financing (Objective PS4.1). All new development in the Expansion Area would be subject to compliance with the General Plan Policies outlined below, in furtherance of these City Goals and Objectives.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy L6.1.1: On the Land Use Map, designate land for public uses to meet community needs for schools, parks, community facilities, open space, utilities, and infrastructure. The following land use designations have been established on the land use map to meet these needs.

1. Open Space: The Open Space (OS) designation is intended to identify and reserve land for both natural and active open space uses, including City parks. The designation identifies existing and acquired but not yet built park sites within the community, as well as lands dedicated to the City for open space purposes. The designation is appropriate to protect sites with physical limitations such as flood plains, very steep terrain (slopes steeper than 50 percent), or significant natural resources. Typical uses permitted within the open space designation include recreational uses, horticulture, agriculture, animal grazing or similar uses.

2. Public Facilities: The Public Facilities (PF) designation identifies land which is or will be utilized for various types of public facilities, including but not limited to schools, parks, libraries, hospitals, public safety and governmental facilities, sewer and water treatment plants, and landfills.

Existing or acquired public facility sites are designated PF on the land use map; however, public facilities may be allowed in other land use designations as established by the underlying zoning. Within the PF designation, uses are specifically identified by use type on the land use map. The maximum floor area designation within this designation is 1.0.
Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Policy PS4.1.1: Coordinate with school districts to identify appropriate sites and consider school district master plans in evaluating development proposals.

Policy PS4.1.2: Offer administrative, planning and engineering assistance to the school districts in reviewing school site plans with respect to City plans for drainage, traffic, adjacent land uses and other considerations.

Policy PS4.1.3: In review of development adjacent to school sites, ensure that street and lot placement, grades, walls and other design considerations are incorporated into the design so as to minimize potential conflicts with school uses.

Policy PS4.1.4: Condition approvals of development projects to meet the funding requirements of applicable school districts to the extent permitted by law.

Policy PS4.1.5: Support joint use of school and City park facilities, where appropriate, to meet the needs of the local community, through site location and planning, and assistance with construction funds.

Policy PS4.1.6: Provide demographic and growth data to the districts so as to assist them in development of facility master plans.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.12.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively contribute to the affected schools exceeding their designed capacities.

Impact Analysis: The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to schools is presented in GPEIR Section 8.8 (Cumulative Impacts) on pages 8-11 and 8-12. The analysis concluded that cumulative student generation would be 157,051 elementary students and 80,943 high school students. Impacts of the proposed plan and related projects to schools services in the region would be significant in...
the short term, but would be reduced to less than significant levels, as new facilities are developed.

The GPEIR concluded the proposed Land Use Plan would increase the City’s residential development capacity resulting in a larger student population and a need for more schools. The GPEIR also concluded the Land Use Plan would result in an elementary/intermediate school population of 50,847 students and a high school population of 27,841 students. Implementation of City programs would reduce the impact on schools to a level of insignificance. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional residential development within the area was assumed consistent with the Land Use Plan, and the project’s impact upon schools is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the City buildout analysis presented in the GPEIR and would result in no greater impacts to schools than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to schools. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts to schools within the City would be less than significant.

All future development within the City would require individual assessments of potential impacts to school facilities and services. Cumulative impacts to school facilities would be mitigated to less than significant through payment of Developer Fees on a project specific basis. Additionally, all new development in the City would be subject to compliance with the General Plan Policies outlined above, in furtherance of the City’s Goals and Objectives.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**5.12.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

No significant unavoidable impacts associated with school facilities would occur as a result of project implementation.
5.13 Parks and Recreational Facilities
5.13 PARKS AND RECREATIONAL FACILITIES

5.13.1 INTRODUCTION

The section identifies potential impacts to parks and recreation facilities that could result from implementation of the proposed project. Information in this section is derived from the City of Palmdale Parks and Recreation Department.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with parks and recreational facilities as a result of full implementation of the Palmdale General Plan were evaluated in Section 4.2.10 (Public Services) of the GPEIR (pages 4-146 through 4-170). The GPEIR concluded that buildout of the General Plan would increase the demand on parks and recreation facilities; however, General Plan policies and programs would reduce impacts to parks and recreation resources to a less than significant level.

5.13.2 EXISTING CONDITIONS

Existing parks and recreational facilities and demand conditions are based on existing (2010) conditions within the proposed Expansion Area.

RECREATION PROGRAMS

The City of Palmdale offers a variety of recreation programs for all ages. Programs include sports, aquatics, visual and performing arts, early childhood classes, after school fun centers/day camps, and senior activities. Program offerings are year-round and seasonal.

PARKS AND RECREATION FACILITIES

Table 5.13-1, Parks and Recreation Facilities, identifies the parks and recreation facilities that are located within or near the proposed Expansion Area.
### Table 5.13-1
Parks and Recreation Facilities

<table>
<thead>
<tr>
<th>Park/Facility</th>
<th>Location</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian Little League</td>
<td>Southeast corner of Division Street and East Avenue P-8</td>
<td>5 acres</td>
</tr>
<tr>
<td>Desert Sands Park</td>
<td>39117 3rd Street East</td>
<td>20 acres</td>
</tr>
<tr>
<td>Dr. Robert St. Claire Parkway</td>
<td>On Sierra Highway between Avenue Q and Avenue R</td>
<td>8 acres</td>
</tr>
<tr>
<td>Joe Davies Heritage Airpark</td>
<td>2001 East Avenue P</td>
<td>24.6 acres</td>
</tr>
<tr>
<td>Larry Chimbole Cultural Center</td>
<td>38350 Sierra Highway</td>
<td>21,358 s.f.</td>
</tr>
<tr>
<td>Legacy Commons Center for Active Seniors</td>
<td>930 East Avenue Q-9</td>
<td>8,500 s.f.</td>
</tr>
<tr>
<td>Melville J. Coursen Park and Pool</td>
<td>38226 10th Street East</td>
<td>7.5 acres 6,000 s.f.</td>
</tr>
<tr>
<td>Palmdale Parks and Recreation Office</td>
<td>38260 10th Street East</td>
<td>7,700 s.f.</td>
</tr>
<tr>
<td>Palmdale City Library</td>
<td>700 East Palmdale Boulevard</td>
<td>12,790 s.f.</td>
</tr>
<tr>
<td>Palmdale Playhouse</td>
<td>38334 10th Street East</td>
<td>12,700 s.f.</td>
</tr>
<tr>
<td>Poncitlan Square</td>
<td>38315 9th Street East</td>
<td>2 acres</td>
</tr>
<tr>
<td>Richard B. Hammack Community Activity Center and Roller Hockey Rinks</td>
<td>815 East Avenue Q-6</td>
<td>30,000 s.f. 52,000 s.f.</td>
</tr>
<tr>
<td>William J. McAdam Park and Pool</td>
<td>38115 30th Street East</td>
<td>20 acres 4,160 s.f.</td>
</tr>
</tbody>
</table>

s.f. = square feet.
Source: Tonya Madison, Secretary, Palmdale Parks and Recreation Department, City of Palmdale, October 20, 2010.

### PARKS AND RECREATION DEMAND

The City has an established parkland-to-population requirement of 5.0 acres of parkland per 1,000 persons. The City’s current (2010) population is 152,622 persons. In order to meet the City’s parkland-to-population ratio, the City would need 763 acres of parkland. The City currently maintains 332.8 acres of developed parkland with an additional 503.1 acres identified for future park development, including neighborhood parks, community parks, and special use parks.¹

There are currently 4,847 residential units within the proposed Expansion Area, resulting in a population of 17,163 persons. Based upon the City’s parkland-to-population requirement, the current population residing within the proposed Expansion Area requires 85.8 acres of parkland.

### TRAILS AND BICYCLE PATHS

GPEIR Exhibit 3-32 (Existing and Proposed Bikeways) identifies existing and planned bikeways and trails within Palmdale, including the project area. As indicated on GPEIR Exhibit 3-32, there is an existing bikeway along Sierra Highway within the project area. Additionally, there are several adopted master plan routes within or adjacent to the project area, including Avenue M,

¹ Tonya Madison, Secretary, City of Palmdale Parks and Recreation Department, December 2, 2010.
Avenue P (east of Sierra Highway), Avenue Q, Avenue P-8 (west of Sierra Highway), Avenue R, and 10th and 30th Streets (between Avenue Q and Avenue R).

5.13.3 REGULATORY FRAMEWORK

CITY OF PALMDALE GENERAL PLAN

Parks, Recreation, and Trails Element

The Parks, Recreation, and Trails Element of the Palmdale General Plan guides future development of parks, recreational facilities, multi-use trails, bikeways, and open space areas to serve the recreation needs of existing and future residents. The goals, objectives, and policies within the Element are designed to establish standards identifying the need for parkland and programs, as well as for the future provision of facilities. The City has identified the following goals:

Goal PRT1: Provide adequate parks to meet the needs of existing and future residents.

Goal PRT2: Provide a broad range of recreational programs, including programs for all age and activity levels, educational programs and cultural events, to enrich the lives of Palmdale residents.

Goal PRT3: Provide a network of open space areas to provide for passive recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the City.

Goal PRT4: Develop a system of multi-use trails which provide connections to the County trails system and the City of Lancaster trails system.

Goal PRT5: Promote bicycling as an important mode of transportation and recreation in the City of Palmdale.

To this end, the City has established several objectives and policies to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element.

Objective PRT1.1 of the Parks, Recreation, and Trails Element is to adopt and implement a standard of 5 acres of parkland per 1,000 population for the City (Policy PS5.4.1).

Objective PRT1.2 of the Parks, Recreation, and Trails Element is to explore various means of acquiring parkland and seek creative and flexible techniques to accomplish City park goals, including but not limited to fee vouchers in exchange for parkland (Policy PS5.4.6).

Objective PRT4.1: Provide multi-use trails, for use by pedestrians, bicyclists and equestrians, connecting to existing or currently planned multi-use trails.
Objective PRT4.2: Explore various means of acquiring trail easements or rights-of-way and pursue all available funding sources to provide trail acquisition and construction.

Objective PRT5.1: Encourage bicycle use by developing a comprehensive bikeway network for the City.

Objective PRT5.2: Provide bikeways which suit the access needs of all bicyclists in the City of Palmdale.

The Parks, Recreation, and Trails Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

Public Services Element

The Public Services Element provides a plan to ensure that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element. To this end, Objective PS5.4 of the Public Services Element is to provide adequate park and recreation facilities to meet the needs of existing and future residents.

The Public Services Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

CITY OF PALMDALE MUNICIPAL CODE

Chapter 3.34, Parkland Dedication

Each person who constructs any dwelling unit or units containing bedrooms in the City shall pay a fee or dedicate land in lieu of the fee. Additionally, each person who constructs a bedroom unit within any existing dwelling unit in the City shall pay a fee or dedicate land in lieu of such fee. Where the acceptance of land in lieu of fees will better serve the purpose of the citizens of Palmdale, such land may be accepted based upon findings by the Planning Commission. All fees collected pursuant to Chapter 3.34 shall be deposited in the “City of Palmdale parks development reserve fund.” All such fees shall be used solely for the purpose of providing park and recreational facilities for the benefit of the City.

Chapter 16.110, Dedications and Improvements

The subdivider is required to construct all required improvements, both on-site and off-site, in accordance with the standards approved by City Council ordinance and applicable City standards as provided by this title. Additionally, the applicant is required to pay all impact fees, pursuant to the applicable impact fee ordinances, in the amount that is in effect at the time such fees are due.
PMC Section 16.110.070.A, Dedication for Bicycle Paths. Pursuant to Government Code Section 66475.1, the subdivider of any map which contains 200 or more parcels shall dedicate such additional land as may be necessary to construct any bicycle paths, as shown in the City’s Parks, Recreation, and Trails Element or as required by the Planning Commission as a condition of approval of the tentative map, which are within or adjacent to the unit of land to be subdivided.

5.13.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to parks and recreation. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Will the proposed project result in an impact on the quality or quantity of existing parks or recreational facilities, including trails or bicycle paths.

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.13.5 IMPACTS AND MITIGATION MEASURES

PARKS AND RECREATION FACILITIES

**Threshold:** Will the proposed project result in an impact on the quality or quantity of existing parks or recreational facilities, including trails or bicycle paths?

**Impact Analysis:** The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.
The development of an additional 1,732 dwellings would result in a potential population growth of approximately 6,133 persons. Based upon the City’s parkland to population requirement of 5.0 acres of parkland per 1,000 persons, future development within the proposed Expansion Area would result in a need for approximately 30.7 acres of additional parkland. As stated, based on the City’s current population, there is an existing need for 763 acres of parkland. The City currently maintains 332.8 acres of developed parkland, resulting in a deficiency of approximately 430 acres. Development within the proposed Expansion Area in accordance with the General Plan would further contribute to this deficiency. However, the City has 503.1 acres identified for future park development, including neighborhood parks, community parks, and special use parks, which would provide the necessary parkland to serve the existing and future demand associated with the proposed project.

Development within the proposed Expansion Area in accordance with the General Plan would occur over several years, based on market demand; thus, any increase in demand for parks and recreation facilities would occur gradually as additional development is added to the area. Future development within the project area would be required to pay the parkland dedication fee or dedicate land in lieu of such fee in accordance with Chapter 3.34, Parkland Dedication, of the City’s Municipal Code to compensate for the impacts of the proposed project on park and recreational facilities. Payment of the applicable fees and provision of on-site amenities in future developments would reduce potential impacts to parks and recreational facilities to a less than significant level. Further, according to the City, it is anticipated that existing facilities within the project area would be available to adequately serve future residential development anticipated within the proposed Expansion Area.

It is the City’s intent to ensure that adequate facilities are available to serve existing and future development within the City, consistent with the Land Use Plan. The City has established specific standards to ensure the provision of adequate active and passive parkland and open space to serve the community (Policy PRT1.1.1) and to ensure that parks sites are provided throughout the City to maximize access (PRT1.1.2). Additionally the City has identified the opportunity to develop and expand multi-use trails within the City to provide for additional recreational and non-motorized transportation opportunities (Policy PRT4.1.1). Accordingly, all future development within the project area would be subject to compliance with the GPEIR Policies and City’s Municipal Code, which are intended to lessen potential impacts to parks and recreational facilities.

Refer to Section 5.2, Transportation and Circulation, of this EIR for a detailed discussion of potential impacts to existing and planned bicycle facilities.

Following compliance with the City’s development review process and GPEIR recommended mitigation and Policies, project implementation would result in less than significant impacts involving parks and recreational facilities, including trails and bikeways.

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2 This population projection is based on 100 percent occupancy, 1,732 new DU, and 3.541 persons per household.

3 Tonya Madison, Secretary, City of Palmdale Parks and Recreation Department, December 2, 2010.
Mitigation Programs:

GPEIR Mitigation Measures and Policies:

Policy PRT1.1.1: Of the 5 acres/1,000 population, active park land must comprise no less than 3 acres per 1,000 population; open space may comprise 1 acre per 1,000 population; and the remainder can be composed of other public recreational facilities including Desert Aire Golf Course, portions of school sites which provide recreation facilities or play fields accessible to the public, or other comparable facilities. Of the 3 acre/1,000 population standard for active park land, develop 2 acres as community or specialty parks and 1 acre as neighborhood parks.

Policy PRT1.1.2: Ensure that park sites are located equitably throughout the City to maximize access to parks for all residents.

Policy PRT1.1.3: Provide a variety of parks throughout the City, including community and neighborhood parks, to meet the needs of all residents.

Policy PRT1.2.1: Collect park fees and review this fee annually to provide financing for improvement of parkland in Palmdale (Policy PS5.4.4).

Policy PRT1.2.4: Continue to use the City’s Capital Improvement Program as the mechanism for short-term planning for acquisition of park land and construction of park facilities.

Policy PRT4.1.1: Adopt the Multi-use Trails Plan, shown in Exhibit PRT-2, which shall delineate the multi-use trails system for the City of Palmdale. The trails plan shall include all trails shown within the Planning Area, including those trails designated by Los Angeles County. Examine the feasibility of extending the multi-use trail system along the Southern Pacific Railroad, the Palmdale Ditch, and Amargosa and Ana Verde Creeks.

Policy PRT4.2.1: Require dedication of trail easements and/or construction of trail improvements as a condition of approval of development, to the extent allowed by law.

Policy PRT4.2.4: Use the City's Capital Improvement Program to provide short-term planning for acquisition and construction of trail segments.

Policy PRT5.1.1: Establish Class I, II and III bikeways throughout the planning area. Backbone Class I and II bikeways are shown on Exhibit PRT-2.

Policy PRT5.1.3: Reserve right-of-way, require dedication when appropriate, and ensure construction of bikeways through the development review process and Capital Improvement Program.
Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):

1. Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends.

2. Subdivision design should consider bicycle and pedestrian access to nonresidential uses. These areas are best accessed through perimeter (single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.

Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.

Policy PS5.4.1: Adopt and implement a standard of 5-acres of parkland per 1,000 population for the City.

Policy PS5.4.2: Implement the Parks, Recreation and Trails Element as a master plan for park acquisition and improvement.

Policy PS5.4.4: Refer to Policy PRT1.2.1, above.

Policy PS5.4.6: Explore various means of acquiring parkland and seek creative and flexible techniques to accomplish City park goals, including but not limited to fee vouchers in exchange for parkland.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.13.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT PARKS AND RECREATION FACILITIES.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to parks and recreational facilities is presented on page 8-12 of the GPEIR. The analysis concluded that cumulative impacts associated with increased demand to parks and recreation facilities associated with development buildout under
the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

Development associated with implementation of the proposed project and related cumulative projects would increase demand on parks and recreation facilities. However, future development within the proposed Expansion Area would pay the parkland dedication fee or dedicate land in lieu of such fee in accordance with Chapter 3.34, Parkland Dedication, of the City’s Municipal Code to compensate for the impacts of the proposed project on park and recreational facilities. Such fees can be used by the City to acquire and develop additional parkland or to augment recreational facilities in existing public parks and recreational facilities as necessary to mitigate the potential of the project to substantially deteriorate existing facilities. Additionally, it is anticipated that some future site-specific development projects would provide on-site park and open space facilities to serve the proposed development. The inclusion of recreational amenities into the development of related cumulative projects would be assessed on a project-by-project basis. However, all applicable projects would be required to pay park acquisition and development impact fees at the same proportionate rates as the proposed project. Thus, cumulative impacts related to the demand for parks and recreation services would be less than significant.

The GPEIR concluded the proposed Land Use Plan would increase the City’s population, resulting in an increased demand on parks and recreation facilities. Implementation of General Plan policies and programs would reduce the impact to a less than significant level. Buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s demand for parks and recreational facilities is based upon population growth associated with development permitted by the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to parks and recreational facilities than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to parks and recreational facilities. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts to parks and recreational facilities within the City would be less than significant.

**Mitigation Measures:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
5.13.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Potential impacts to parks and recreational facilities resulting from implementation of the proposed project would be less than significant following compliance with the GPEIR recommended mitigation and Policies. As such, no significant unavoidable impacts to parks and recreation facilities would result from implementation of the proposed Expansion Area Amendment.
5.14 Library Services
5.14 LIBRARY SERVICES

5.14.1 INTRODUCTION

The section identifies potential impacts to library facilities that could result from implementation of the proposed project. Information in this section is derived from the following sources:

- City of Palmdale General Plan Public Services Element (City of Palmdale, January 25, 1993);
- Final Program EIR for the City of Palmdale General Plan (GPEIR) (City of Palmdale, February 1, 1993); and

The GPEIR provides baseline existing conditions based on the data available at the time of document preparation. The SOC Report evaluates the changes that have occurred in the City from the time the GPEIR was prepared and is incorporated as appropriate.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with library services as a result of full implementation of the Palmdale General Plan were evaluated in Section 4.2.10 (Public Services) of the General Plan EIR (GPEIR) (pages 4-163 through 4-168). The GPEIR concluded the anticipated increase in population resulting from development of the Land Use Plan would create an increased demand for City library services. With implementation of General Plan policies and programs, impacts to library services would be reduced to less than significant.

5.14.2 EXISTING CONDITIONS

The City of Palmdale is served by the Palmdale City Library, located at 700 East Palmdale Boulevard. The Library is approximately 12,400 square feet. The Library provides materials in a variety of formats including books, magazines, CDs, DVDs, and audio books. Services provided at the Palmdale City Library include book-lending privileges, audiovisual materials, internet access, periodicals, Palmdale historical information, an adult literacy program, typewriters, microfiche, maps, and videos. As of 2004, the Library provides the following:

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1 Palmdale General Plan, Public Services Element, January 1993.
• 114 reader seats;
• 1,280 square feet (s.f.) of workroom space;
• 320 s.f. of storage space; and
• 115 parking spaces.

As of 2008, the Library maintains the following:

• 25.5 total full-time equivalent staff;
• 134,186 book volumes;
• 449 periodicals;
• 14 internet terminals; and
• Attendance of 312,108 persons.

In addition to the City library, there are county branch libraries located in Quartz Hill (42018 N. 50th Street West), Littlerock (35119 80th Street East), and Lancaster (601 W. Lancaster Boulevard). These three libraries are part of the county library system and have reciprocal agreements with the Palmdale Library. Los Angeles County residents have borrowing privileges with any of these libraries.

The Quartz Hill Library is a 3,500 square feet “store-front” building with a separate room for children's programs. The collection consists of 68,479 books, including large-print material, 5,220 audio recordings including compact discs and books-on-tape; telephone directories; 5,670 video recordings; auto manuals; pamphlets; 53 newspapers and magazines for adults and children; and English language learning materials. The Quartz Hill Library offers the use of one public access Internet workstation; online library catalogs that provide access to the entire County Library collection and to online reference databases; reference service; preschool story times; a Homework Center, children's reading incentive programs; and other special events for children such as stories, crafts, projects, special performers, school tours, and library introduction programs. The library serves seven public schools, three middle schools, and two high schools as well as several private schools and a two-year college. A coin-operated photocopier is available for the public.2

The Littlerock Library is 3,680 square feet with free parking and is located in the center of the business community off of California Highway 138. The current collection consists of over 73,500 items. There are over 61,000 books, 5,900 audio recordings, 6,100 video recordings, 60 magazines, two newspapers, and other special materials such as telephone directories and pamphlets. Services available to customers are general reference assistance, an online library catalog that provides access to the entire County Library collection and to online reference databases, public access Internet computers, and a Homework Center to support the education needs of students in the local schools.3

The Lancaster Library is 48,721 square feet and features the following major areas: an adult reading room; a separate uniquely designed children's area; a young adult area; a circulation desk with 10 check-out terminals; a meeting room with a capacity of 176; and free parking. The


current collection totals 365,989 items with 325,537 books; 15,154 audio recordings; 16,773 video recordings; federal and state publications; 280 magazine and newspaper subscriptions; and other special materials such as microforms, Sam’s Photofacts, pamphlets, topographic maps, and local history. Services available to customers are public access Internet computers, CD-ROM workstations (adult and children) and On-line Library Catalog. There is a Career Information Center; children's and adult programming; copiers; self check-out terminals; small group study/conference rooms; Federal and State depository collection, public meeting room (available on a rental basis); and Friends of the Library Rental Collection.4

Table 5.14-1, *Palmdale Existing Library Staff/Facility Needs*, identifies the current library needs for the City of Palmdale based on the library service standards identified in the Palmdale General Plan (Policy PS5.3.2).

<table>
<thead>
<tr>
<th>Library Resources</th>
<th>Standard</th>
<th>Existing Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>2.5 volumes/person</td>
<td>381,555</td>
</tr>
<tr>
<td>Periodicals</td>
<td>8.5 periodicals /1,000 persons</td>
<td>1,297</td>
</tr>
<tr>
<td>Staff</td>
<td>0.5/1,000 persons</td>
<td>76</td>
</tr>
<tr>
<td>Reader’s Seats</td>
<td>5.0 reader seats/1,000 persons</td>
<td>763</td>
</tr>
<tr>
<td>Library Size</td>
<td>0.80 s.f./person</td>
<td>122,098</td>
</tr>
<tr>
<td>s.f. = square feet.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


As indicated in Table 5.14-1, the resources available through the Palmdale City Library are not adequate to meet the current population.

### 5.14.3 REGULATORY FRAMEWORK

**CITY OF PALMDALE GENERAL PLAN**

**Public Services Element**

The Public Services Element provides a plan to ensure that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element. To this end, Objective PS5.3 of the Public Services Element is to support the provision of adequate library services to meet the needs of existing and future residents. The Public Services Element Policies that are relevant to the proposed project are outlined in the *Impacts and Mitigation Measures* Section below.

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CITY OF PALMDALE MUNICIPAL CODE

Chapter 3.45, Public Facility Development Impact Fee Requirements

The City has established a public facility development impact fee to address the increased demand placed upon public facilities including library facilities. Every person who develops land is required to mitigate the impacts of that development on the City’s public facilities. The City therefore requires developers to pay a public facility development impact fee that is used to meet the demand for public facilities created by the development. The fee is limited to the cost of the facilities attributable to new development.

5.14.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study includes questions relating to library services. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes the following to occur:

- Will the project result in a significant impact to library services due to increased population?

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.14.5 IMPACTS AND MITIGATION MEASURES

LIBRARY SERVICES

<table>
<thead>
<tr>
<th>Threshold:</th>
<th>Will the project result in a significant impact to library services due to increased population?</th>
</tr>
</thead>
</table>

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.
The project anticipates the development of an additional 1,732 dwellings, resulting in a potential population growth of approximately 6,133 persons. It is anticipated that new development within the proposed Expansion Area would result in increased demand on library services. Table 5.14-2, Net Demand for Library Services, identifies the net increase in library service demand for the proposed project based on the library service demand factors provided in the GP/GPEIR.

### Table 5.14-2
Net Demand for Library Services

<table>
<thead>
<tr>
<th>Library Resources</th>
<th>Standard</th>
<th>Proposed Expansion Area Net Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Volumes</td>
<td>2.5 volumes/person</td>
<td>15,333</td>
</tr>
<tr>
<td>Periodicals</td>
<td>8.5 periodicals /1,000 persons</td>
<td>52</td>
</tr>
<tr>
<td>Staff</td>
<td>0.5/1,000 persons</td>
<td>3</td>
</tr>
<tr>
<td>Reader’s Seats</td>
<td>5.0 reader seats/1,000 persons</td>
<td>31</td>
</tr>
<tr>
<td>Library Size</td>
<td>0.80 s.f./person</td>
<td>4,906</td>
</tr>
</tbody>
</table>

Based upon a population growth of 6,133 persons within the proposed Expansion Area; refer to Section 5.1, Population, Employment, and Housing.

Development within the proposed Expansion Area in accordance with the General Plan would further contribute to the existing library facilities and services deficiency. However, the project’s anticipated population growth would occur over a 25-year period, allowing for development of necessary library services and facilities to accommodate the proposed growth. Additionally, Palmdale residents would have access to County branch libraries within the area. It is the City’s intent to ensure that adequate facilities are available to serve existing and future development within the City, consistent with the Land Use Plan. The City requires evaluation of the existing and future library system to provide sufficient facility space and materials to serve the population (Policy PS5.3.1). Additionally, the City’s Municipal Code requires payment of applicable fees for future development projects to mitigate the impact of the development on library facilities (Palmdale Municipal Code Chapter 3.45). All future development within the project area would be subject to compliance with the GPEIR Policies and City’s Municipal Code, which are intended to lessen potential impacts to library facilities. Therefore, although the proposed project would increase demand for library facilities and services in the City over existing conditions, this is considered a less than significant impact.

### Mitigation Programs:

GPEIR Mitigation Measures and Policies:

**Policy PS5.3.1:** Evaluate the existing and future library system in the Planning Area and plan for provision of sufficient facility space and materials to serve the population.

**Policy PS5.3.2:** Adopt and implement the following standards as a goal for library service to the community:

- 2.5 volumes per capita
- 8.5 periodicals per 1,000 population
City of Palmdale
Expansion Area Amendment to the Redevelopment Plans
for the Merged Project Area Environmental Impact Report

- 0.5 staff per 1,000 population
- 5.0 reader’s seats per 1,000 population
- 0.8 square feet of building space per capita

Policy PS5.3.3: Maintain reciprocal agreements with the county library system and other institutions to provide an additional resource in the City.

Policy PS5.3.4: Promote the construction of new libraries and the expansion of existing libraries as required to meet the needs of existing and future populations.

Policy PS5.3.5: Encourage the provision of library outreach services for residents who cannot visit library facilities.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.14.6 CUMULATIVE IMPACTS
AND MITIGATION MEASURES

BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT CITY OF PALMDALE LIBRARY FACILITIES AND SERVICES.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis is presented on page 8-12 of the GPEIR. The analysis concluded that cumulative impacts associated with increased demand to library facilities associated with development buildout under the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

Development associated with implementation of the proposed project and related cumulative projects would involve the development of new uses, potentially increasing the number of residents that utilize library facilities and services within the City. Future development within the Expansion Area would be subject to compliance with the GPEIR Policies and Mitigation Measures, as well as payment of applicable fees to mitigate the impact of the development on library facilities. In addition to the City Library, County library facilities are also available to help serve Palmdale residents and the surrounding communities. Therefore, less than significant cumulative library facility impacts are anticipated.

The GPEIR concluded the proposed Land Use Plan would increase the City’s population, resulting in an increased demand on library services. Implementation of General Plan policies and programs would reduce the impact to a less than significant level. Buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis,
since additional development within the area was assumed consistent with the Land Use Plan, and the project’s demand for library services is based upon population growth associated with development permitted by the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to library services than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project's long-term cumulative impact related to libraries. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts to library facilities and services within the City would be less than significant.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.14.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts to library facilities and services resulting from implementation of the proposed project would be less than significant following compliance with the GPEIR recommended mitigation and Policies, and the City’s Municipal Code.
5.15 Water
5.15 WATER

5.15.1 INTRODUCTION

This section identifies existing conditions within the City of Palmdale and provides an analysis of potential impacts to water supplies and distribution systems that could result from implementation of the proposed project. This section is based on the following resources:

- 2005 Integrated Regional Water Management Plan for the Antelope Valley (2005 IUWMP);
- Antelope Valley-East Kern Water Agency 2008 Urban Water Management Plan (AVEK 2008 UWMP); and

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with water supply as a result of full implementation of the Palmdale General Plan were evaluated in Section 4.2.11 (Public Utilities) of the GPEIR (pages 4-171 through 4-216). The GPEIR concluded development under the Land Use Plan would result in a greater demand for water. In the event water resources are depleted and water entitlements are cut back, water purveyors may not be able to meet water demand. Buildout of the Land Use Plan is anticipated to result in a demand of 135.93 million gallons of water per day. General Plan policies and programs and the City’s requirement to make project approvals contingent upon water availability would reduce impacts to a less than significant level.

5.15.2 EXISTING CONDITIONS

Existing water conditions are based on existing (2010) on the ground development conditions within the proposed Expansion Area.

SERVICE AREA

The proposed Expansion Area is primarily located within the Palmdale Water District (PWD). A small portion of the Expansion Area is located within Los Angeles County Waterworks District 40-34 and Crestmore Village Water Company.¹

The PWD was established in 1918 as the Palmdale Irrigation District. The primary function of the District is to provide retail water service to the central and southern portions of the City of Palmdale and adjacent unincorporated areas of Los Angeles County. The PWD encompasses an area of approximately 140 square miles overlying more than thirty non-contiguous areas throughout the southern Antelope Valley.

Established in 1993, Los Angeles County Waterworks District 40, Antelope Valley (LACWWD 40) provides water service to portions of the Antelope Valley. LACWWD 40 has 54,640 service connections and serves a population of 170,440 persons. Portions of the City of Palmdale are located within LACWWD 40 Region 34 (LACWWD 40-34).

**WATER SUPPLY**

PWD receives water from Littlerock Creek Dam and Reservoir, the State Water Project (SWP) and groundwater. Groundwater is obtained from underground aquifers via active wells scattered throughout PWD and chlorinated prior to distribution. SWP water is conveyed to Lake Palmdale via a 30-inch diameter pipeline. Lake Palmdale acts as a forebay for the District’s 30 million gallons per day (mgd) water treatment plant and stores approximately 4,250 acre-feet of SWP water and Littlerock Creek water.

Water is conveyed from the wells or treatment plant to the consumers via a distribution system with pipe sizes ranging between 2- and 42-inches in diameter. PWD maintains 19 storage tanks within the distribution system, with a total capacity of 44.6 million gallons. PWD produces 26,671 acre-feet annually composed of approximately 60 percent surface water and 40 percent groundwater.

LACWWD 40 receives water from the SWP, purchased through the Antelope Valley East Kern Water Agency (AVEK), and local groundwater. In order to protect its groundwater wells, LACWWD 40 utilizes water from the SWP to meet customer demands whenever SWP supply is available. During 2005, LACWWD 40 supplied 54,421 AF of water to its customers. Approximately 66 percent of the water served in its service area was purchased water from AVEK and the remaining 34 percent was groundwater from its wells.

**Surface Water**

The principal streams tributary to the PWD service area are Littlerock and Big Rock creeks, which flow north from the San Gabriel Mountains along the southern district boundary. Numerous intermittent streams also flow into the service area, however run-off is meager. The Littlerock Creek Dam and Reservoir intercepts flows from the Littlerock and Santiago canyons. Runoff from the 65 square mile watershed in the Angeles National Forest to the reservoir is seasonal and varies widely from year to year. For the period 1953-1999, annual inflow for the

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4 Ibid.


available data was 13,285 acre-feet per year. The median inflow for this period was 6,707 acre-feet per year. The difference between the median and average demonstrates that dry years occur more frequently than wet years and that wet years tend to be more extreme.

Littlerock Creek Dam and Reservoir is located approximately 8.5 miles from the City and diverts water from Littlerock Creek. Since 1922, PWD has shared water from this source with Littlerock Creek Irrigation District (LCID). PWD and LCID jointly hold long-standing water rights to divert 5,500 acre-feet per year from Littlerock Creek flows. Per an agreement between the two districts, the first 13 cubic feet per second (cfs) of creek flows is available to LCID. Any flow above 13 cfs is shared between the two districts with 75 percent going to PWD and 25 percent to LCID. Each of the districts is entitled to 50 percent of the reservoir’s storage capacity. Water from Littlerock Creek Reservoir is conveyed to Lake Palmdale through an open canal.

In 1992, during renegotiations of the districts’ agreement, a plan to rehabilitate the existing dam was implemented. The plan involved reinforcing the original multiple-arch construction with a roller-compacted concrete buttress, raising the dam by 12 feet to increase capacity, providing recreational facilities around the reservoir, and replacing the historic wooden trestle between the creek and the reservoir with an underground siphon. This agreement gives the PWD the authority to manage the reservoir. LCID granted ownership of its water rights to PWD for the fifty-year term of the agreement in lieu of contributing financial resources for the rehabilitation work. LCID is entitled to purchase 1,000 acre-feet of water or 25 percent of the yield from Littlerock Reservoir; whichever is less from PWD, in any one calendar year. Upon termination of the 1992 Agreement, the terms of the 1922 Agreement will again define and govern the rights and responsibilities of the PWD and LCID with respect to the dam and the waters stored in the reservoir.

Imported Water

The SWP is the primary source for imported water in the Antelope Valley. The main transport structure of the SWP is the California Aqueduct, which conveys water from northern California to southern California. This facility is managed by the Department of Water Resources (DWR). The aqueduct is an artificial concrete-lined water transport channel that is approximately 450 miles in length. PWD and AVEK have entitlements to water supplies from the SWP.

PWD has been able to take delivery of SWP water since 1985 from the East branch of the California Aqueduct, which passes through the service area. PWD receives its entitlement from a 30 cubic feet per second (cfs) connection on the East Branch, where SWP water is conveyed to Lake Palmdale via a 30-inch diameter pipeline. As stated, Lake Palmdale acts as a forebay for PWD’s 30 mgd water treatment plant and stores approximately 4,250 acre feet of SWP water and Littlerock Creek water.7

In the 1996 Water Master Plan, it was recommended that PWD purchase an additional 3,100 acre-feet per year of SWP water. On December 30, 1999 PWD purchased 4,000 acre-feet per year from Belridge Water District, based out of Bakersfield, California. PWD’s current Table A amount is 21,300 acre-feet per year of SWP water.8

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LACWWD 40 purchases imported water from AVEK. As stated, AVEK purchases imported water from the SWP. AVEK constructed the Domestic Agricultural Water Network (DAWN), which consists of four water treatment plants with clear water storage and more than 100 miles of pipelines. Four 8-million gallon water storage reservoirs near Mojave and one 3-million gallon reservoir at Vincent Hill Summit complete the DAWN network. The bulk of the imported water is treated and distributed to customers throughout its service area. The network also provides delivery of untreated water from the Aqueduct to local farmers and ranchers. The Quartz Hill water treatment plant is capable of producing 90 million gallons per day (mgd) of treated aqueduct water. The Eastside water treatment plant is capable of producing 14 mgd. The Rosamond water treatment plant can produce 14 mgd while the most recently added treatment plant in Acton can produce four mgd of treated water.9

In Spring 2007, the first ever voluntary shutdown of the SWP pumps was done to protect the Delta smelt and other pelagic (open water) fish. In Fall 2007, the shutdown and other actions were found to be incapable of increasing the number of Delta smelt. This lead to a Federal court imposed interim set of rules that would restrict operations of both the SWP and Central Valley Project until a new Federal biological opinion on Delta smelt was prepared.

On August 31, 2007, U.S. District Court Judge Oliver W. Wanger issued a Preliminary Injunction, which included a series of restrictions on the operations of the pumps that supply water from the Sacramento-San Joaquin Delta to the SWP. The effect of the ruling impacts the ability of water purveyors receiving imported water from the SWP. The same Federal court issued a written court order on December 14, 2007 setting forth “interim remedies” to protect the Delta smelt. It is the implementation of these interim remedies that reduced the availability and reliability of the SWP water supply.

The DWR issues a biannual SWP Delivery Reliability Report, which provides an assessment of the SWP supply availability and reliability. The amount of the SWP water supply delivered to the state water contractors in a given year depends on the demand for the supply, amount of rainfall, snowpack, runoff, water in storage, pumping capacity from the Delta, and legal constraints on SWP operation. The 2009 SWP Delivery Reliability Report (2009 Report) identifies current and future SWP water supply conditions assuming no significant improvements are made to convey water past the Delta or to store the more-variable run-off that is expected with climate change. The 2009 Report shows a continuing erosion of the ability of the SWP to deliver water. For current conditions, the dominant factor for these reductions is the restrictive operational requirements contained in the federal biological opinions. For future conditions, it is these requirements and the forecasted effects of climate change.10

The reduction in Table A annual deliveries from 2005 to 2009 demonstrates the decreased reliability and availability. Specifically, the median value estimated for the primary component of SWP Table A annual deliveries for current conditions in the 2005 Report is 3,170 thousand acre feet (taf). In the 2007 Report it is 2,980 taf, and in the 2009 Report, it is 2,680 taf. This is an overall reduction of almost 500 taf. Deliveries estimated for the 2009 Report are reduced by the operational restrictions of the biological opinions issued by the U.S. Fish and Wildlife Service in December 2008 and the National Marine Fisheries Service in June 2009 governing the SWP

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and Central Valley Project operations. The 2007 Report incorporates the interim, and less restrictive, operation rules established by federal Judge Wanger in 2007. The 2005 Report is based upon much less restrictive operational rules contained in the biological opinions issued in 2005.\textsuperscript{11}

The Table A allotment issued for 2011 by the DWR was 1,043,034 acre-feet, or 25 percent of the SWP contractors’ requested amount of 4,172,126 acre-feet. On December 17, 2010, the DWR issued a press release stating that it will be increasing its projected deliveries of the SWP water in 2011 to 50 percent of contractors’ requests. The 50 percent allocation equals 2,086,065 acre-feet. It is noted that DWR is conservative in estimating water deliveries since farmers and others can suffer if expected amounts cannot be delivered; however, according to DWR, it is likely that the 50 percent allocation will be increased as rain and snowfall totals continue to increase.

Federal resource agencies, conservation organizations, water agencies, local agencies, and others continue to identify opportunities to improve the Delta ecosystem and California’s water supplies. The Delta Reform Act of 2009 created the Delta Stewardship Council (DSC), an independent state agency. Its mission is to help achieve the two co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta’s ecosystem. The DSC is required to develop a comprehensive management plan for the Delta (Delta Plan) by January 1, 2012. This long-term plan will be reviewed and possibly revised at least once every five years. State and local agencies proposing actions or projects within the Delta will need to certify for the DSC that those efforts are consistent with the Delta Plan. The planning efforts of a reorganized Delta Protection Commission, newly formed Delta Conservancy, and the BDCP, along with other conservation planning efforts, will inform the DSC as it develops and implements a Delta Plan.

**Groundwater**

PWD and LACWWD 40 receive groundwater from the Antelope Valley Groundwater Basin. The groundwater basin is divided into subbasins. The groundwater basin is principally recharged by deep percolation of precipitation and runoff from the surrounding mountains and hills. The Antelope Valley Groundwater Basin is comprised of two primary aquifers: (1) the principal aquifer and (2) the deep aquifer. The principal aquifer is an unconfined aquifer. Separated from the principal aquifer by clay layers, the deep aquifer is generally considered to be confined. In general, the principal aquifer is thickest in the southern portion of the Valley near the San Gabriel Mountains, while the deep aquifer is thickest in the vicinity of the dry lakes on Edwards Air Force Base. According to DWR, the safe yield of the Basin is somewhere between 31,200 acre feet per year (AFY) and 59,100 AFY.\textsuperscript{12}

According to the Antelope Valley Integrated Regional Water Management Plan (IRWMP), PWD has 26 equipped groundwater wells and four additional drilled, unequipped wells throughout the Lancaster and Pearland groundwater subbasins, and the San Andreas Rift Zone. Two of the equipped groundwater wells have been removed from production due to water quality concerns. The total instantaneous capacity for all PWD wells operating is 15,737 gpm. PWD’s total

\textsuperscript{11} Ibid.

groundwater pumping in 2004 was 11,046 AFY. LACWWD 40 has 42 active wells with a combined pumping capacity of 55.5 mgd (maximum 62,172 AFY).13

The Antelope Valley groundwater basin is in overdraft, which is the condition where annual extraction exceeds the safe-yield. According to AVEK and LACWWD, the basin has been in a state of overdraft for eight to nine years.14 The basin is not adjudicated; therefore, the water rights from and management of the basin have not been court appointed. Initial steps have been taken to adjudicate the basin in order to protect its long-term capacity and beneficial use. Pumping of groundwater by all uses, collectively, has significantly exceeded the natural recharge to the Basin. In the long term, the Basin cannot sustain current pumping levels.

In 2006, the Los Angeles County Department of Public Works, County Sanitation Districts of Los Angeles County, local cities and several water purveyors established the Regional Water Management Group. This group was created to coordinate efforts in drafting the Antelope Valley Integrated Regional Water Management Plan (IRWMP). The IRWMP serves to identify inter-agency objectives, priorities, projects, and management strategies to address the regional water supply issues. The document was finalized in early 2008 for submittal to the State of California’s Department of Water Resources for consideration of Proposition 50 funding.

**Recycled Water**

The majority of City’s sewage collected by the County Sanitation Districts of Los Angeles County (Districts) is sent to Palmdale Water Reclamation Plant (PWRP) (Districts No. 20) with some flows sent to Lancaster Water Reclamation Plant (LWRP) (Districts No. 14). PWRP has a design capacity of 15 million gallons per day (mgd) and currently processes an average flow of 9.3 mgd.15 The LWRP has a design capacity of 16 mgd and currently processes an average flow of 14.0 mgd.16 The 2025 Facilities Plan and EIR for the PWRP and the 2020 Facilities Plan and EIR for the LWRP address the treatment and use of recycled water. Municipal use of recycled water to irrigate parks, school grounds, golf courses, and similar areas can significantly reduce potable water demands. The City has initiated construction of a recycled water distribution system to use recycled water purchased from the Districts to irrigate its parks and other landscaped areas.

**WATER DEMAND**

Table 5.15-1, *Expansion Area Existing Water Consumption*, identifies existing water consumption for the project area based on the water consumption factors provided in the GPEIR. As indicated in Table 5.15-1, the project area currently consumes 2.89 million gallons of water per day.

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14 Presentation to Lancaster City Council, City Council Meeting, January 29, 2008.
15 Adriana Raza, Customer Service Specialist, County Sanitation Districts of Los Angeles County, October 21, 2010.
16 Ibid.
### Table 5.15-1
Expansion Area Existing Water Consumption

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Existing Development</th>
<th>Existing Water Consumption Factor</th>
<th>Existing Water Consumption (gpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>4,847 units</td>
<td>400 gpd/unit</td>
<td>1,938,800</td>
</tr>
<tr>
<td>Commercial</td>
<td>160,213 s.f.</td>
<td>120 gpd/ksf</td>
<td>19,226</td>
</tr>
<tr>
<td>Industrial</td>
<td>483,273 s.f.</td>
<td>120 gpd/ksf</td>
<td>57,993</td>
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<tr>
<td>Public Facilities</td>
<td>279,041 s.f.</td>
<td>120 gpd/ksf</td>
<td>33,485</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td>7,063,508 s.f.</td>
<td>120 gpd/ksf</td>
<td>847,621</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>2,897,125</strong></td>
</tr>
</tbody>
</table>

Consumption Factor based on City of Palmdale General Plan Environmental Impact Report.
s.f. = square feet; gpd = gallons per day; ksf = thousand square feet.
1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 4-16 (Water Consumption Factors), February 1, 1993.
2. Includes schools and institutional uses.

### INFRASTRUCTURE

Local water agencies provide a network of water distribution pipelines within the developed portions of the City of Palmdale. Water main lines are located in existing roadways and typically range from 4- to 12-inches in diameter.

### 5.15.3 REGULATORY FRAMEWORK

#### URBAN WATER MANAGEMENT ACT

The Urban Water Management Plan Act (UWMP Act) was passed in 1983 and codified as California Water Code Sections 10610 through 10657. Since its passage in 1983, the Act has been amended on several occasions. In 2004, the Act was amended to require additional discussion of transfer and exchange opportunities, non-implemented demand management measures, and planned water supply projects. Most recently, in 2005, the Act was amended to require water use projections (required by California Water Code Section 10631) to include projected water use for single-family and multi-family residential housing needed for lower income households. In addition, Government Code Section 65589.7 was amended to require local governments to provide a copy of the adopted housing element to water and sewer providers. The Act requires “every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually, to prepare and adopt, in accordance with prescribed requirements, an urban water management plan.” Urban water suppliers must file these plans with the California Department of Water Resources every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill 11X (1991), the 2005 UWMP Act, incorporated water conservation initiatives, and a Water Shortage Contingency Plan.
SENATE BILL 610

SB 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. Under SB 610, water supply assessments are required to be included in environmental documentation for certain projects, as defined in Water Code 10912[a], subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. Thus, no future action is necessary under the provisions of SB 221 and 610. All projects that meet any of the following criteria require the water availability assessment:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel and motel having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of SB 221 is to condition every tentative map for an applicable subdivision on the applicant by verifying that the public water supplier (PWS) has sufficient water supply available to serve it. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. SB 221 applies to any subdivision, defined as:

- A proposed residential development of more than 500 dwelling units (if the PWS has more than 5,000 service connections); or
- Any proposed development that increases connections by 10 percent or more (if the PWS has fewer than 5,000 connections).

ANTELOPE VALLEY
INTEGRATED REGIONAL WATER MANAGEMENT PLAN

The Antelope Valley Integrated Regional Water Management Plan (IRWMP) provides a vision and direction for the sustainable management of water resources in the Antelope Valley Region
through 2035. The IRWMP identifies existing key water-related challenges being faced by the residents of the Antelope Valley Region, along with projections of how these challenges will change by 2035. In response to current and expected challenges, this IRWMP provides a thorough inventory of possible actions to address the challenges, along with estimated costs and benefits of implementing each action.

**PALMDALE WATER DISTRICT**

**2005 URBAN WATER MANAGEMENT PLAN**

The Palmdale Water District Urban Water Management Plan (UWMP) is an update of the previously prepared 2000 UWMP and takes into account new UWMP Act requirements and changes in demographics, water demand, and supplies. The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions.

**ANTELOPE VALLEY EASTERN KERN WATER DISTRICT**

**2008 URBAN WATER MANAGEMENT PLAN**

The Antelope Valley East Kern Water District (AVEK) is a supplier of imported water from the SWP for the Antelope Valley region. AVEK wholesales water to area retail purveyors, including LACWWD 40. The Urban Water Management Plan (UWMP) evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs, consistent with the UWMP Act.

**2005 INTEGRATED URBAN WATER MANAGEMENT PLAN FOR THE ANTELOPE VALLEY**

The Integrated Urban Water Management Plan serves to comply with the UWMP Act, as well as meet the requirements of a regional water management plan. The UWMP allows for a succinct summary of an agency’s water supplies, demands, and plans to ensure future reliability. It also encourages the efficient management of water supplies by requiring a discussion of potential water transfers and exchanges, desalination, and recycled water opportunities. This plan has been prepared for LACWWD 40, Rosamond Community Services District (RCSD), Quartz Hill Water District (QHWD), and the Los Angeles County Sanitation Districts (LACSD).

**CITY OF PALMDALE GENERAL PLAN**

The Public Services Element provides a plan to ensure that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element. Goal 1 of the General Plan Public Services Element is to “ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.” To this end, it is the City’s objective to:
Objective PS1.2: Ensure that new development is coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost efficient construction and maintenance, and ease of access to facilities.

Objective PS1.3: Utilize land use strategies to maximize use of infrastructure facilities.

Objective PS1.4: Develop and implement City programs to plan for, construct, and maintain municipal facilities.

Objective PS1.5: Coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding.

The Public Services Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

CITY OF PALMDALE MUNICIPAL CODE

Chapter 14.05, Water Efficient Landscape

Palmdale Municipal Code Chapter 14.05 was adopted to: “Promote the values and benefits of landscaping while recognizing the need to utilize water and other resources as efficiently as possible; Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; Establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects; Establish provisions for water management practices and water waste prevention for existing landscapes; and Implement water conservation policies contained in the City's General Plan.”

CITY OF PALMDALE ZONING ORDINANCE

Section 86.01, Landscaping Requirements

Pursuant to Palmdale Zoning Ordinance Section 86.01, Landscaping Requirements, in all projects proposed or required to provide landscaping as part of the development plan, the landscaping shall be provided in accordance with the following provisions, among others:

B. All landscaping shall conform at all times to provisions of Section 14.05 (Landscape Water Conservation) of the City of Palmdale Municipal Code. In addition, landscape area design shall be based upon the principles of water conservation; grouping of plant materials based upon similar water requirements, ecological requirements, climatic conditions, and selection of drought tolerant plant materials.

C. Landscape areas shall be provided with a permanent, fixed automatic irrigation system adequate to meet the water needs of all landscape material. Irrigation systems shall be designed to minimize maintenance and water consumption, and the irrigation systems
shall be properly designed and installed to ensure that overspray onto fences, walls and structures is eliminated to the maximum extent feasible.

H. Graded, undeveloped portions of project sites proposed for future expansion shall be kept in a weed free condition and appropriate ground cover may be required for erosion control. Graded pad sites may require temporary seeding and irrigation for erosion control and to mitigate visual impacts.

5.15.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to water supply. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?
- Will the proposal result in a need for new water systems, or substantial alterations to water supply?

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.15.5 IMPACTS AND MITIGATION MEASURES

WATER SUPPLY AND DEMAND

**Threshold:**

_Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?_

_Will the proposal result in a need for new water systems, or substantial alterations to water supply?_

**Impact Analysis:** The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area,
development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

New development within the proposed Expansion Area in accordance with the General Plan would result in increased water demand. Table 5.15-2, Expansion Area Water Demand, identifies the net increase in water demand for the proposed project based on the water consumption factors provided in the GPEIR.

### Table 5.15-2
Expansion Area Water Demand

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Existing Development</th>
<th>Consumption Factor</th>
<th>Net Increase in Water Consumption (gpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>1,732 units</td>
<td>400 gpd/unit</td>
<td>692,800</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,121,208 s.f.</td>
<td>120 gpd/ksf</td>
<td>134,545</td>
</tr>
<tr>
<td>Industrial</td>
<td>16,642,741 s.f.</td>
<td>120 gpd/ksf</td>
<td>1,997,129</td>
</tr>
<tr>
<td>Public Facilities²</td>
<td>103,019 s.f.</td>
<td>120 gpd/ksf</td>
<td>12,362</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td>1,000,000 s.f.</td>
<td>120 gpd/ksf</td>
<td>120,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,956,836 s.f.</strong></td>
<td></td>
<td><strong>2,956,836</strong></td>
</tr>
</tbody>
</table>

s.f. = square feet; gpd = gallons per day; ksf = thousand square feet.

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 4-16 (Water Consumption Factors), February 1, 1993.
2. Includes schools and institutional uses.

As indicated in Table 5.15-2, future development within the proposed Expansion Area would result in a net increase in water demand of 2.96 million gallons per day (mgd) over existing conditions. The increased water demand represents approximately 2.2 percent of the increase in water demand (135.93 mgd) associated with buildout of the GP Land Use Plan. This increased water demand is based upon projected development permitted by the Land Use Element and typical land use densities.

The PWD 2005 UWMP, AVEK 2008 UWMP, and 2005 IUWMP include a description of the agencies' existing and future water supply sources for the next 20 years.

**PWD 2005 UWMP.** The PWD 2005 UWMP utilizes growth rates obtained from SCAG for the Palmdale area to project population through 2030. It estimates that population within the City would reach approximately 337,314 by 2030. The future sources of supply for the PWD consist of groundwater wells, water from Littlerock Creek Dam and Reservoir and the State Water Project, in addition to conjunctive use, transfers and other programs currently being investigated. PWD estimates water demand (53.4 mgd) to exceed available water supplies (26.5 mgd) under normal conditions beginning in 2010.

According to the PWD 2005 UWMP, the PWD has the pumping capability to extract more groundwater to meet demand, however the local groundwater basins are in overdraft and pumping beyond the safe yield limits is not a viable long-term solution. The PWD has a proactive policy on water resources and is currently investigating other sources of water to increase their supply and reliability. The PWD is investigating short to mid-term water transfers.
for the purpose of increasing the reliability of the SWP supply and mid to long-term water transfers to accommodate increased demand for new development. Both of these types of water transfers can be maximized when used with water banking (conjunctive use) programs. The PWD is investigating water banking programs both locally in the Antelope Valley and programs that exist outside of the Antelope Valley. The purchase of additional Table A SWP water is another potential water resource being looked at by the PWD (refer to the State Water Project Reliability discussion below). The PWD is also looking into the possibility of groundwater recharge using recycled water. According to PWD, implementation of these policies would provide sufficient water supply to meet normal conditions. However, a water supply deficit would continue to occur under single dry and multiple dry year conditions.

The PWD 2005 UWMP provides a water contingency program in the event of a water shortage. The PWD has developed a three-stage rationing plan that would be invoked during declared water shortages. Each stage includes a water reduction objective, in percent of normal demands. The rationing plan is dependant on the cause, severity, and anticipated duration of the water supply shortage. Additionally, the PWD 2005 UWMP includes a water shortage contingency ordinance and identifies potential mandatory compliance measures that may be enacted during a water shortage.

AVEK 2008 UWMP. AVEK sells imported water from the DWR California Aqueduct as part of the SWP. Currently, AVEK has an allocation for purchasing up to 141,400 acre-feet of water per year from the SWP. The AVEK 2008 UWMP is based upon projected SWP Table A allocations from the 2007 SWP Reliability Report. AVEK estimates water demand (196,640 acre-feet per year [AF/Y]) to exceed available water supplies (93,324 acre-feet per year [AF/Y]) under normal conditions beginning in 2007. This comparison is based on current usage patterns by the retail purveyors and agriculture users. The short fall in supply does not take into account the reliability of other sources available to water purveyors, such as their use of groundwater, future groundwater banking programs, future conservation efforts, and use of recycled water.

It is up to the purveying customers of AVEK to direct rationing programs and policies to their consumers. Therefore, expected changes to demand due to dry years would be provided by the purveying customers. The development and use of other water sources, such as groundwater, conjunctive uses, the use of recycled water, and the storage of Article 21 water when available, are essential measures necessary to meet long-term demands.

2005 IUWMP. The 2005 IUWMP has been prepared for LACWWD 40, Rosamond Community Services District (RCSD), Quartz Hill Water District (QHWD) and the Los Angeles County Sanitation Districts (LACSD). As stated, LACWWD 40 serves a portion of the project area and receives water from the SWP, purchased through AVEK, and local groundwater. The 2005 IUWMP shows sufficient water supply available to LACWWD 40 through 2030 with the implementation of planned water supplies, assuming the availability of groundwater remains the same. The ability to meet demand is based upon the water purveyors’ practice of conserving groundwater for additional availability in dry water years.

The IUWMP provides a water shortage contingency analysis in the event of a water shortage. LACWWD 40 has implemented a Phased Water Conservation Plan (PWCP) comprised of nine stages or “Phases” that call for the reduction in water use in order to meet a conservation target. Implementation of a Phase requires determination of a shortage from the County of Los Angeles.
Board of Supervisors. Water shortages could result from reduced availability of AVEK water, main breaks, natural disasters, or earthquakes. Once a shortage is determined, a public hearing is held to determine which Phase should be implemented. In addition to the PWCP, LACWWD 40 has developed an internal Water Shortage Contingency Plan (WSCP). The WSCP, in contrast to the PWCP, does not specifically state the measures that will take effect in a given stage. Instead, it will assist LACWWD 40 in the decision making process and identify the necessary actions to be taken prior to a recommendation to the Board of Supervisors.

State Water Project Reliability. As stated, both PWD and LACWWD 40 (through AVEK) depend upon the SWP to meet water demands within the project area. According to the 2009 Report, there are three significant factors contributing to uncertainty in the delivery reliability of the SWP: possible effects from climate change and sea level rise, the vulnerability of Delta levees to failure, and greater operation restrictions imposed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) in response to decreasing populations of endangered fish species.

Demand levels for the SWP water users are derived from historical data and information from the SWP contractors. Each SWP contract contains a SWP Table A, which states the maximum annual delivery amount from the SWP over the period of the contract. These annual amounts usually increase over time. Most contractors' SWP Table A amounts reached a maximum in 1990. The total of all contractors’ maximum SWP Table A amounts is 4,173 million acre-feet (maf) per year. SWP Table A is used to define each contractor’s portion of the available water supply that DWR will allocate and deliver to that contractor. The SWP Table A amounts in any particular contract are not guarantees of annual delivery amounts but are used to allocate individual contractors’ portion of the total delivery amount available.

SWP Article 21 refers to a provision in the contract for delivering water that is available in addition to SWP Table A amounts. SWP Article 21 contracts allow contractors to receive additional water deliveries only under specific conditions. These conditions are: 1) The water is available only when it does not interfere with SWP Table A allocations and SWP operations; 2) The water is available only when excess water is available in the Delta; 3) The water is available only when conveyance capacity is not being used for SWP purposes or scheduled SWP deliveries; and 4) The water cannot be stored in the SWP system.

The 2009 Report provides SWP Table A delivery projections under future conditions (2029). According to the 2009 Report, the average delivery from the SWP for 2029 conditions is 60 percent of maximum SWP Table A allotments. This represents a six to nine percent decrease of maximum SWP Table A for future conditions when compared to the 2007 Report. The decrease in deliveries is primarily due to the effect of the biological opinions’ requirements in reducing the amount of Delta water available for export by the SWP in comparison to the Study 2027. However, the estimate of minimum annual SWP Table A delivery is shown to increase four to five percent of maximum SWP Table A amounts when compared to the 2007 Report.

Conclusion. Both PWD and AVEK anticipate water demand would exceed available supplies in the near future. In the event water demands exceed supplies, water purveyors would impose mandatory conservation measures, reducing the potential impact. However, PWD and AVEK depend upon imported water from the SWP to adequately meet water demand. Over recent years, the SWP has reduced the Table A allotments to contractors. It is anticipated that the SWP’s inability to deliver the full entitlement of contractors throughout the State would continue.
Although it is anticipated that the DWR would solidify a supply source to meet future demands, water supply cannot currently be guaranteed. With the reduced availability and reliability of the SWP water supply, reliance on groundwater to meet water demand would be greater. As stated, the groundwater basin is currently in overdraft. Therefore, it cannot be determined whether adequate water supply would be available to serve future growth within the proposed Expansion Area.

Future development within the project area would increase water demand above existing conditions. Each future development project would have a specific impact on demand, depending on the proposed land use type. It is the City's goal to ensure that adequate public services and facilities are available to support development in an efficient and orderly manner (Goal PS1). The City requires new development to obtain adequate water service to meet the increased demand generated by that development (Policy PS2.1.1). Additionally, the City requires new development to construct on-site improvements necessary to serve the development (PS1.1.1) and the City Engineer to review and approve designs and plans from water agencies. However, because the basin is currently in overdraft and groundwater resources would potentially be depleted beyond existing levels and SWP water allocations have been reduced and cannot be guaranteed, impacts to water supply associated with future development within the proposed Expansion Area in accordance with the General Plan would be significant and unavoidable.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.

Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.

Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.

Policy ER4.2.4: Coordinate with local water agencies to monitor ground water levels, State water allocations and development approvals, to assure that development does not outpace long-term water availability. In the event applicable water agencies notify the City that ground water levels and State water allocations are insufficient to serve existing development or projected development, the City will determine whether it is appropriate to reevaluate this General Plan and take other appropriate actions, as permitted by law.
Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.2: Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for groundwater recharge within the Planning Area; through the land use planning process, ensure that important recharge areas are retained for that use.

Policy ER4.3.3: Continue to seek out long-range water management techniques as new technology is developed; promote implementation of systems which are feasible and appropriate to the Planning Area.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.

Policy ER4.3.5: Participate in regional efforts to retain imported water allocations and seek out other sources as they become available.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.
Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Significant and Unavoidable Impact.

5.15.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

**BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT WATER SUPPLIES AND SYSTEMS.**

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to water is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-13. The analysis concluded that buildout of the General Plan would require expansion of water services and additional water resources. Assuming additional water is available from the SWP and water conservation and recharge programs are successful, no significant impacts are anticipated. However, cumulative impacts on water resources could be significant.

Future development associated with the proposed Expansion Area and other cumulative projects would increase demand for water above existing conditions. Water availability would be determined on a project-by-project basis. Adequate water supplies are anticipated to be available in normal and dry years to serve the proposed project and future projects within the service boundaries of PWD and AVEK. In accordance with SB 610, a water supply assessment would be required for projects exceeding established development thresholds. However, the availability and reliability of the SWP water supply has been reduced and cannot be guaranteed. Therefore, it cannot be determined whether adequate water supply would be available to serve the proposed project and related cumulative projects. Therefore, cumulative impacts to water supply are considered significant and unavoidable.

The GPEIR determined that buildout of the General Plan would result in a demand of 135.93 million gallons of water per day. The GPEIR notes that if water deliveries from the SWP to PWD and AVEK are reduced, it will be difficult for water purveyors to meet future water demands. With implementation of City programs and GP policies, impacts to water service...
would be minimized, but not to less than significant. However, City requirements to make project approvals contingent upon water availability would reduce impacts to a less than significant level. It was also concluded groundwater resources would become a scarce commodity, without the implementation of measures to abate the lowering of the water table. Impacts to groundwater resources were concluded to be less than significant with implementation of water conservation and recharge programs. Future development within the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development and improvements within the area were assumed consistent with the General Plan Land Use Map. As such, potential impacts to water supply were anticipated in the GP/GPEIR. However, it should be noted that water sources identified as available in the GP/GPEIR, are not the same water sources that are available currently, or anticipated to be available in the future.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Significant and Unavoidable Impact.

**5.15.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

Implementation of the proposed project would result in significant unavoidable impacts associated with the availability of water supplies under project and cumulative project conditions. If the City of Palmdale approves the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.
5.16 Wastewater
5.16 WASTEWATER

5.16.1 INTRODUCTION

This section identifies existing conditions within the City of Palmdale and provides an analysis of potential impacts to wastewater facilities that could result from implementation of the proposed project. This section is based on the following resources:

- City of Palmdale Sewer Master Plan (RMC Water and Environment, September 2009);
- City of Palmdale Sewer System Management Plan (RMC Water and Environment, May 2009); and
- County Sanitation Districts of Los Angeles County.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with wastewater as a result of full implementation of the Palmdale General Plan were evaluated in Section 4.2.11 (Public Utilities) of the GPEIR (pages 4-171 through 4-216). The GPEIR concluded development under the Land Use Plan would result in the need for new sewage treatment plants and sewer trunk lines. Buildout of the Land Use Plan is anticipated to generate 112.71 million gallons of wastewater per day. General Plan policies and programs would reduce impacts to a less than significant level.

5.16.2 EXISTING CONDITIONS

Existing wastewater conditions are based on existing (2010) on the ground development conditions within the proposed Expansion Area.

WASTEWATER FACILITIES

The City of Palmdale owns, operates, and maintains the wastewater collection system that serves the City. The Palmdale Sewer Maintenance District operates and maintains the wastewater collection system within the City’s 105 square mile service area. The City’s sewer system consists of 396 miles of pipe and 8,441 manholes. The majority of gravity pipe is vitrified clay pipe (VCP) and less than 15 inches in diameter. Over 80 percent of the sewer system was built after 1980 and is less than 30 years old.¹ Wastewater flows are discharged to

local sewer lines for conveyance to County Sanitation Districts of Los Angeles County (Districts) trunk mainlines for wastewater treatment at reclamation facilities.

There are two existing pump stations in the system and an additional pump station that is not currently in operation. The larger pump station, located at 1718 East Avenue S (Avenue S Pump Station), is currently maintained by the Palmdale Sanitary Sewer Collection System. The second pump station, located at 37700 Tierra Subida Avenue, is maintained by the City. The second pump station serves a small bathroom at the Pelona Vista Park. The third pump station has been approved by the City and is part of the Ritter Ranch development. The Ritter Ranch pump station is a temporary lift station, required until the sewer main line, located within Avenue S and Bridge Road within the adjacent City Ranch Specific Plan, is completed. The pump station is located at the eastern terminus of Westland Drive and has been partially constructed.

The project area is primarily served by existing sewer systems. However, several parcels within the project area are served by septic systems. Plant 42 has its own sewer system, which serves the buildings within the site. Plant 42 is serviced by existing septic systems as well as LA County Sanitation District sewer. A portion of the northern half of Plant 42 is serviced by a LACSD trunk line along Avenue M, which then flows to the north along 30th Street East. Some of the southern portion of Plant 42 is serviced by a trunk line located within Blackbird Way, which flows south along 15th Street East to Rancho Vista Boulevard. All on-site lines within Plant 42 are private.

**WASTEWATER TREATMENT**

The majority of City’s sewage collected by the Districts is sent to Palmdale Water Reclamation Plant (PWRP) (Districts No. 20) with some flows sent to Lancaster Water Reclamation Plant (LWRP) (Districts No. 14). PWRP has a design capacity of 15 million gallons per day (mgd) and currently processes an average flow of 9.3 mgd. The LWRP has a design capacity of 16 mgd and currently processes an average flow of 14.0 mgd. Portions of the project area are currently outside the jurisdictional boundaries of the Districts.

**5.16.3 REGULATORY FRAMEWORK**

**CITY OF PALMDALE GENERAL PLAN**

The Public Services Element provides a plan to ensure that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to serve the development identified in the Land Use Element. Goal 1 of the General Plan Public Services Element is to “ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.” To this end, it is the City’s objective to:

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2 Palmdale Sewer Master Plan Final Report, Figure 2-3 (Parcels on Septic Systems), September 2009.
3 Adriana Raza, Customer Service Specialist, County Sanitation Districts of Los Angeles County, October 21, 2010.
4 Ibid.
Objective PS1.2: Ensure that new development is coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost efficient construction and maintenance, and ease of access to facilities.

Objective PS1.3: Utilize land use strategies to maximize use of infrastructure facilities.

Objective PS1.4: Develop and implement City programs to plan for, construct, and maintain municipal facilities.

Objective PS1.5: Coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding.

The Public Services Element Policies that are relevant to the proposed project are outlined in the Impacts and Mitigation Measures Section below.

**CITY OF PALMDALE MUNICIPAL CODE**

**Chapter 13.08, Permits, Fees, Design, and Inspection Requirements**

**ARTICLE I, SEWER PERMIT REQUIRED**

Section 13.08.010, Sanitary Sewer Policy, requires all new buildings constructed for human occupancy in the City of Palmdale to be connected to a public sewer unless the parcel complies with General Plan Policy PS 2.2.4.

Section 13.08.090, Sewer Permit – Determination of Capacity – Agreement on Future Assessments, states that no sewer permit shall be issued for the direct connection of any lot to a public sewer which was not designed for and intended to directly serve such lot unless the City first determines that there is additional capacity available in such sewer beyond that required to serve the property for which it was designed.

**ARTICLE II, FEES**

Section 13.08.120, Connection to Public Sewer – Payment of Fees Required, states that any person desiring to connect to a public sewer shall, as a prerequisite to obtaining the permits required by Chapter 13.08, pay all fees or charges which may be required by the City of Palmdale.
ARTICLE III, DESIGN STANDARDS

Article III establishes the legal authority for the City to require new developments and/or sewer connections to the public sewer be designed, constructed, and inspected according to defined standards for all infrastructure.

5.16.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to wastewater systems. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes the following to occur:

- Will the project result in a need for new systems or substantial alterations to sanitary sewer?

Based on these standards, the effects of the proposed project have been categorized as either a “less than significant impact” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.16.5 IMPACTS AND MITIGATION MEASURES

WASTEWATER GENERATION

Threshold:
Will the project result in a need for new systems or substantial alterations to sanitary sewer?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

WASTEWATER FACILITIES

New development within the proposed Expansion Area would result in increased wastewater generation. The Palmdale Sewer Master Plan analyzes flows and determines sewer system capacity deficiencies and improvements necessary to serve the growth identified for the City.
Although District and CSMD facilities are not the responsibility of the City, they were included in the analysis to identify deficiencies in the trunk sewer or CSMD systems. Additionally, the Sewer Master Plan assumed parcels currently served by septic tanks would be added to the City’s sewer system. Flow estimates were developed for buildout. Buildout flows were based on information from several sources, primarily the City’s detailed inventory and projections of its housing units and employment performed as part of its General Plan Circulation Element Update. Other data sources used in estimating flows included census data, general and specific plans, parcel-level land use, sewer billing data, and water consumption records for major dischargers. The Sewer Master Plan assumes a 2030 City buildout of 259,703 persons and 72,971 housing units, which is less than the population and housing estimates identified by the Palmdale GP/GPEIR. The Sewer Master Plan also assumes 143,418 total employees within the City at buildout. These estimates were determined by City Staff to more accurately reflect the population and employment growth anticipated to occur by 2030.

Buildout within the proposed Expansion Area in accordance with the General Plan would allow for an additional 1,732 dwellings, resulting in a potential population growth of approximately 6,133 persons. Additionally, buildout in accordance with the General Plan would allow for an additional 18.9 million square feet of non-residential land uses. The employment projection associated with the non-residential land uses is approximately 16,563 jobs; refer to Section 5.1, Population, Housing, and Employment. The growth that could occur within the proposed Expansion Area is consistent with the City’s current Land Use Plan and represents approximately 5.2 percent of the population and housing growth, and 15.6 percent of the employment growth anticipated by the Sewer Master Plan.

The capacity of the modeled sewers was assessed under both peak dry and peak wet weather flow conditions. For Year 2006, all of the City’s sewers were found to satisfy the City’s criteria for adequate capacity under both dry and wet weather flow conditions. The District trunk sewers in the City were found to have only minor capacity deficiencies under dry weather flow conditions, but had potential deficiencies under wet weather flow conditions that could occur during extreme rainfall events. However, the potential deficiencies should not be severe enough to cause sewer overflows. One of these trunk sewer deficiencies was previously known and is being addressed by the District through construction of the new Trunk A Relief Sewer on Technology Drive.

Under 2030 dry weather flow conditions, only one reach of City sewer (located outside of the project area along 45th Street East, between Avenue R and Avenue S) is projected to have a capacity deficiency. Under 2030 wet weather conditions, one additional deficiency on a City sewer was identified (located outside of the project area near 30th Street West) as a result of development in Joshua Ranch. The Sewer Master Plan identifies these two improvements for the City’s Capital Improvement Program. No deficiencies were identified within the proposed Expansion Area.

It is the City’s intent to ensure that adequate facilities are available to serve existing and future development within the City, consistent with the Land Use Plan. The City requires new development to construct on-site improvements pursuant to City standards and construct or

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5 This population projection is based on 100 percent occupancy, 1,732 new DU, and 3.541 persons per household.
6 Palmdale Sewer Master Plan Final Report, September 2009.
provide a fair share contribution to off-site improvements necessary to serve the development (Policy PS1.1.1 and Policy PS1.1.2). Additionally, the City adopts and annually updates the City’s Capital Improvement Program to prioritize funding for public works projects (Policy PS1.4.1) and coordinates with the Districts for regional sewer facilities within the City (Policy PS2.2.3). Additionally, both the General Plan (PS2.2.2) and the City’s Municipal Code require payment of applicable fees for future development projects to connect to the public sewer system in order to ensure the City’s sewer system is maintained and capacity is increased, as necessary. Accordingly, all future development within the project area would be subject to compliance with the GPEIR Policies and City’s Municipal Code, which are intended to lessen potential impacts to sewer facilities.

The Sewer Master Plan identifies future deficiencies to Districts’ trunk sewers associated with buildout. The District has confirmed that presently no deficiencies exist in Districts’ facilities that serve the City. However, availability of sewer capacity depends upon project size and timing of connection to the sewerage system. The availability of trunk sewer capacity would be verified as individual projects are proposed within the project area. The Districts would determine if adequate capacity is available within the Districts’ trunk system and treatment facilities to serve the development being proposed at that time.

The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts’ sewerage system or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. The connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the sewerage system to accommodate the proposed project. Individual development projects would be required to pay the connection fee before a permit to connect to the sewer is issued. Therefore, payment of fees would result in a less than significant impact.

**WASTEWATER TREATMENT**

Sanitation District No. 20 operates the Palmdale Water Reclamation Plant at 39300 30th Street East, which has a design capacity of 15.0 mgd. According to the Final Palmdale Water Reclamation Plant 2025 Facilities Plan and EIR (September 2005), the District currently treats 9.4 mgd. However, based upon forecasts of the Southern California Association of Governments (SCAG) within the 2004 Regional Transportation Plan (RTP), LACSD has determined that by 2025 the District’s population will be approximately 225,000 and the volume of wastewater will be 22.4 mgd. Under the growth model developed by SCAG, the current capacity of the Palmdale Water Reclamation Plant will be reached by 2013.

The Lancaster Water Reclamation Plan (LWRP) is located at 1865 West Avenue D and has a design capacity of 16.0 mgd. The Los Angeles County Sanitation Districts has prepared a Final Lancaster Water Reclamation Plant 2020 Facilities Plan and EIR (May 2004) for the expansion of the Lancaster Water Reclamation Plant, which was expected to reach capacity in 2007-2008 according to information contained within the FEIR.

Based upon the Sanitation District’s plan to expand capacity, as described within the Final Palmdale Water Reclamation Plant 2025 Facilities Plan and EIR and the Final Lancaster Water Reclamation Plant 2020 Facilities Plan and EIR, it is anticipated that the District will have adequate capacity to serve the project.
Following compliance with the City’s development review process and GPEIR recommended mitigation and Policies, project implementation would result in less than significant impacts involving sewer services.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Policy PS1.1.1:** Require all new development, including major modifications to existing development, to construct required onsite infrastructure improvements pursuant to city standards.

**Policy PS1.1.2:** Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required offsite improvements needed to support the project.

**Policy PS1.1.3:** Require that on and offsite improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

**Policy PS1.1.4:** Require that adequate provisions are made for maintenance of public improvements, prior to approval of any new development project.

**Policy PS1.1.5:** When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of backbone plans for roads, sewer, water, drainage and community facilities, prior to granting conditional approval of development applications.

**Policy PS1.2.1:** Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction, and maintenance.

**Policy PS1.2.5:** Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

**Policy PS1.2.8:** Distribute the costs of extending infrastructure equitably among those benefiting from the improvement.

**Policy PS1.4.1:** Adopt and annually update the city’s Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with this General Plan.

**Policy PS1.4.3:** Adopt, implement, and annually review user fee and impact fee programs, to support the cost of constructing capital facilities and providing services.
Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff’s department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Policy PS2.2.1: Coordinate with the Los Angeles County Sanitation District to evaluate the sewage disposal system as often as necessary (at least biannually), to ensure adequacy of the system to meet changes in demand and changes in types of waste which occur as a result of development.

Policy PS2.2.2: Require new development to pay necessary fees for expansion of the sewage disposal system to the appropriate agencies, to handle the increased load which it will generate.

Policy PS2.2.3: Support the Los Angeles County Sanitation District in preparation of a master plan for regional sewer facilities in Palmdale.

Policy PS2.2.4: Require that all commercial, industrial, institutional, multiple family and single-family residential uses with lot sizes of less than one acre be connected to a public sewer system.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.16.6 CUMULATIVE IMPACTS
AND MITIGATION MEASURES

BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS INVOLVING WASTEWATER.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to water is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-14. The analysis concluded that buildout of the General Plan would require the extension of existing sewer services. Additionally, treatment plants and sewer mains would need to be constructed to accommodate future buildout of the City.

Future development within the proposed Expansion Area and cumulative development would increase demand for wastewater services within the service area of the City and the Districts. There are currently no deficiencies or significant treatment capacity limitations associated with City or District facilities. The Sewer Master Plan assesses growth associated with buildout of the City’s service system. Future development associated with buildout of the City, including
development of the proposed Expansion Area, would be adequately served by the City’s sewer system. However, development within the proposed Expansion Area in addition to cumulative development could result in significant impacts to District facilities.

Individual development projects would be reviewed on a project-by-project basis by the City and the Districts to determine the availability of adequate treatment capacity along with the continuous assessment of capacity flows. Individual development projects would be required to verify that existing capacity exists to convey and treat the potential wastewater generated with the new development. Additionally, development projects would be required to pay the required fees prior to connecting to the City’s or Districts’ facilities. Additionally, the City’s General Plan Update includes policies to reduce potential growth related impacts associated with the proposed General Plan, including wastewater services and facilities. Compliance with the General Plan Policies and programs would reduce potential cumulative impacts to wastewater facilities to a less than significant level.

Future development within the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development and improvements within the area were assumed consistent with the General Plan Land Use Map. Project implementation would be consistent with the analysis presented in the GPEIR, and would result in no greater sewer impacts than previously identified. Additionally, all future development within the Expansion Area would be subject to compliance with the GPEIR Policies and Mitigation Measures. Therefore, less than significant cumulative sewer impacts are anticipated.

**Mitigation Measures:**

**GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

**Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### 5.16.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Potential wastewater impacts resulting from project implementation would be less than significant following compliance with the GPEIR recommended mitigation and Policies, and the City’s development review process.
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5.17 Solid Waste
5.17 SOLID WASTE

5.17.1 INTRODUCTION

This Section provides existing conditions and background information necessary to determine the Project’s potential impacts. Specifically, this section compares the solid waste generation within the Expansion Area with the capacity of the existing landfills that accept solid waste from the City of Palmdale (City). Mitigation measures to avoid impacts or reduce their significance are provided, as necessary.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts involving solid waste generation as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.11 (Public Utilities) (pages 4-188 through 4-190). The GPEIR concluded solid waste generation for General Plan buildout is estimated 3,562 tons per day (TPD) (approximately 1.3 million tons per year (TPY). The GPEIR also concluded that there should be adequate capacity to dispose of the City’s generated waste and if the City’s recycling programs are successful, only 1,781 (TPD) (650,065 TYP) would be disposed in landfills at buildout.

5.17.2 EXISTING CONDITIONS

DISPOSAL SERVICES

The City currently maintains a franchise agreement with Waste Management of Antelope Valley (Waste Management) for collection and disposal of the City’s residential solid waste. The City requires each occupied residence to maintain weekly trash and recycling services, which consist of one 96 gallon trash cart and two trash bags; one 64 gallon greenwaste cart; and one 64 gallon recycling cart. The City currently issues permits to three disposal companies for commercial/industrial solid waste disposal: Waste Management; Larey Rubbish Pick-up Service; and Crown Disposal.
DISPOSAL FACILITIES

There are two landfills that could be used for disposal of the Expansion Area’s solid waste: the Antelope Valley Public Landfill and the Lancaster Landfill and Recycling Center.

Antelope Valley Public Landfill I

Waste Management’s Antelope Valley Public Landfill I is located at 1200 West City Ranch Road in Palmdale. The facility’s permitted disposal area encompasses approximately 185 acres and offers waste disposal and recycling services. The landfill’s permitted maximum disposal is 1,400 TPD. The landfill’s total estimated permitted capacity is 6,480,000 cubic yards (CY), with a remaining estimated capacity of approximately 46 percent (2,978,143 CY). The anticipated closure date for the Antelope Valley Landfill is January 1, 2041.

The facility also includes the new Antelope Valley Environmental Collection Center (EAVECC). The AVECC is the area’s first permanent Environmental Collection Center. This residential special material collection facility serves the needs of Antelope Valley residents free of charge, in order to discourage the improper disposal of household wastes. The AVECC receives Household Hazardous Waste (e.g., paint, oil and batteries) and old electronics (e.g., TVs, monitors, computers and printers).

Lancaster Landfill and Recycling Center

Waste Management’s Lancaster Landfill and Recycling Center is located at 600 East Avenue F in the City of Lancaster. The Facility’s permitted disposal area encompasses approximately 209 acres and offers waste disposal and recycling services. The facility’s permitted maximum disposal is 1,700 TPD. The landfill’s total estimated permitted capacity is approximately 27 million CY, with a remaining estimated capacity of approximately 72 percent (approximately 19.1 million CY). The anticipated closure date for the Lancaster Landfill is August 2, 2012.

SOLID WASTE GENERATION

Table 5.17-1, Expansion Area Existing Solid Waste Flow, provides an estimate of the Expansion Area’s existing solid waste flow. As indicated in Table 5.17-1, the solid waste generated by the Expansion Area’s existing land uses is approximately 25,068 TPY.

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Table 5.17-1
Expansion Area Existing Solid Waste Flow

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Solid Waste Flow Rate$^1$ (lb/du/day or lb/tsf/day)$^2$</th>
<th>Existing Conditions</th>
<th>Solid Waste Flow (Tons per Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DU</td>
<td>Square Feet</td>
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<tr>
<td>Low Density Residential</td>
<td>15.00</td>
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<td>High Density Residential</td>
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<td>Subtotal Non-Residential</td>
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<td>7,986,035</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
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</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 4-18 (Solid Waste Generation Factors), February 1, 1993.
2. Lb/du/day = Pounds per Dwelling Unit per Day; and lb/tsf/day = Pounds per Thousand Square Feet per Day.

5.17.3 REGULATORY FRAMEWORK

CALRECYCLE

The management of solid waste is governed by regulations established by CalRecycle, which is the new home of California’s recycling and waste reduction efforts. Officially known as the Department of Resources Recycling and Recovery, CalRecycle is a new department within the California Natural Resources Agency and administers programs formerly managed by the State’s Integrated Waste Management Board (CIWMB) and Division of Recycling. CalRecycle delegates local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies. In 1997, some of the regulations adopted by the State Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939), in order to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 established a waste management hierarchy as follows:
• Source Reduction;
• Recycling;
• Composting;
• Transformation; and
• Disposal.

The law also required that each county prepare a new Integrated Waste Management Plan and each city prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory state waste diversion goal of 50 percent by the year 2000. The Act mandated that California’s 450 jurisdictions (i.e., cities, counties, and regional waste management compacts), implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit a petition for a goal extension to CalRecycle. Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

ASSEMBLY BILL 399

In 2005, AB 399 established the Multifamily Dwelling Recycling Program Law to increase recycling in multifamily dwellings. This bill required the IWMB, local governments, and owners and managers of multifamily dwellings to provide information and assistance to achieve higher levels of recycling in multifamily dwellings. By July 1, 2007, owners of a multifamily dwelling were required to provide a written notice to a tenant of the multifamily dwelling, directing the tenant to a website that provides information regarding how tenants could reduce, reuse, and recycle solid waste materials.

PER CAPITA DISPOSAL MEASUREMENT ACT OF 2008

SB 1016, Wiggins, Chapter 343, Statutes of 2008 passed in 2008. It introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. The bill repealed the board's two-year process, requiring instead that the board make a finding whether each jurisdiction was in compliance with the act's diversion requirements for calendar year 2006 and to determine compliance for the 2007 calendar year, and after, based on the jurisdiction's change in its per capita disposal rate. The board is required to review a jurisdiction's compliance with those diversion requirements in accordance with a specified schedule, which is conditioned upon the board finding that the jurisdiction is in compliance with those requirements or has implemented its source reduction and recycling element and household hazardous waste element. The bill requires the board to issue an order of compliance if the board finds that the jurisdiction has failed to make a good faith effort to implement its source reduction and recycling element or its household hazardous waste element, pursuant to a specified procedure.

The per capita disposal rate is a jurisdiction-specific index, which is used as one of several “factors” in determining a jurisdiction's compliance with the intent of AB 939, and allows CalRecycle and jurisdictions to set their primary focus on successful implementation of diversion
programs. Meeting the disposal rate targets is not necessarily an indication of compliance. Palmdale’s Disposal Rate Targets, which are the most current targets as calculated by CalRecycle are 6.6 Pounds per Person per Day (PPD) per Resident and 34.8 PPD Per Employee.³

For the 2009 reporting year, Palmdale implemented a total of 37 programs, including the following, among others:

- Composting (Residential Curbside Greenwaste Collection, Residential Self-haul Greenwaste, Commercial Self-Haul Greenwaste, and Food Waste Composting);
- Facility Recovery (MRF, Landfill, and Alternative Daily Cover);
- HHW (Permanent Facility, Mobile/Periodic Collection, Curbside Collection, and Education Programs);
- Public Education (Electronic [radio, TV, web, hotlines], Print [brochures, flyers, guides, news articles], Outreach [tech assistance, presentations, awards, fairs, field trips], and Schools [education and curriculum]); and
- Recycling (Residential Curbside, Residential Drop-Off, Residential Buy-Back, Commercial On-Site Pickup Government Recycling Programs, Special Collection Seasonal [regular], and Special Collection Events).

For the 2009 reporting year, Palmdale’s Per Resident Disposal Rate was 3.9 PPD and Per Employee Disposal Rate was 22 PPD,⁴ which were less than the City’s Disposal Rate Targets of 6.6 PPD per Resident and 34.8 PPD Per Employee. Therefore, based on preliminary data, the City is currently achieving AB 939’s diversion requirement.

LOS ANGELES COUNTYWIDE SITING ELEMENT

In 1997, the County of Los Angeles prepared the Los Angeles Countywide Siting Element that estimates the amount of solid wastes generated in the County and proposes various diversion and alternate disposal options. The Siting Element identifies the Los Angeles County Department of Public Works (LACDPW) as the responsible agency to develop plans and strategies to manage and coordinate the solid waste generated in the County unincorporated areas and address the disposal needs of Los Angeles County as a whole. The Siting Element is based upon the traditional practice of collecting and disposing of solid waste at landfills in the local vicinity. Therefore, currently many jurisdictions (such as the County of Los Angeles) are stating that existing local landfill space may reach capacity in the very near future.

⁴ Ibid.
CITY OF PALMDALE
SOURCE REDUCTION AND RECYCLING ELEMENT (SRRE)

Pursuant to AB 939, all cities and counties within the State are required to prepare integrated waste management plans to attain solid waste reduction of 50 percent by the end of year 2000. To this end, the City of Palmdale Solid Waste Management Plan (SWMP) was adopted in November 14, 1991 (by Resolution 91-236). The City’s plan includes a Source Reduction and Recycling Element (SRRE), a Household Hazardous Waste Element (HHWE), and a siting section, which identifies criteria for the location of solid waste, landfills, transfer stations, recycling centers, and other waste facilities. The City implements this Plan in all activities related to waste management.

5.17.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines, as amended, and used by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study includes questions relating to solid waste. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Require new solid waste disposal facilities or substantial alterations to existing facilities;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- Does not comply with federal, state, and local statutes and regulations related to solid waste.

Based on these significance thresholds and criteria, the Project's effects have been categorized as either "effects found not to be significant" or "potentially significant impact." Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.17.5 IMPACTS AND MITIGATION MEASURES

SOLID WASTE DISPOSAL

Thresholds:
Would the project require new solid waste disposal facilities or substantial alterations to existing facilities?

Would the project be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs?
Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area ("Expansion Area"). The additional projects and programs proposed within the Expansion Area would involve public facilities, and infrastructure and transportation improvements. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, buildout of the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Buildout of the Expansion Area in accordance with the General Plan would generate additional solid waste, placing an increased demand on solid waste disposal services and ultimately requiring disposal at a landfill. Table 5.17-2, Expansion Area Buildout Solid Waste Flow, provides an estimate of the Expansion Area’s solid waste flow at buildout. As indicated in Table 5.17-2, the solid waste generated by the Expansion Area at buildout would be approximately 60,751 TPY. This represents an increase of approximately 142 percent (35,682 tons) per year over the area’s existing solid waste generation.

<table>
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<th>Land Use</th>
<th>Solid Waste Flow Rate¹ (lb/du/day or lb/tsf/day)²</th>
<th>Future Conditions</th>
<th>Solid Waste Flow (Tons per Year)</th>
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<td>DU</td>
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<tr>
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<tr>
<td><strong>Total % Over Existing</strong></td>
<td></td>
<td></td>
<td><strong>142%</strong></td>
</tr>
</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 4-18 (Solid Waste Generation Factors), February 1, 1993.
2. Lb/du/day = Pounds Per Dwelling Unit Per Day; and lb/tsf/day = Pounds Per Thousand Square Feet Per Day.
3. Refer to Table 5.17-1, Expansion Area Existing Solid Waste Flow.

The increased solid waste due to project implementation could be accommodated within the existing landfill capacity. As previously noted, the Antelope Valley Public Landfill has a remaining estimated capacity of approximately 46 percent (2,978,143 CY) and the Lancaster...
Landfill and Recycling Center has a remaining estimated capacity of approximately 72 percent (approximately 19.1 million CY). All future development within the Expansion Area would be subject to compliance with the General Plan Goals and Policies. Namely, it is the City’s goal (Goal PS6) to provide adequate facilities and programs to accommodate solid waste and hazardous waste collection, handling and disposal. In compliance with Objective PS6.1, the City continues to implement the City of Palmdale Solid Waste Management Plan (SWMP), which includes a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE). Per the City’s SWMP, all future development projects within the City would be required to comply with the SRRE and HHWE for diverting solid waste. Compliance with the General Plan Policies outlined below would further reduce the volume of solid waste ultimately disposed of at a landfill. Continued compliance with the SWMP (including the SRRE and HHWE) and General Plan Policies would ensure that the impacts to the capacities of the landfills serving the Expansion Area are minimized, thus, a less than significant impact would occur in this regard.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy PS6.1.1: Review proposed development with respect to the SWMP to ensure consistency.

Policy PS6.1.2: Base future decisions on franchise agreements on the SWMP.

Policy PS6.1.3: Continue to implement the City’s adopted waste reduction and recycling programs in compliance with the SWMP.

Policy PS6.1.4: Update and maintain the SWMP as needed, with a complete review at least every five years, to ensure that the Plan accurately reflects changing waste stream conditions, government regulations, and City goals.

**Project Mitigation Measures:** No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**COMPLIANCE WITH STATUTES AND REGULATIONS**

**Threshold:** *Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

**Impact Analysis:** AB 939 requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. SB 2202 clarified that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000. SB 1016 introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. For the 2009 reporting year, Palmdale’s
Per Resident Disposal Rate was 3.9 PPD and Per Employee Disposal Rate was 22 PPD, which were less than the City’s Disposal Rate Targets of 6.6 PPD per Resident and 34.8 PPD Per Employee. Therefore, based on preliminary data, the City is currently achieving AB 939’s diversion requirement. Additionally, in compliance with Objective PS6.1, the City continues to implement the City of Palmdale SWMP, which requires that all future development projects within the City comply with the SRRE and HHWE for diverting solid waste. Compliance with the General Plan Policies outlined above would further reduce the volume of solid waste ultimately disposed of at a landfill (i.e., decrease the City’s PPD rates) in furtherance of meeting AB 939’s 50 percent diversion requirement. Continued compliance with the SWMP (including the SRRE and HHWE) and General Plan Policies would ensure that future developments and improvements within the Expansion Area would comply with the statutes and regulations related to solid waste. Therefore, less than significant impacts would occur in this regard.

Mitigation Programs:


Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.17.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT SOLID WASTE DISPOSAL AND LANDFILL CAPACITY.

Impact Analysis: The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to solid waste is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-15. The analysis concluded the proposed General Plan and related projects are estimated to produce approximately 7,469 TPD of solid waste at buildout, not considering recycling programs. No significant impacts are expected at buildout, provided alternative disposal site are available when existing landfills are filled to capacity.

Buildout of the City in accordance with the General Plan would generate additional solid waste, placing an increased demand on solid waste disposal services and ultimately requiring disposal at a landfill. The Antelope Valley Public Landfill has a remaining estimated capacity of approximately 46 percent (2,978,143 CY) and the Lancaster Landfill and Recycling Center has a remaining estimated capacity of approximately 72 percent (approximately 19.1 million CY). Solid waste generation from approved and foreseeable cumulative projects in the City would exacerbate landfill capacity issues in the future. That is, any additional solid waste
incrementally added to existing facilities would shorten the amount of time until they reach maximum capacity.

The GPEIR concluded solid waste generation for General Plan buildout is estimated 3,562 TPD (approximately 1.3 million TPY). The GPEIR also concluded that there should be adequate capacity to dispose of the City's generated waste and if the City's recycling programs are successful, only 1,781 TPD (650,065 TPY) would be disposed in landfills at buildout. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project's impact involving solid waste is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the City buildout analysis presented in the GPEIR and would result in no greater impacts involving solid waste than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project's long-term cumulative impact related to solid waste. Additionally, implementation of source reduction measures would be required on a project-by-project basis and plans such as those for recycling would partially address landfill capacity issues by diverting additional solid waste at the source of generation. Continued compliance with the SWMP (including the SRRE and HHWE) and General Plan Policies would ensure that the cumulative impacts to the landfill capacities are minimized. Therefore, the project's contribution to these impacts would not be cumulatively considerable and cumulative impacts involving solid waste within the City would be less than significant.

Future development within the City would be required to comply with all applicable Federal, State, and local statutes and regulations related to solid waste. This includes compliance with AB 939, which requires a 50 percent diversion of all solid waste from disposal in local landfills. There is no cumulative impact related to compliance with applicable regulations.

**Mitigation Programs:**

- **GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

- **Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

**5.17.7 SIGNIFICANT UNAVOIDABLE IMPACTS**

No significant unavoidable impacts associated with solid waste would occur as a result of project implementation.
5.18 Electricity and Natural Gas
5.18 ELECTRICITY AND NATURAL GAS

5.18.1 INTRODUCTION

This section addresses the potential electricity and natural gas consumption impacts associated with implementation of the proposed Expansion Area Amendment. The analysis identifies the utility companies that provide electricity and natural gas to the City of Palmdale and estimates electricity and natural gas demands of the Expansion Area at buildout. Mitigation measures to avoid or reduce the significance of impacts are provided, as necessary. This analysis is based on information provided by Southern California Edison (SCE) and by the Southern California Gas Company (SCGC).

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts associated with electricity and natural gas resulting from full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.11 (Public Utilities) (pages 4-171 through 4-216). The GPEIR concluded the anticipated increase in residential and nonresidential development would substantially increase power usage. A total of 6,731.9 million kilowatt hours per year would be consumed at General Plan buildout. The GPEIR concluded that impacts on electrical facilities would not be significant; however, impacts resulting from increased power usage on nonrenewable power sources would be considered significant. Implementation of General Plan policies and programs would reduce the impact on electricity services to a less than significant level.

The GPEIR concluded development under the proposed Land Use Plan would increase natural gas consumption because of the increase in dwelling units and building square footage. A total of 35,808 million cubic feet per year of natural gas would be consumed at General Plan buildout. The GPEIR also concluded General Plan policies and programs would reduce impacts on the provision of natural gas service and the supply of natural gas to less than significant levels.

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1 City of Palmdale, Final Program EIR for the City of Palmdale General Plan, February 1, 1993, Page 4-205 and Page 5-6.
2 Ibid., Page 4-209 and Page 5-7.
5.18.2 EXISTING CONDITIONS

Existing electricity and natural gas facilities and demand conditions are based on existing (2010) on the ground development conditions within the proposed Expansion Area.

ELECTRICITY

Electrical Facilities

SCE provides electricity for the Expansion Area (and City of Palmdale). SCE provides electricity to approximately 13 million people, 430 cities and communities in 50,000 square miles of service area, encompassing eleven counties in central, coastal and southern California, excluding the City of Los Angeles and certain other cities.

SCE maintains and operates the transmission and distribution infrastructure necessary to provide electricity to end users within the project area and throughout its entire service area. At present, the Expansion Area is served by a network of utilities and service systems, including electrical. However, portions of the Expansion Area may presently be inadequately served with respect to electrical facilities and systems.

The proposed boundaries of the Expansion Area include the 632-acre area located south of Avenue M and east of Sierra Highway, formerly designated as the Palmdale Business Park Specific Plan (PBPSP). The 377-acre proposed Palmdale Hybrid Power Plant (“Power Plant”) project site is located within the former PBPSP area. The City is seeking approval of a permit from the California Energy Commission to construct and operate the Power Plant. The Power Plant project involves a 570-megawatt electric generating facility that combines clean burning natural gas-fired turbines with state-of-the-art renewable solar equipment. As discussed in Section 3.1, Project Location and Setting, environmental review and approval of the Power Plant project are not included as part of the proposed Expansion Area Amendment.

Electrical Demand

Table 5.18-1, Expansion Area Existing Electrical Demand, provides an estimate of the Expansion Area’s existing electrical demand. The electrical demand associated with the Expansion Area’s existing land uses is approximately 105 million kilowatt-hours per year (kwh/yr); refer to Table 5.18-1.
Table 5.18-1
Expansion Area Existing Electrical Demand

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Electricity Demand Rate¹ (kwh/du/yr or kwh/sf/yr)²</th>
<th>Existing Conditions</th>
<th>Electricity Demand (kwh/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DU</td>
<td>Square Feet</td>
<td></td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>6,081</td>
<td>3,419</td>
<td>20,790,939</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>6,081</td>
<td>1,428</td>
<td>8,683,668</td>
</tr>
<tr>
<td><strong>Subtotal Residential</strong></td>
<td></td>
<td></td>
<td>4,847</td>
</tr>
<tr>
<td>Commercial</td>
<td>8.8</td>
<td>160,213</td>
<td>1,409,874</td>
</tr>
<tr>
<td>Industrial</td>
<td>8.8</td>
<td>483,273</td>
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<td>Institutional</td>
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<td>107,847</td>
<td>3,688,367</td>
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<tr>
<td>Plant 42</td>
<td>8.8</td>
<td>7,063,508</td>
<td>62,158,870</td>
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<tr>
<td>Public Facility</td>
<td>34.2</td>
<td>7,500</td>
<td>256,500</td>
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<tr>
<td>Schools</td>
<td>23.1</td>
<td>163,694</td>
<td>3,781,331</td>
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<td><strong>Subtotal Non-Residential</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>7,986,035</td>
</tr>
</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 3-33 (Average Annual Electric Energy Usage) and Table 4-20 (Projected Power Consumption at Buildout), February 1, 1993.
2. kwh/du/yr = Kilowatt-Hours per Dwelling Unit per Day; and kwh/sf/yr = Kilowatt-Hours per Square Foot per Day.

NATURAL GAS

Natural Gas Supplies

The City lies entirely within the SCGC utility service territory. SCGC is the nation's largest natural gas distribution utility, serving approximately 19.8 million consumers through 5.6 million gas meters in more than 500 communities. SCGC’s service area encompasses 20,000 square miles throughout most of Central and Southern California, from Visalia to the Mexican border. SCGC fuels approximately one-half of all the energy use in its service area (non-transportation-related).

The amount of gas used by SCGC customers fluctuates greatly, depending on the season, day, and even hour. To balance gas supplies with customer demands, some of the gas flowing through the SCGC’s pipeline network is diverted into four underground natural gas storage fields.

SCGC’s total storage capacity is approximately 122.1 billion cubic feet (Bcf) of gas. That is enough to meet the needs of its core residential and business customers for approximately 20 weeks during the non-winter months, or 13 weeks during the winter, before being depleted. These subterranean rock formations, which are natural underground traps, can be repeatedly refilled and drawn from to meet the changing needs of customers. For example, when suppliers cannot deliver enough natural gas to meet heavy demand (usually during the winter) SCGC withdraws gas from its underground storage fields to supplement supplies. When gas usage drops (typically during the summer) SCGC injects the surplus gas into underground reservoirs.
Of SCGC’s total storage capacity of approximately 122.1 Bcf, 70 Bcf is used by SCGC core residential, small industrial, and commercial customers, and about 5 Bcf is used for system balancing. The remaining capacity is available for use by SCGC large industrial customers to balance and meet their gas supply requirements.

According to the California Energy Commission, SCGC is expected to provide 801.6 Bcf of natural gas to its customers in 2008. By 2010, annual natural gas deliveries to SCGC customers are expected to increase to 859.0 Bcf.

**Natural Gas Facilities**

SCGC provides natural gas to residents and businesses throughout the Expansion Area (and City). SCGC facilities located within the Expansion Area include medium pressure mains (pipelines) that feed from high pressure lines through pressure regulating stations. Medium pressure mains and services in the public streets feed private residents and businesses. The majority of public streets in the Expansion Area have existing steel or plastic medium pressure distribution mains that feed individual service lines. However, portions of the Expansion Area may presently be inadequately served with respect to natural gas facilities and systems.

**Natural Gas Demand**

The natural gas demand associated with the existing land uses is approximately 655 million cubic feet per year (cfy); refer to Table 5.18-2, *Existing Natural Gas Demand*.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Natural Gas Demand Rate1</th>
<th>Existing Conditions</th>
<th>Natural Gas Demand (cfy/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(cf/du/mo or cf/sf/mo)2</td>
<td>DU</td>
<td>Square Feet</td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>6,665</td>
<td>3,419</td>
<td></td>
</tr>
<tr>
<td>High Density Residential</td>
<td>4,105</td>
<td>1,428</td>
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<tr>
<td>Subtotal Residential</td>
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<td>2.90</td>
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<td>160,213</td>
</tr>
<tr>
<td>Industrial</td>
<td>3.30</td>
<td></td>
<td>483,273</td>
</tr>
<tr>
<td>Institutional</td>
<td>2.00</td>
<td></td>
<td>107,847</td>
</tr>
<tr>
<td>Plant 42</td>
<td>3.30</td>
<td></td>
<td>7,063,508</td>
</tr>
<tr>
<td>Public Facility</td>
<td>2.00</td>
<td></td>
<td>7,500</td>
</tr>
<tr>
<td>Schools</td>
<td>2.00</td>
<td></td>
<td>163,694</td>
</tr>
<tr>
<td>Subtotal Non-Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>7,986,035</td>
</tr>
</tbody>
</table>

1. City of Palmdale, *Final Program EIR for the City of Palmdale General Plan Table 3-34 (Natural Gas Consumption Factors)*, February 1, 1993.
2. Cf/du/mo = Cubic Feet per Dwelling Unit per Month; and cf/sf/mo = Cubic Feet per Square Foot per Month.
5.18.3  REGULATORY FRAMEWORK

CALIFORNIA CODE OF REGULATIONS TITLE 24

Energy consumption from new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR). New buildings are required to conform to energy conservation standards that regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The standards also establish "energy budgets" for different types of residential and nonresidential buildings, with which all new buildings must comply. The energy budgets include space-conditioning and water-heating components, both expressed in terms of energy (BTU) consumed per year. The regulations allow for trade-offs within and between the components to meet the overall budget. The building efficiency standards are enforced through the local building or individual agency permit and approval processes.

5.18.4  SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to electric power and natural gas systems. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in a need for new, or substantial alterations to the power or natural gas systems.

Based on this significance threshold and criteria, the Project’s effects have been categorized as either “effects found not to be significant” or “potentially significant impact.” Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.18.5  IMPACTS AND MITIGATION MEASURES

ELECTRICITY

Thresholds:  Would the project result in a need for new or substantial alterations to the power or natural gas systems?

Impact Analysis:  The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area,
development within the proposed Expansion Area could result in an additional in 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Project implementation would facilitate the installation and construction of public improvements, facilities, and utilities necessary to carry out the Redevelopment Plan, including electrical facilities and systems, among others. Additionally, buildout of the proposed Expansion Area in accordance with the General Plan would increase the area’s electrical demand, in particular, the electrical demand associated with light, heat, and air condition for the future residential and non-residential developments. The electrical demand at buildout of the proposed Expansion Area would be approximately 284 million kwh/yr; refer to Table 5.18-3, **Expansion Area Buildout Electrical Demand**. This represents an increase of approximately 171 percent (approximately 179 million kwh/yr) over the area’s existing electrical demand.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Electricity Demand Rate¹ (kwh/du/yr or kwh/sf/yr²)</th>
<th>Future Conditions</th>
<th>Electricity Demand (kwh/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DU</td>
<td>Square Feet</td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>6,081</td>
<td>3,760</td>
<td></td>
</tr>
<tr>
<td>High Density Residential</td>
<td>6,081</td>
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</tr>
<tr>
<td>Subtotal Residential</td>
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<td>6,579</td>
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<td></td>
<td>1,281,421</td>
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<tr>
<td>Industrial</td>
<td>8.8</td>
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<td>17,126,014</td>
</tr>
<tr>
<td>Institutional</td>
<td>34.2</td>
<td></td>
<td>107,847</td>
</tr>
<tr>
<td>Plant 42</td>
<td>8.8</td>
<td></td>
<td>8,063,508</td>
</tr>
<tr>
<td>Public Facility</td>
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<td>110,519</td>
</tr>
<tr>
<td>Schools</td>
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<tr>
<td>Subtotal Non-Residential</td>
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<td></td>
<td></td>
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<tr>
<td>Total Existing²</td>
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<tr>
<td>Total Over Existing</td>
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<td></td>
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</tr>
<tr>
<td>Total % Over Existing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 3-33 (Average Annual Electric Energy Usage) and Table 4-20 (Projected Power Consumption at Buildout), February 1, 1993.
2. Kwh/du/yr = Kilowatt-Hours per Dwelling Unit per Year; and kwh/sf/yr = Kilowatt-Hours per Square Foot per Year.
3. Refer to Table 5.18-1, **Expansion Area Existing Electricity Demand**.

The state is currently experiencing constraints related to electrical supply and delivery, which are generally limited to peak demand days during the summer months. For the majority of the days during the year, adequate electrical supplies are reliably provided to consumers. On peak days, the increase in electrical demand from buildout of the Expansion Area in accordance with the General Plan would contribute to electrical supply and delivery constraints. However, all future development would be constructed in compliance with Title 24 energy efficiency standards. Additionally, buildout of the proposed Expansion Area in accordance with the General Plan would occur over time.
SCE would maintain and operate the transmission and distribution infrastructure located throughout the Expansion Area necessary to serve future development projects in accordance with the General Plan. SCE would upgrade existing facilities or add new facilities in the area, based upon specific requests for service from end users. Any proposed use would be reviewed on a case-by-case basis by SCE’s Operating Department. Financial responsibility for any upgrades or additional facilities would be in accordance with SCE’s rules and tariffs. All new developments that require new electricity lines would be required to pay applicable fees assessed by SCE to extend electricity lines to serve the specific project site. SCE would not provide service to new developments if there were not adequate electricity supplies and infrastructure to maintain existing service levels and meet the anticipated electrical demands of the specific development requesting service. Prior to the issuance of grading permits, the project developer would coordinate with SCE to determine the exact location of all underground and overhead electrical facilities. Grading plans would be required to reflect the undergrounding of utility lines serving the future projects. Buildout of the proposed Expansion Area in accordance with the General Plan would not have a significant impact on SCE’s capacity to provide electrical power services to the area. SCE anticipates its ability to provide electrical power to the project area, sufficient to meet electrical power demand through Expansion Area buildout.

Additionally, it is the City’s goal (Goal PS1) to ensure that adequate public services and facilities are available to support development in an efficient and orderly manner. To this end, the City would ensure that all new development in the Expansion Area in accordance with the General Plan would:

- Provide for the infrastructure and public services needed to support it (Objective PS1.1);
- Be coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost efficient construction and maintenance, and ease of access to facilities (Objective PS1.2); and
- Include utilities to serve development in an efficient and aesthetic manner (Objective PS1.6).

All future development would be subject to compliance with the General Plan Policies outlined below, in furtherance of these City Goal and Objectives. Implementation of General Plan policies and programs would reduce the impact on electricity services to a less than significant level.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

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Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Policy PS1.6.1: Through adoption of an ordinance, regulate utility line and other utility infrastructure placement and require undergrounding where feasible.

Policy PS1.6.2: Coordinate installation of utility line placement with street construction where possible, to minimize cost.

Policy PS1.6.3: Through the development review process, protect existing utility easements and require dedication of additional easements where needed.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
NATURAL GAS

Thresholds:  Would the project result in a need for new or substantial alterations to the power or natural gas systems?

Impact Analysis:  Implementation of the proposed Expansion Area Amendment would facilitate the installation and construction of public improvements, facilities, and utilities necessary to carry out the Redevelopment Plan, including natural gas facilities and systems, among others.  Additionally, buildout of the Expansion Area in accordance with the General Plan would increase the area’s natural gas demand, in order to heat the residential and non-residential developments.  The natural gas demand at buildout of the proposed Expansion Area would be approximately 1,087 million cfy; refer to Table 5.18-4, Expansion Area Buildout Natural Gas Demand.  This represents an increase of approximately 66 percent (approximately 433 million cfy) over the area’s existing natural gas demands of approximately 655 million cfy.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Natural Gas Demand Rate¹ (cf/du/mo or cf/sf/mo)²</th>
<th>Future Conditions</th>
<th>Natural Gas Demand (cf/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DU</td>
<td>Square Feet</td>
<td></td>
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<tr>
<td>Low Density Residential</td>
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<td>110,519</td>
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<td>Schools</td>
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<td>Subtotal Non-Residential</td>
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<tr>
<td>Total % Over Existing</td>
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<td></td>
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</tbody>
</table>

1. City of Palmdale, Final Program EIR for the City of Palmdale General Plan Table 3-34 (Natural Gas Consumption Factors), February 1, 1993.
2. Cf/du/mo = Cubic Feet per Dwelling Unit per Month; and cf/sf/mo = Cubic Feet per Square Foot per Month.
3. Refer to Table 5.18-3, Expansion Area Existing Natural Gas Demand.
SCGC declares itself a “reactive” utility and would provide natural gas as customers request its services. An adequate supply of natural gas is currently available to serve additional development, and that the natural gas level of service provided to the City would not be impaired by buildout of the proposed Expansion Area in accordance with the General Plan. All future development would be constructed in compliance with Title 24 energy efficiency standards. Additionally, development within the proposed Expansion Area would occur over time.

Although buildout of the proposed Expansion Area in accordance with the General Plan would result in increases in natural gas demand as noted above, an adequate supply is anticipated to be available, as the gas supplies and infrastructure to support demand are provided as needed by SCGC. SCGC would not provide service to new developments if there were not adequate natural gas supplies and infrastructure to maintain existing service levels and meet the anticipated natural gas demands of the specific development requesting service. Therefore, buildout of the proposed Expansion Area in accordance with the General Plan would not substantially increase demands beyond the available supply.

SCGC would maintain and operate the transmission and distribution infrastructure located throughout the Expansion Area necessary to serve future development projects in accordance with the General Plan. SCGC would upgrade existing facilities or add new facilities in the Expansion Area, based upon specific requests for service from end users. The developer would be required to make contractual arrangements with SCGC prior to initiation of construction for the gas lines. All new developments that require new natural gas lines would be required to pay applicable fees assessed by SCGC to extend natural gas lines to serve the specific project site. Prior to the issuance of grading permits, the project developer would coordinate with SCGC to determine exact location of all underground natural gas facilities. Buildout of the proposed Expansion Area in accordance with the General Plan would not have a significant impact on SCGC’s capacity to provide natural gas services to the area.

Additionally, it is the City’s goal (Goal PS1) to ensure that adequate public services and facilities are available to support development in an efficient and orderly manner. To this end, the City would ensure that all new development in the Expansion Area would be in furtherance of Objectives PS1.1, PS1.2, and PS1.6. Additionally, all future development would be subject to compliance with the General Plan Policies outlined above, in furtherance of these City Goal and Objectives. Implementation of General Plan policies and programs would reduce the impact on natural gas services to a less than significant level.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to Policies PS1.1.1, PS1.1.2, PS1.1.3, PS1.1.4, PS1.2.1, PS1.2.3, PS1.2.4, PS1.2.5, PS1.2.8, PS1.6.1, PS1.6.2, PS1.6.3 outlined above.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
5.18.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

ELECTRICITY

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT ELECTRICAL SUPPLIES AND SYSTEMS.

Impact Analysis: The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to electricity is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-16. The analysis concluded that cumulative impacts associated with increased electricity demand with development buildout under the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

Buildout of the proposed Expansion Area in accordance with the General Plan, in combination with all other development within the City and region, would result in the permanent and continued use of electrical resources. However, as SCE is a reactive provider, which supplies electrical services to customers at their request, it is assumed that SCE would be able to service future developments within the proposed Expansion Area in combination with all projected future developments within the City and region. SCE maintains and operates the transmission and distribution infrastructure necessary to provide electricity to end users throughout its entire service area.

Buildout of the proposed Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s electrical demand is based upon the development permitted by the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to electrical supplies and systems than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to electricity supplies and systems. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts to SCE’s electrical demands and systems within the City would be less than significant.

Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.
**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

### NATURAL GAS

- **BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT NATURAL GAS SUPPLIES AND SYSTEMS.**

**Impact Analysis:** The GPEIR included the evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to natural gas is presented in GPEIR Section 8.8 (Cumulative Impacts) on page 8-17. The analysis concluded that cumulative impacts associated with increased natural gas demand with development buildout under the General Plan and related projects would be reduced to a less than significant level with implementation of mitigation.

Buildout of the proposed Expansion Area in accordance with the General Plan, in combination with all other development within the City would result in the permanent and continued use of natural gas resources. However, as SCGC is a reactive provider, which supplies natural gas services to customers at their request, it is assumed that SCGC would be able to service future developments within the proposed Expansion Area in combination with all projected future developments within the City. SCGC maintains and operates the transmission and distribution infrastructure necessary to provide natural gas to end users throughout its entire service area.

Buildout of the proposed Expansion Area was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project’s natural gas demand is based upon the development permitted by the Land Use Plan. Implementation of the proposed project would be consistent with the analysis presented in the GPEIR and would result in no greater impacts to natural gas supplies and systems than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project’s long-term cumulative impact related to natural gas supplies and systems. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts involving natural gas demands and systems would be less than significant.

**Mitigation Programs:**

- **GPEIR Mitigation Measures and Policies:** Refer to the GPEIR Mitigation Measures and Policies outlined above.

- **Project Mitigation Measures:** No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

**Level of Significance:** Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
5.18.7 **SIGNIFICANT UNAVOIDABLE IMPACTS**

No significant unavoidable impacts involving electricity or natural gas would occur as a result of project implementation.
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5.19 Communications Systems
5.19 COMMUNICATION SYSTEMS

5.19.1 INTRODUCTION

This section addresses the potential communication (telephone and cable) system impacts associated with implementation of the proposed Expansion Area Amendment. The analysis identifies the utility companies that provide communication services to the Expansion Area and addresses future demands from the Expansion Area at buildout. Mitigation measures to avoid or reduce the significance of impacts are provided, as necessary. This analysis is based on information provided by AT&T and Time Warner Cable.

Development activities within the proposed Expansion Area have been slower than anticipated in the GPEIR, which was prepared in 1993. Areas within the proposed Expansion Area identified as vacant land within the GPEIR have predominantly remained vacant. Additionally, the Expansion Area’s urbanized areas remain relatively unchanged. The GPEIR analyzed the potential impacts associated with buildout of the City, including the proposed Expansion Area, in accordance with the General Plan Land Use Plan. Potential development over existing conditions within the proposed Expansion Area is anticipated to occur on vacant and underutilized sites in accordance with the current General Plan Land Use Element and Zoning designations. Thus, due to the relatively unchanged conditions within the proposed Expansion Area, baseline conditions and analysis determinations identified in the GPEIR remain applicable to the proposed project.

Potential impacts involving communication systems as a result of full implementation of the Palmdale General Plan were evaluated in GPEIR Section 4.2.11 (Public Utilities) (pages 4-210 through 4-213). The GPEIR concluded the new land uses designated by the General Plan would alter estimated call loads in residential and industrial areas at buildout and the installation of additional telephone lines and facilities would be required. Additionally, the GPEIR concluded the land use plan would result in increased demand for cable services, as well as modifying the areas where cable demand may occur. Impacts of General Plan implementation on communication services (telephone and cable) are considered less than significant.

5.19.2 EXISTING CONDITIONS

AT&T Inc. provides fixed telephony service to the Expansion Area (and City). AT&T is the nation’s largest provider of fixed telephony and the second largest provider of mobile telephony service. They also provide broadband and subscription television services. It is noted, an AT&T Transcontinental Fiber Optic Cable (i.e., Mojave-Los Angeles FTA Cable) traverses the northwestern portion of the project area, within the Sierra Highway and Blackbird Drive right-of-ways.¹

Time Warner Cable provides cable television service within the Expansion Area (and City). They provide high-definition television, enhanced television features, and high-speed data and digital telephone services.

¹ Written Correspondence: Ms. Rosemary Hamill, Cable Maintenance Engineer, AT&T, October 20, 2010.
At present, the Expansion Area is served by a network of utilities and service systems, including communication (telephone and cable). However, portions of the Expansion Area may presently be inadequately served with respect to communication facilities and systems.

5.19.3 REGULATORY FRAMEWORK

The California Public Utilities Commission (CPUC) is a state Public Utilities Commission that regulates privately-owned utilities in the state of California, including telecommunications companies, among others. The CPUC serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service, and infrastructure at reasonable rates.

5.19.4 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist adopted by the City of Palmdale in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to communication systems (i.e., telephone and cable services). The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Result in a need for new or substantial alterations to the communication systems.

Based on these significance thresholds and criteria, the Project’s effects have been categorized as either “effects found not to be significant” or “potentially significant impact.” Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.19.5 IMPACTS AND MITIGATION MEASURES

COMMUNICATION SERVICES

Thresholds: Would the project result in a need for new, or substantial alterations to the communication services?

Impact Analysis: The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Permitted land uses within the proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the proposed Expansion Area, development within the Expansion Area could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.
The Expansion Area’s communication (telephone and cable) services would be impacted through increased demands for service and need for new facilities. Additionally, as previously noted, the Mojave-Los Angeles FTA Cable traverses the northwestern portion of the project area, within the Sierra Highway and Blackbird Drive right-of-ways. AT&T has communicated there would be a potential conflict with this cable, for future developments involving these locations.2

The communication services providers would maintain and operate the communications infrastructure located throughout the Expansion Area necessary to serve future development projects associated with buildout of the Expansion Area. These providers would upgrade existing facilities or add new facilities in the area, based upon specific requests for service from end users. Additionally, given the Mojave-Los Angeles FTA Cable traverses the northwestern portion of the project area, AT&T would review project specific engineering drawings for projects located in the cable’s vicinity, in order to ensure the safety and maintenance of AT&T facilities. Project implementation would facilitate the installation and construction of public improvements, facilities, and utilities necessary to carry out the Redevelopment Plan, including communication (i.e., telephone and cable) facilities and systems, among others. The proposed project would not have a significant impact on the communication service companies’ capacity to provide communication services to the area.

Additionally, it is the City’s goal (Goal PS1) to ensure that adequate public services and facilities are available to support development in an efficient and orderly manner. To this end, the City would ensure that all new development in the Expansion Area would:

- Provide for the infrastructure and public services needed to support it (Objective PS1.1);
- Be coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost efficient construction and maintenance, and ease of access to facilities (Objective PS1.2); and
- Include utilities to serve development in an efficient and aesthetic manner (Objective PS1.6).

All future development would be subject to compliance with the General Plan Policies outlined below, in furtherance of these City Goal and Objectives.

**Mitigation Programs:**

**GPEIR Mitigation Measures and Policies:**

**Policy PS1.1.1:** Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

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2 Ibid.
Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permit economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Policy PS1.6.1: Through adoption of an ordinance, regulate utility line and other utility infrastructure placement and require undergrounding where feasible.

Policy PS1.6.2: Coordinate installation of utility line placement with street construction where possible, to minimize cost.

Policy PS1.6.3: Through the development review process, protect existing utility easements and require dedication of additional easements where needed.

Project Mitigation Measures: No project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.
5.19.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- BUILDOUT OF THE EXPANSION AREA IN ACCORDANCE WITH THE GENERAL PLAN AND OTHER RELATED DEVELOPMENT THROUGHOUT THE CITY COULD CUMULATIVELY IMPACT COMMUNICATION SYSTEMS.

Impact Analysis: The GPEIR included an evaluation of potential environmental impacts associated with buildout of the proposed Expansion Area in conjunction with buildout of the City, as well as regional development associated with its neighboring city and unincorporated areas. The cumulative impact analysis pertaining to communication systems is presented in GPEIR Section 8.8 (Cumulative Impacts) on pages 8-17 and 8-18. The analysis concluded the demand for telephone and cable services will be relative to the rate of development in the Antelope Valley. Additional lines and facility improvements will need to be made to the service area and will be added as needed. Cumulative demand is not expected to have significant impacts on telephone and cable services or facilities.

Buildout of the Expansion Area in accordance with the General Plan, in combination with all other development within the City, would increase the demand for communication services and facilities. It is assumed the communication services providers would be able to service future developments under the proposed Expansion Area Amendment in combination with all projected future developments within the City. The providers maintain and operate the transmission and distribution infrastructure necessary to provide communication services to end users throughout the City.

The GPEIR concluded the new land uses designated by the General Plan would alter estimated call loads in residential and industrial areas at buildout and the installation of additional telephone lines and facilities would be required. Additionally, the GPEIR concluded the land use plan would result in increased demand for cable services, as well as modifying the areas where cable demand may occur. Impacts of General Plan implementation on communication services (telephone and cable) are considered less than significant. Buildout of the Expansion Area in accordance with the General Plan was considered in the GPEIR analysis, since additional development within the area was assumed consistent with the Land Use Plan, and the project's impact on telephone and cable services/facilities is based upon the development permitted by the Land Use Plan. Project implementation would be consistent with the City buildout analysis presented in the GPEIR and would result in no greater impacts to telephone and cable services/facilities than previously identified. The buildout analysis presented in the GPEIR adequately addresses the project's long-term cumulative impact related to telephone and cable services/facilities. All future development within the City would be subject to compliance with the General Plan Policies outlined above, which would further minimize impacts to telephone and cable services/facilities. Therefore, the project's contribution to these impacts would not be cumulatively considerable and cumulative impacts to telephone and cable services/facilities within the City would be less than significant.
Mitigation Programs:

GPEIR Mitigation Measures and Policies: Refer to the GPEIR Mitigation Measures and Policies outlined above.

Project Mitigation Measures: No additional project mitigation measures are required beyond compliance with the GPEIR Mitigation Measures and Policies outlined above.

Level of Significance: Less Than Significant Impact With GPEIR Mitigation Measures and Policies Incorporated.

5.19.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts to communication services would occur as a result of project implementation.
6.0 Alternatives
6.0 ALTERNATIVES

6.1 INTRODUCTION

CEQA requires EIIs to discuss a range of reasonable alternatives to a project, or to the project location, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6(a)).

This section describes alternatives that satisfy these two criteria, i.e., alternatives which both: (a) attain most of the project's basic objectives; and (b) lessen the project's potentially significant environmental effects. Pursuant to Section 15126.6 (f)(1) of the CEQA Guidelines, among the factors that may be taken into account when addressing the feasibility of alternatives are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." Although these factors do not present a strict limit on the scope of reasonable alternatives to be considered, they help establish the context against which "the rule of reason" is measured when determining an appropriate range of alternatives sufficient to establish and foster meaningful public participation and informed decision-making.

6.1.1 ALTERNATIVES TO BE ANALYZED

The analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the Proposed Project objectives. The following alternatives have been identified for analysis in this section:

- **No Project Alternative.** Under this Alternative, the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area would not be adopted or proceed. This Alternative serves as the “No Project” Alternative in accordance with CEQA Guidelines Section 15126.6(e).

- **Reduced Development Alternative.** Under this Alternative, the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area would be adopted; however, this Alternative assumes that development of the proposed Expansion Area would not occur in accordance with the buildout potential identified by the General Plan. This Alternative anticipates that future residential and non-residential development, with the exception of uses associated with Plant 42, would occur at lower densities and intensities, consistent with historical development trends. The Reduced Development Alternative would involve the following:
  - 835 additional residential units; and
  - 15,651,385 additional square feet of non-residential uses.
When compared to the proposed project, this Alternative would involve the following:

- 897 fewer residential units; and
- 3,220,707 fewer square feet of non-residential uses.

Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. The proposed project would result in significant and unavoidable impacts in the following environmental issue areas:

- **Air Quality**
  - **Short-Term Construction**
    - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?
  - **Long-Term Operational**
    - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?
    - Would the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?
  - **Cumulative Short-Term Construction and Long-Term Operational**
    - Would the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?
    - Would the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?

- **Greenhouse Gas Emissions**
  - **Greenhouse Gas Emissions**
    - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
  - **Consistency With Applicable GHG Plans, Policies or Regulations**
    - Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
  - **Cumulative Greenhouse Gas Emissions and Consistency With Applicable GHG Plans, Policies or Regulations**
    - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
    - Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

- **Water**
  - **Water Supply and Demand**
    - Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?
    - Will the proposal result in a need for new water systems, or substantial alterations to water supply?
- Cumulative Water Supply and Demand
  - Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?
  - Will the proposal result in a need for new water systems, or substantial alterations to water supply?

An EIR must identify an “environmentally superior” alternative and, where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative’s environmental impacts are compared to the proposed project and determined to be environmentally superior, inferior, or neutral. However, only those impacts found to be significant and unavoidable for the proposed project are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project.

### 6.1.2 CRA PROJECT OBJECTIVES

The following goals and objectives have been established by the proposed Amended and Restated Redevelopment Plan for the Merged Project Area:

- To continue to contribute to the revitalization of blighted areas;
- To upgrade and revitalize commercial activity in the Project Area;
- To create a neighborhood shopping focus for surrounding neighborhoods;
- To stabilize and improve conditions in the neighborhoods surrounding the Project Area by expanding, improving and preserving the community’s supply of low and moderate income housing;
- To provide adequate parking and improve circulation in the Project Area and surrounding areas;
- To provide an environment, which stimulates private investment;
- To improve the City’s economic health, tax base and employment opportunities;
- To install, replace, and upgrade public facilities and infrastructure including parks and recreation, public safety improvements, acquisition of easements and public right-of-way, infrastructure assessments/plans, utility improvements, flood control, streetscape, landscaping and noise attenuation;
- To support and encourage cutting-edge, state of the art technology infrastructure development including but not limited to wi-fi, satellite and any other future technologies that may be developed in support of redevelopment, economic development and housing activities;
- To improve transportation infrastructure, including circulation upgrades, grade separation, traffic signals and street improvements;
• To support and encourage development of alternative energy sources;

• To retain, expand and attract businesses by partnering with property owners, tenants and business owners to implement activities such as demolition, clearance and site preparation; relocation assistance, property acquisition and disposition; public and private cooperation, right-of-way acquisition; façade improvements programs; business outreach; Enterprise Zone incentives; Foreign-Trade Zone incentives; and other marketing and business support activities;

• To implement programs and projects to mitigate environmental threats to public health and safety;

• To partner with Plant 42 and the aerospace contractors to address declining and obsolete buildings and hazardous materials and to ensure Plant 42 continues to directly and indirectly create and maintain jobs within the City;

• To promote the construction of the High Desert Corridor, the High Speed Rail, and any other future mass transit project, all for the purpose of expanding economic development opportunities and relieving traffic congestion throughout the region;

• To encourage, support and promote air service at the Palmdale Regional Airport;

• To encourage the provision high-density transit oriented housing and development opportunities through the implementation of the Palmdale Transit Village Specific Plan;

• To develop reliable and cost efficient energy through the Palmdale Power Plant project in order to attract businesses and private investment within the City;

• To provide for the acquisition of land and provision of relocation assistance and payments in support of redevelopment, economic development, and housing activities;

• To provide for the issuance of debt;

• To provide management of property under the ownership and control of the Agency; and

• To provide for the disposition of property for uses in accordance with the Redevelopment Plan.

6.2 NO PROJECT ALTERNATIVE

Implementation of the No Project Alternative assumes that the Community Redevelopment Agency (CRA) would take no action in adding the 7,787-acre Expansion Area to the Merged Project Area. Additionally, the amended and restated Redevelopment Plans and all amendments thereto for Project Area No. 2, Project Area No. 3, and Project Area No. 4 would not be consolidated into a single, Merged, Amended, and Restated Redevelopment Plan. As a result, there would continue to be three separate Redevelopment Plans instead of one Redevelopment Plan for the merged project area, which would enable easier implementation and administration of the merged project area. Under this Alternative, no actions would be
taken by the CRA to remediate blighted conditions and to stimulate private investment in the Expansion Area.

Programs and projects that would provide for public facility and infrastructure improvements, including street and traffic circulation improvements, economic development and infill development activities, environmental remediation and revitalization, affordable housing projects, community/neighborhood beautification, and visual blight removal, would not occur. Tax increment financing would not be available within the proposed Expansion Area to reduce/eliminate blighted factors in residential areas such as dilapidated structures, damaged and substandard exterior building materials, and homes lacking sufficient weatherproofing. The CRA would not purchase or provide loans to property owners to rehabilitate these structures and make them available to very low, low, and moderate income families. The CRA would not be able to assemble vacant parcels and dilapidated buildings for a consolidated affordable housing development that would provide additional housing opportunities. No action would be taken by the CRA to assist in the funding of identified programs and projects.

Under this Alternative, vacant buildings and deteriorated property conditions would continue to plague the Expansion Area and result in reduced commercial activity, increase code violations, and underutilized development potential throughout this part of the City. The Expansion Area would continue to be comprised of dilapidated, outdated, and/or inadequate buildings unable to serve contemporary commercial and industrial uses within the City, including operations at Plant 42. Obsolete buildings, hazardous materials, and inadequate public improvements on Plant 42 would continue, potentially compromising future manufacturing and production operations at the site. The inability for Plant 42 users to maintain manufacturing and production operations at the site would reduce employment opportunities and potentially affect the greater Palmdale economy, which relies on jobs provided at Plant 42.

Residential uses intermixed with commercial and industrial activities would also continue to occur in certain parts of the Expansion Area. Contaminated or potentially contaminated sites would continue to remain in their existing state and incentives used to remediate these sites and prepare them for redevelopment could not occur. Many areas within this part of the City would continue to stagnate as a result of the lack of reinvestment by the CRA to improve infrastructure, assemble parcels for re-use/redevelopment, and provide catalysts to businesses looking to relocate to this part of the region. The CRA’s ability to accomplish these activities under this Alternative would be significantly reduced, which would affect their ability to meet not only the goals of this project, but also the City’s goals and policies identified in the General Plan.

It is anticipated that without additional redevelopment authority and financial mechanisms, existing adverse conditions within the Expansion Area would not be corrected and may further contribute to decline of the area, affecting physical and economic conditions in surrounding areas as well. Further, without CRA activity in the Expansion Area to fund public improvements, private investment in the Expansion Area would continue to be relatively non-existent, as indicated by the lack of development that has occurred within the Expansion Area over the last 20 years. Issues such as lack of needed infrastructure and public improvements and continued lack of investment due to legal non-conforming and illegal non-conforming uses and lack of compliance with current development standards and uniform codes may not be addressed under this Alternative.
It is acknowledged that the proposed project would involve short- and long-term environmental impacts within the Expansion Area. However, as analyzed in this EIR, impacts would be less than significant or less than significant with mitigation with the exception of construction, operational and cumulative construction and operational air quality impacts; greenhouse gas emissions, consistency with applicable GHG plans, policies, or regulations, and cumulative greenhouse gas emissions and consistency with applicable GHG plans, policies, or regulations; and project water supply and demand and cumulative water supply and demand. The construction- and operational-related air quality emissions, greenhouse gas emissions, and water demand within the Expansion Area are related to the amount of development currently allowed by the General Plan. Since potential development within the Expansion Area is consistent with the assumptions of the General Plan, the impacts identified as a result of the proposed project are consistent with impacts previously analyzed in the General Plan EIR. Both the No Project Alternative and proposed project would allow for development buildout in accordance with the General Plan. Therefore, the significant and unavoidable impacts would be similar with the No Project Alternative, as buildout of the area in accordance with the General Plan could also occur with the No Project Alternative.

It is anticipated that the No Project Alternative would result in less growth and economic improvement, resulting in a less viable local economy, less local revenues, less development of existing vacant and underutilized parcels, less commercial, industrial, and residential rehabilitation, less funding for affordable housing, and more constraints upon infrastructure and public improvements. The No Project Alternative would significantly reduce the opportunities for the CRA to eliminate blight and blighting conditions and reduce the ability to implement a comprehensive redevelopment approach to improve the Expansion Area. Although the No Project Alternative would not prohibit or eliminate development activity within the Expansion Area, it is anticipated that existing conditions would continue, which include limited to no private development and investment due to extensive development constraints and blight and blighting conditions that currently occur within the Expansion Area.

### 6.3 REDUCED DEVELOPMENT ALTERNATIVE

Under this Alternative, the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area would be adopted; however, this Alternative anticipates that future residential and non-residential development, with the exception of uses associated with Plant 42, would occur at lower densities and intensities, consistent with historical development trends for the Expansion Area. The Reduced Development Alternative would involve the following:

- 835 additional residential units; and
- 15,651,385 additional square feet of non-residential uses.

Similar to the proposed project, the Reduced Development Alternative would provide programs and projects that would allow for public facility and infrastructure improvements, including street and traffic circulation improvements, economic development and infill development activities, environmental remediation and revitalization, affordable housing projects, community/neighborhood beautification, and visual blight removal. Tax increment financing would be available to reduce/eliminate blighted factors in residential areas such as dilapidated structures, damaged and substandard exterior building materials, and homes lacking sufficient weatherproofing. The CRA would have the ability to purchase or provide loans to property
owners to rehabilitate these structures and make them available to very low, low, and moderate income families. The CRA would also be able to assemble vacant parcels and dilapidated buildings for a consolidated affordable housing development that would provide additional housing opportunities. Further, contaminated or potentially contaminated sites would be remediated and made more accessible for redevelopment to occur. Overall, opportunities for development and private investment, including improvements to Plant 42 to support future manufacturing and production operations at the site would occur.

However, reduced development within the Expansion Area could limit the tax increment available to the CRA to implement needed physical and economic improvements (i.e., rehabilitation and redevelopment of existing properties, new and/or improved infrastructure, public improvements, housing rehabilitation, private development/investment, etc.) within the Expansion Area. When compared to the proposed project, redevelopment activities under the Reduced Development Alternative would be limited since the tax increment created within a redevelopment project area provides the primary revenue source available to fund necessary redevelopment projects within that area.

It is acknowledged that the proposed project would involve short- and long-term environmental impacts within the Project Area. However, as analyzed in this EIR, impacts would be less than significant or less than significant with mitigation with the exception of construction, operational and cumulative construction and operational air quality impacts; greenhouse gas emissions, consistency with applicable GHG plans, policies, or regulations, and cumulative greenhouse gas emissions and consistency with applicable GHG plans, policies, or regulations; and project water supply and demand and cumulative water supply and demand. The construction- and operational-related air quality emissions, greenhouse gas emissions, and water demand within the Expansion Area are related to the amount of development currently allowed by the General Plan. Since potential development within the Expansion Area is consistent with the assumptions of the General Plan, the impacts identified as a result of the proposed project are consistent with impacts previously analyzed in the General Plan EIR. However, the Reduced Development Alternative assumes the full development potential assumed by the General Plan would not be achieved within the proposed Expansion Area. Although the significant unavoidable impacts would not be eliminated with the Reduced Project Alternative, they would be reduced when compared to the proposed project.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 indicates that if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The context of an environmentally superior alternative for this EIR is based on the consideration of several factors including the proposed project’s objectives, as described in Section 3.3, CRA Project Objectives, and earlier in this Section, and the alternative’s ability to fulfill the goals with minimal impacts to the surrounding environment.
The No Project Alternative is not considered environmentally superior to the proposed project. Under this Alternative, no actions would be taken by the CRA to remediate blighted conditions and to stimulate private investment in the Expansion Area. Existing adverse environmental conditions, such as, but not limited to deteriorated and dilapidated structures, contaminated or potentially contaminated sites, and properties that do not meet current development standards or health and safety standards in the uniform codes, in all likelihood would continue to remain in their existing state and will not be corrected or rehabilitated by private owners or investors without the economic development tools of redevelopment. Further, Plant 42 buildings and infrastructure would continue to deteriorate and obsolete buildings, hazardous materials, and inadequate public improvements on Plant 42 would continue to occur, potentially compromising future manufacturing and production operations at the site. Although some development activity could occur within the Expansion Area, the extent of rehabilitation and development within the Expansion Area would be limited due to the lack of needed infrastructure and public improvements that would occur without the proposed project and due to the continued lack of investment based on the existing adverse environmental conditions described previously and otherwise in this EIR and in the Report to Council. Further, the No Project Alternative would reduce the CRA's ability to attain the goals and objectives established for the Redevelopment Plan and would limit its ability to fully implement the goals and policies identified by the City’s General Plan when compared to the proposed project.

The Reduced Development Alternative would adopt the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area; however, this Alternative anticipates that future residential and non-residential development, with the exception of uses associated with Plant 42, would occur at lower densities and intensities, consistent with historical development trends for the Expansion Area. Programs and projects that would provide for public facility and infrastructure improvements, including street and traffic circulation improvements, economic development and infill development activities, environmental remediation and revitalization, affordable housing projects, community/neighborhood beautification, and visual blight removal would occur with this Alternative. The Reduced Development Alternative would also reduce, but not eliminate, the significant unavoidable impacts associated with air quality, greenhouse gas emissions and water supply and demand. Therefore, the Reduced Development Alternative would be considered environmentally superior when compared to the proposed project.

**CONCLUSION**

As discussed above, the primary goal of the proposed project is to promote and facilitate the revitalization, rehabilitation, and redevelopment of the Expansion Area, through the implementation of a comprehensive series of programs and projects that would eliminate blight, increase development/redevelopment in the area, and improve/expand needed infrastructure to support existing and future uses. As noted, impacts associated with the proposed project would be less than significant with mitigation with the exception of construction, operational and cumulative construction and operational air quality impacts; greenhouse gas emissions, consistency with applicable GHG plans, policies, or regulations, and cumulative greenhouse gas emissions and consistency with applicable GHG plans, policies, or regulations; and project water supply and demand and cumulative water supply and demand. The amount of development anticipated within the Expansion Area is based upon the land uses and buildout assumptions in the *General Plan*, therefore, impacts under the No Project Alternative would be similar to the proposed project, and would not reduce or eliminate a significant impact.
associated with the proposed project. The Reduced Development Alternative anticipates less development than assumed by the General Plan buildout assumptions, thus, the significant unavoidable impacts would be reduced, although not completely eliminated. Although the Reduced Development Alternative would not meet the project objectives to the same extent as the proposed project due to the reduced tax increment, the Reduced Development Alternative would generally meet the objectives established by the CRA. Further, the Reduced Development Alternative would reduce, although not eliminate, the significant unavoidable impacts that would occur with the proposed project. Therefore, the Reduced Development Alternative is considered the environmentally superior Alternative.
7.0 Other CEQA Considerations
7.0 OTHER CEQA CONSIDERATIONS

7.1 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area ("Expansion Area"). Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. Development of land uses within the Expansion Area would be pursuant to that permitted by the Palmdale General Plan. Buildout of the Expansion Area in accordance with the General Plan could result in an additional 1,732 dwelling units (DU) and 18.9 million square feet of non-residential land uses; refer to Table 3-2, Expansion Area - Growth Potential Over Existing Conditions.

The installation/replacement of public improvements, facilities, and utilities, as well as future development in accordance with the General Plan, within the Expansion Area would involve a variety of short- and long-term impacts on a local level. During site-specific project grading and construction, portions of surrounding uses may be temporarily impacted by dust and noise. Short-term soil erosion may occur during grading. There may also be an increase in vehicle pollutant emissions caused by grading and construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through mitigation cited in this EIR and through compliance with the Palmdale Municipal Code; refer to Section 5.0, Environmental Analysis.

Buildout of the Expansion Area would create long-term environmental consequences associated with the intensification of existing land uses and development of new land uses. Development associated with buildout and the subsequent long-term effects may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include increased traffic volumes, increased noise from project-related mobile (traffic) and stationary (mechanical and landscaping) sources, incremental increased demands for essential public services and utility/service systems, and increased energy and natural resource consumption. Long-term visual impacts would occur with the alterations to the visual character of portions of the Expansion Area. Incremental degradation of local and regional air quality would also occur as a result of mobile source emissions generated from project-related traffic and stationary source emissions generated from the consumption of propane and electricity.

7.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED WITH THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by a proposed project. Specifically, Section 15126.2(c) states:
Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The environmental effects of the proposed Expansion Area Amendment are discussed in Section 5.0. The predominant existing land use in the project area is Plant 42, encompassing approximately 68 percent (approximately 5,260 acres) of the total area. Residential land uses represent approximately nine percent (approximately 700 acres), while approximately six percent is developed with commercial, industrial, and other non-residential land uses; refer to Table 3-1, Proposed Expansion Area Existing Land Uses. Approximately 16 percent of the Expansion Area (approximately 1,272 acres) is currently vacant. Future development within the Expansion Area is anticipated to occur on vacant land and underutilized land that is suitable for redevelopment. Future development within the Expansion Area would occur in accordance with the Palmdale General Plan. Based upon the existing General Plan land use designations and the remaining vacant and/or underutilized parcels in the Expansion Area, development within the Expansion Area could result in an additional 1,732 residential dwelling units and 18.9 million square feet of non-residential uses.

Buildout of the Expansion Area in accordance with the General Plan would involve new developments/improvements that would entail the commitment of natural resources, energy, land, and human resources. Manpower would also be committed for the development of residential and non-residential uses, and implementation of improvements. Ongoing maintenance and operation of the new developments/improvements would entail a further commitment of energy resources in the form of petroleum products (diesel fuel and gasoline), natural gas, and electricity. Long-term impacts would also result from an increase in vehicular traffic, and the associated air pollutant and noise emissions. This commitment of resources would be a long-term obligation given that, practically speaking, it is impossible to return the land to its original condition once it has been developed. In summary, buildout of the Expansion Area in accordance with the General Plan and implementation of the proposed infrastructure and facility improvements would involve the following irreversible environmental changes:

- Soil erosion associated with grading and construction activities;
- Alteration of the human environment as a consequence of the proposed infrastructure and facility improvements and the development process, which commits land to industrial, business park, Plant 42, residential, and other non-residential land uses, and intensifies land uses within the Expansion Area;
- Increased usage of essential public services and utility/service systems (including fire protection, police protection, water, parks and recreational facilities, schools, natural gas, and electricity) during and after construction of new developments, which would result in temporary and permanent uses of these resources;
• Temporary and permanent commitment of energy and water resources as a result of the construction, long-term operation, and maintenance of new developments, which may be considered a permanent investment;

• Utilization of various new raw materials (such as lumber, sand, and gravel) for construction; and

• Incremental increases in vehicular activity within the Expansion Area, with resultant air pollutant and noise emissions.

7.3 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126(d), Growth Inducing Impact of the Proposed Project, requires that an EIR “discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” The CEQA Guidelines also indicate that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. This section analyzes potential growth-inducing impacts, based on the criteria outlined below, as suggested in the CEQA Guidelines. In general terms, a project may foster spatial, economic, or population growth in a geographic area, if it meets any one of the following criteria:

• Removal of an impediment to growth (e.g., establishment of an essential public service and provision of new access to an area);

• Fostering of economic expansion or growth (e.g., changes in revenue base and employment expansion);

• Fostering of population growth (e.g., construction of additional housing), either directly or indirectly;

• Establishment of a precedent-setting action (e.g., an innovation, a change in zoning and general plan amendment approval); or

• Development of or encroachment on an isolated or adjacent area of open space (being distinct from an in-fill project).

Should a project meet any one of the above-listed criteria, it may be considered growth inducing. The potential growth-inducing impacts resulting from implementation of the proposed Expansion Area Amendment are evaluated below against these criteria.

It is noted that the CEQA Guidelines require an EIR to “discuss the ways” a project could be growth-inducing and to “discuss the characteristics of some projects that may encourage…activities that could significantly affect the environment.” However, the CEQA Guidelines do not require that an EIR predict (or speculate) specifically where such growth would occur, in what form it would occur, or when it would occur. The answers to such questions require speculation, which CEQA discourages; refer to CEQA Guidelines Section 15145, Speculation.
The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area ("Expansion Area"). The Redevelopment Plan does not present a specific plan for development within the project area. Instead, it presents a process and basic framework for presenting and evaluating development proposals, enabling redevelopment, rehabilitation, and revitalization of the project area. Development of land uses within the Expansion Area would be pursuant to that permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or may be amended in the future. The additional projects and programs proposed within the Expansion Area would also involve public facilities, and infrastructure and transportation improvements.

**IMPEDEMENT TO GROWTH**

As discussed in detail in Sections 5.11 through 5.19 and the Initial Study (Appendix A), the Expansion Area is served by essential public services (i.e., police and fire protection, school facilities, parks/recreational facilities, and library services) and a network of utilities and service systems (i.e., water, wastewater, storm drains, electricity, natural gas, communications, roadways, and other infrastructure). However, portions of the Expansion Area may presently be inadequately served, representing an existing impediment to growth in the area. Project implementation would remove this impediment to growth, inasmuch as it would result in the potential installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. More specifically, project implementation would facilitate the installation and construction of public improvements, facilities, and utilities necessary to carry out the Redevelopment Plan, including the following, among others:

- Sewers;
- Storm drains;
- Electrical, natural gas, telephone, and water distribution systems;
- Parks and plazas;
- Playgrounds; and
- Flood control improvements and facilities.

Exhibit “C” (Proposed Public Improvements and Facilities Projects) of the Redevelopment Plan outlines the public projects that may be undertaken within the Expansion Area. Therefore, the proposed project is considered growth-inducing with respect to removing an existing impediment to growth, given it would install/construct public improvements, facilities, and utilities, in order to address existing inadequacies.

It is noted, the increased demands for public services and utility/service systems would not reduce or impair any existing or future levels of public services and utility/service systems, either locally or regionally, as costs for increases in these services and systems would be provided through development impact fees and cooperative agreements between future developments and servicing agencies. Further, future development proposals would be reviewed a project-by-project basis, at the time of proposed construction, to determine the public services and utility/service systems necessary to serve the proposed land uses. Development within the Expansion Area would be pursuant to that permitted by the General Plan and based upon the existing land use designations. Project implementation would not result in the development of unplanned or unforeseen public services and utility/service systems.
Regional access to the project area is provided via the Antelope Valley Freeway (State Route 14 [SR-14]) and local arterials including Palmdale Boulevard, Elizabeth Lake Road, Pearblossom Highway (SR-138), and Sierra Highway. Local access to the project area is provided by an existing roadway network, as described in detail in GPEIR Section 3.9, Transportation and Circulation. Project implementation would facilitate the installation and construction of public transportation improvements within the Expansion Area necessary to carry out the Redevelopment Plan, including over- and under-passes, and street and circulation improvements. However, these improvements would not provide new access to an area, since access to the project area is already provided by an existing roadway network, as illustrated GPEIR Exhibit 3-24 (Existing [Built] Roadway Network). Additionally, the approximately 1,272 acres of vacant lands that exist within the Expansion Area are interspersed throughout. Therefore, the proposed project is not considered growth-inducing with respect to removing an impediment to growth through the provision of new access to an area.

**ECONOMIC GROWTH**

As indicated in Table 5.1-8, Expansion Area Compared to Existing Conditions, future development within the Expansion Area in accordance with the General Plan would increase the City's existing population by approximately four percent (approximately 6,133 persons). The projected population growth is anticipated to increase sales, with resultant increases in the City’s revenue base. Additionally, future development within the Expansion Area in accordance with the General Plan would increase the City's existing non-residential floor area by approximately 18.9 million square feet and employment by approximately 47 percent (approximately 16,563 jobs); refer to Table 5.1-7, Employment Forecast - Expansion Area Amendment. The majority of the employment growth would occur in the Industrial land use category and within Plant 42. Buildout of the Expansion Area would foster economic expansion through changes in the revenue base resulting from population and employment growth. Therefore, buildout of the Expansion Area in accordance with the General Plan is considered growth inducing with respect to economic expansion.

**POPULATION GROWTH**

A project could induce population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). Project implementation would facilitate the installation and construction of public improvements, facilities, and utilities necessary to carry out the Redevelopment Plan, including roadways and other infrastructure, as discussed above; refer to the Impediment to Growth Section above.

Buildout of the Expansion Area in accordance with the General Plan would also involve new homes and businesses, which would induce direct growth in the City’s population. Future development within the Expansion Area would involve the development of approximately 1,732 DU, which would induce direct growth in the City’s population by approximately four percent (approximately 6,133 persons). Buildout of the Expansion Area in accordance with the General Plan would also involve the development of new businesses, with a resultant growth in employment of approximately 47 percent (approximately 16,563 jobs). The potential employment generated by the future development could result in direct growth in the City’s population, because the potential exists for future employees (and their families) to relocate to
the City. As concluded in Section 5.1, Population, Housing, and Employment, estimating the number of the new employees who would relocate to the City would be highly speculative, because many factors influence personal housing location decisions. Therefore, the precise number of new employees who may relocate to the City to fill the newly created positions is unknown. However, as discussed above, future development within the Expansion Area in accordance with the General Plan would increase the City’s existing housing stock by 1,732 DU, which could be occupied by new employees relocating to the City. As previously noted, the population growth associated with these new dwellings is approximately 6,133 persons. Additionally, the 2010 vacancy rates in Palmdale, Lancaster, and Santa Clarita are 7.57 percent (3,528 DU), 8.43 percent (4,188 DU) and 3.16 percent (1,863 DU), respectively.\(^1\) Collectively, these existing vacancies amount to approximately 9,580 DU, which could also be occupied by new employees relocating to the area, with resultant increases in population. Therefore, buildout of the Expansion Area in accordance with the General Plan is considered growth inducing with respect to direct population growth, given it would potentially involve the development of both new homes and businesses.

Potential growth inducing impacts are also assessed based on a project’s consistency with adopted plans that have addressed growth management from a local and regional standpoint. As discussed in Section 5.1, SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts for local Los Angeles County governments, among other counties. SCAG provides population, household, and employment projection estimates in five-year increments from 2005 to 2035.

The development of an additional 1,732 dwellings is anticipated in the Expansion Area, in accordance with the General Plan, resulting in a potential population growth of approximately 6,133 persons. Upon buildout of the Expansion Area, the City’s forecast population would total 158,755 persons. The GPEIR forecasts the City’s housing stock would total 139,205 DU, with a resultant population of 441,280 persons. The GPEIR forecase the City’s housing stock would total 136,934 DU, with a resultant population of 487,485 persons. Population/housing growth within the Expansion Area was considered in both the GPEIR and SOC forecasts, since their forecasts are based on the Land Use Plan and future development within the Expansion Area would occur in accordance with the Land Use Plan. The proposed project does not involve an amendment to the Land Use Plan. Given buildout of the Expansion Area would occur in accordance with the Land Use Plan and the GPEIR/SOC buildout population forecasts would not be exceeded, project implementation would be consistent with GPEIR/SOC growth forecasts.

As indicated in Table 5.1-9, SCAG forecasts the City’s housing stock will increase to 97,929 DU by 2035, with a resultant population of 346,767 persons. Buildout of the Expansion Area was considered in SCAG forecasts, since SCAG forecasts are based on the General Plan and buildout of the Expansion Area would be consistent with GPEIR/SOC growth forecasts (development would occur in accordance with the Land Use Plan and the GPEIR/SOC buildout population forecasts would not be exceeded). Project implementation would not significantly alter subregional or regional growth rates projected by SCAG. Therefore, project

implementation would not result in cumulatively considerable housing, population, and employment impacts.

At the regional level, the emphasis regarding growth has been placed primarily on achieving a balance of employment and housing opportunities within the subregions. This regional concept, referred to as jobs/housing balance, encourages the designation and zoning of sufficient vacant land for residential uses with appropriate standards to ensure adequate housing is available to serve the needs derived from the local employment base. The jobs/housing ratio can be used as the general measure of balance between a community's employment opportunities and the housing needs of its residents. A ratio of 1.0 or greater generally indicates that a City provides adequate employment opportunities, potentially allowing its residents to work within the City. A desirable jobs/housing balance improves regional mobility (traffic), reduces vehicle miles traveled, and improves air quality. Conversely, imbalance between a City’s jobs and housing increases commutes, with resultant increases in traffic volumes and air emissions, and overall reduces the quality of life.

Under existing conditions, the City’s jobs/housing ratio is approximately 0.75, indicating the City is currently housing rich and job poor (insufficient employment opportunities for its residents). Under existing conditions, the City’s jobs/housing ratio is 0.75, indicating the City is currently housing rich and job poor (insufficient employment opportunities for its residents). Buildout of the Expansion Area in accordance with the General Plan would increase the City’s existing employment by approximately 555 percent (110,275 new jobs). Upon buildout of the Expansion Area, the City’s jobs/housing ratio would be approximately 1.1, indicating the City would be able to provide adequate employment opportunities for its residents, potentially allowing them to live as well as work within the City. Future development within the Expansion Area in accordance with the General Plan would provide more employment opportunities for its residents, than are currently provided. As such, the City’s job/housing ratio at buildout of the Expansion Area would improve, when compared to existing conditions. Therefore, development within the proposed Expansion Area would beneficially impact the City’s job/housing balance. Additionally, development within the Expansion Area would provide approximately 9.6 percent more employment in the City than SCAG’s projection of 47,108 jobs (a difference of approximately 4,514 jobs). Therefore, development within the proposed Expansion Area in accordance with the General Plan would induce population and employment growth in the City over existing conditions, which is considered a beneficial impact with respect to the City’s job/housing balance.

**PRECEDENT-SETTING ACTION**

Future development of land uses within the Expansion Area would be pursuant to that permitted by the Palmdale General Plan’s existing land use designations and Zoning Code’s existing zoning districts. No General Plan Amendments or Zone Changes are proposed. Therefore, the proposed project would not be considered growth inducing with respect to establishing a precedent-setting action.

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2 Based on 35,059 jobs and 46,605 DU existing.
3 Based on 51,622 jobs and 48,337 DU at buildout of the Expansion Area.
DEVELOPMENT OR ENCROACHMENT OF OPEN SPACE

There are approximately 1,272 acres of vacant lands that exist within the Expansion Area. None of these lands involve designated open space areas. The vacant lands are interspersed throughout the Expansion Area and their future development would be pursuant to the Palmdale General Plan’s existing land use designations. Similarly, although vacant lands are located north, south, and east of the Expansion Area, these are designated for urban development. Therefore, the proposed project would not be growth-inducing with respect to development or encroachment into an isolated or adjacent area of open space.

Overall, implementation of the proposed Expansion Area Amendment would not be growth-inducing with respect to establishing a precedent-setting action or encroaching into an isolated or adjacent area of open space. Project implementation would, however, be growth-inducing with respect to removing an impediment to growth, and fostering economic expansion and population growth. Population and housing growth within the Expansion Area was considered in the GPEIR/SOC forecasts, since their forecasts are based on the General Plan and future development within the Expansion Area would occur in accordance with the Land Use Plan. The proposed project does not involve an amendment to the Land Use Element (Land Use Plan). Given buildout of the Expansion Area would occur in accordance with the Land Use Plan and the City’s GPEIR/SOC buildout population forecasts would not be exceeded, project implementation would be consistent with GPEIR/SOC growth forecasts. Additionally, the City’s General Plan accounts for the increased growth and proposes policies to reduce potential growth-related impacts associated with the proposed project. Further, the project’s anticipated population growth would occur over a 25-year period, allowing for development of necessary services and infrastructure to accommodate the proposed growth. Therefore, the proposed project would result in less than significant growth inducing impacts.

7.4 ENERGY CONSERVATION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Appendix F requires a description (where relevant) of the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, the California State Legislature adopted Assembly Bill 1575 (AB 1575) in response to the oil crisis of the 1970s.

PROJECT ENERGY CONSUMPTION

Short-Term Construction

In 1994, the U.S. Environmental Protection Agency (EPA) adopted the first set of emission standards (Tier 1) for all new off-road diesel engines greater than 37 kilowatts (kW). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing NOX emissions from these engines by 30 percent. The EPA Tier 2 and Tier 3 standards for off-road diesel engines are projected to further reduce emissions by 60 percent for NOX and 40 percent for particulate matter from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Nonroad Diesel Rule which will cut emissions from off-road diesel engines by more than 90 percent.
Project implementation would result in the installation of new or replacement of existing public improvements, facilities, and utilities within the Expansion Area. The Expansion Area Amendment would not directly result in the construction of any new development projects. However, future development of industrial, business park, and commercial uses within the Expansion Area is anticipated, in accordance with the General Plan.

There are no unusual characteristics of the Expansion Area Amendment that would necessitate the use of construction equipment that is less energy-efficient than at comparable construction sites in the region or State. Therefore, it is expected that construction-related fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than other redevelopment projects.

**Long-Term Operations**

**TRANSPORTATION**

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NHTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). The fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg since 1996. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer’s average fuel economy for the portion of their vehicles produced for sale in the United States.

The Expansion Area Amendment is subject to the General Plan’s Goals and Policies, which encourage land uses and transportation-related improvements, in order to reduce daily vehicle trips and vehicle miles traveled (VMT). The Expansion Area Amendment is not anticipated to result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Additionally, the General Plan provides strategies to improve transit service and overall mobility within the City that would result in a decrease in auto dependency. Future development within the Expansion Area in accordance with the General Plan would increase density and improve the jobs/housing balance, which would increase public transportation patronage. The availability of public transit for area residents and visitors would ensure that the project would not result in the inefficient, wasteful, or unnecessary consumption of transportation energy.

Overall, fuel consumption associated with vehicle trips generated by future development within the Expansion Area would not be considered inefficient, wasteful, or unnecessary in comparison to other projects in the City of Palmdale or in the region.

**ENERGY DEMAND**

California Code of Regulations, Title 24, Part 6, is California’s Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California’s energy consumption, and provide energy efficiency standards for
residential and non-residential buildings. In 2010, the CEC updated Title 24 standards with more stringent requirements. The 2010 Standards are expected to substantially reduce the growth in electricity and natural gas use. Additional savings result from the application of the Standards on building alterations, such as those within Section V (Site Lighting) including Subpart E (Windows), F (Roofs), and S (Mechanical Equipment). These savings are cumulative, increasing as years go by.

The Expansion Area Amendment would not result in any unusual characteristics that would result in excessive long-term operational building energy demand. Future development within the Expansion Area in accordance with the General Plan would be subject to compliance with the City’s General Plan, which includes numerous energy efficiency Goals and Policies.

It is noted, the Expansion Area includes a 632-acre area formerly designated as the Palmdale Business Park Specific Plan (PBPSP), which is now zoned for industrial uses. The 377-acre proposed Palmdale Hybrid Power Plant (“Power Plant”) project is located within the area. The City is seeking approval of a permit from the California Energy Commission to construct and operate the Power Plant. The Power Plant project involves a 570-megawatt electric generating facility that combines clean burning natural gas-fired turbines with state-of-the-art renewable solar equipment. As discussed in Section 3.1, Project Location and Setting, environmental review and approval of the Power Plant project are not included as part of the proposed Expansion Area Amendment project.
8.0 Effects Found Not To Be Significant
8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of Palmdale distributed an Initial Study on September 27, 2010 to determine significant effects of the proposed project. In the course of this evaluation, certain project impacts were found to be less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. In accordance with CEQA Guidelines Section 15128, the following section identifies those impacts determined to be less than significant in the Initial Study. A copy of the Initial Study and the explanation for either the no impact or less than significant conclusions of the following environmental issue areas are included in Appendix A, Initial Study/Notice of Preparation. This section also summarizes which impacts were found to be less than significant in the EIR.

8.1 INITIAL STUDY CONCLUSIONS

The following topical areas were determined to be less than significant in the Initial Study and therefore were not included within Section 5.0 of the Draft EIR.

EARTH

| Thresholds:                                                                 |
|---|---|
| *Does the site contain slopes of 10 percent or greater?*               |
| *Would the project result in any significant modification of major landforms?* |
| *Does the site include areas of landslide risk, or are landslides present on the project site?* |
| *Would the project create slopes, on- or off-site, that could be subject to landslides, mud slides, or erosion?* |

The project area does not contain slopes of 10 percent or greater. GPEIR Exhibit 3-2 characterizes the proposed Expansion Area as having slopes of 15 percent or less. According to the USGS 7.5-Minute Palmdale Quadrangle (1974), the project area contains no major landforms and is relatively flat. Review of General Plan Exhibit LU-4 indicates the project area is not located within an established special study zone involving steep slopes. The project area does not include areas of landslide risk (seismic and general) and landslides are not present on the project site. According to the Seismic Hazard Zone Map Palmdale Quadrangle, the project area is not located within a mapped Earthquake-Induced Landslides Zone. Moreover, given the flat topography of the Expansion Area, the project would not create slopes.

| Threshold: Would the project impede the extraction of significant mineral resource deposits? |

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Effects Found Not To Be Significant
As illustrated on General Plan Exhibits ER-1B and ER-1C, there are no mineral resource deposits within the project area. Therefore, project implementation would not impede the extraction of a significant mineral resource deposit.

**AIR**

**Threshold: Produce potentially toxic air emissions?**

Future activities within the proposed Expansion Area are not anticipated to produce potentially toxic air emissions. Air Force Plant 42 is an existing use located within the Expansion Area. Although the types of research and development programs and individual site operations within Air Force Plant 42 may change over time, it is anticipated that Air Force Plant 42 would continue to operate as a GOFCO facility with similar operations as currently exist. As a Federal facility managing Federal defense programs, Air Force Plant 42 is generally governed through the National Environmental Policy Act (NEPA). Programs that impact the City directly are reviewed in compliance with CEQA. Impacts in this regard are less than significant.

**Threshold: Potentially result in the creation of objectionable odors?**

Construction activity associated with buildout of the Expansion Area in accordance with the General Plan and proposed public facilities, and infrastructure and transportation improvements, may generate detectable odors from heavy-duty equipment exhaust. However, this impact would be short-term in nature and cease upon project completion. In addition, the permitted land uses are not anticipated to create objectionable odors affecting a substantial number of people. Therefore, a less than significant impact would occur in this regard.

**WATER**

**Thresholds:**

*Would the project result in a significant increase in runoff of storm or nuisance water toward the aqueduct?*

*Would the project be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools?*

The California Aqueduct is located approximately two miles west/southwest of the proposed Expansion Area. The proposed Expansion Area is not tributary to the aqueduct as flows in the area drain north, away from the aqueduct. Buildout of the Expansion Area in accordance with the General Plan would potentially increase runoff beyond existing conditions. However, due to the distance, which separates the aqueduct and Expansion Area, and the drainage patterns within the area, it is not anticipated that future development would result in a significant increase in runoff toward the aqueduct or be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools.
Thresholds:

Would the project be located above Lake Palmdale where urban runoff could significantly impact the lake?

Would the project be located in an inundation area below Lake Palmdale dams, or Littlerock dam?

The proposed Expansion Area is located approximately 0.5 mile northeast (above) Lake Palmdale. Due to the drainage patterns and distance that separates Lake Palmdale from the proposed Expansion Area, urban runoff from the Expansion Area would not significantly impact the lake. Further, the portion of the Expansion Area closest to the lake is currently developed and therefore, increased runoff beyond existing conditions is not anticipated.

According to GPEIR Exhibit 3-16 (Inundation Areas), a portion of the Expansion Area (Area B) is within the inundation area if a break occurs in the northern 20 percent of Lake Palmdale. If a break occurs, water would reach the proposed Expansion Area in approximately 3 hours and 45 minutes at a maximum flood elevation of approximately one foot. The portion of the Expansion Area located within the inundation area is currently developed with residential uses. The City’s Emergency Preparedness Plan identifies emergency response and recovery operations for disaster occurrences in the City. The Plan establishes evacuation procedures and routes in the event of an emergency. Implementation of the City’s Emergency Preparedness Plan in the event of flooding would reduce potential impacts involving inundation to less than significant.

Threshold: Would the project impede the implementation of the City’s Master Plan of Drainage or Drainage Management Plan?

The City of Palmdale Master Plan of Drainage (1988) studied six watersheds: Portal Ridge; Amargosa; Anaverde; Pearland; Littlerock; and Big Rock. Changes within four of the six watersheds were addressed in the Master Plan of Drainage Update (August 1996). Specifically, the Master Plan of Drainage Update analyzes pre- and ultimate development conditions for four watersheds: Portal Ridge; Amargosa; Anaverde; and Pearland. Based on the analysis, the Master Plan of Drainage Update recommends detention basins, regional drains, channels, and master plan facilities to serve ultimate development. Palmdale Municipal Code (PMC) Chapter 3.38, Drainage Fee Requirements, requires development projects to mitigate the impacts of the development on the City’s drainage facilities. The City requires developers to construct drainage facilities in accordance with the City of Palmdale Master Plan of Drainage or pay drainage fees that will be used to construct drainage facilities pursuant to the Master Drainage Plan. Buildout of the Expansion Area would occur in accordance with the General Plan and site-specific development is not a part of the proposed project. As site specific development projects are proposed, they would be reviewed to ensure that drainage facilities are constructed in compliance with the City’s Master Plan of Drainage and/or payment of applicable drainage fees occurs. Thus, the proposed project would not impede the implementation of the City’s Master Plan of Drainage or Drainage Management Plan.

Threshold: Would the project result in the significant alteration of the direction or rate of flow of groundwater?
GPEIR Exhibit 3-13 (Aquifers and Groundwater Surface), illustrates the aquifer boundaries and groundwater elevations. According to GPEIR Exhibit 3-13, groundwater in the proposed Expansion Area is located in excess of 100 feet below the surface. Therefore, it is highly unlikely future development in the Expansion Area would significantly alter the direction or rate of flow of groundwater. A less than significant impact would occur in this regard.

ANIMAL LIFE

Threshold: Is the project located in a Significant Ecological Area where the introduction of animals associated with urbanization could adversely affect native species; or where the project will result in a barrier to the migration or movement of animals?

A “Significant Ecological Area (SEA)” is an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan General Plan. SOC Figure 4.2-2 (Significant Ecological Areas) illustrates the SEAs located in the Palmdale area and indicates there are five Significant Ecological Areas (SEA) in the Palmdale area: Ritter Ridge; Big Rock; Wash; Little Rock Wash; Portal Ridge; and Alpine Butte. The proposed Expansion Area is not located within a SEA. Therefore, project implementation would not adversely impact native species or result in a barrier to the migration or movement of animals within a SEA. No impact would occur in this regard.

NOISE

Threshold: If the project is residential or noise sensitive, will it expose people to severe noise levels because it is located adjacent to a freeway?

Although buildout of the Expansion Area in accordance with the General Plan would involve development of residential land uses, the Expansion Area is not located adjacent to a freeway. Therefore, future development within the Expansion Area would not expose people to severe noise levels associated with a freeway.

Threshold: Is the proposed project within the Plant 42 over-flight area, or the 65 CNEL boundary?

Plant 42 is located within the proposed Expansion Area. Although the types of government research and development programs and individual site operations within Air Force Plant 42 may change over time, the Expansion Area Amendment anticipates that Air Force Plant 42 would continue to operate as a Government-owned/contractor-operated (GOCO) facility with similar operations as currently exist. As shown on Palmdale General Plan Exhibit S-17 (USAF Plant 42 Air Installation Compatible Use Zone (AICUZ)), the northeastern portion of the Expansion Area, located outside of Plant 42, is within Accident Potential Zone (APZ) I and II. Further, according to the Air Installation Compatible Use Zone Study for Air Force Plant 42 (2002), portions of the proposed Expansion Area are located within the Plant 42 over-flight area and within the 65 CNEL noise contour. Specifically, a portion of the Palmdale Hybrid Power Plant (“Power Plant”) site is located within the 65 CNEL noise contour. As stated, the California Energy Commission is the lead agency for this project under CEQA and has a certified
regulatory program under CEQA. Thus, environmental review and approval of the Power Plant project is not included as part of the proposed Expansion Area Amendment. However, any development within this area would be required to be compatible with Air Force Plant 42 and land uses identified by the AICUZ study, which allow for industrial uses within the 65 noise contour. Thus, aircraft noise is not expected to result in a significant impact to Expansion Area land uses located outside of Plant 42.

Additionally, it is the City’s goal (Goal N2) to promote noise compatible land uses within the 65 CNEL contour and the Frequent Overflight Area of Air Force Plant 42. To this end, the City would ensure that land uses planned in the vicinity of Plant 42 would not be adversely affected by present and future noise levels expected to be generated by Plant 42 (Objective N2.1). Therefore, all future development within the Expansion Area that is located within the Plant 42 65 CNEL noise contour would be subject to compliance with the following policies:

Policy N2.1.1: Designate and permit land uses within the 65 CNEL contour and the Frequent Overflight Area which are primarily industrial, business park, commercial and recreational uses which are not noise sensitive; permit other uses only when it is found that no adverse noise impacts will result.

Policy N2.1.2: Restrict noise sensitive land uses (such as residential uses, churches, schools, rest homes, or similar uses) within areas designated as within both the 65 CNEL contour and the Frequent Overflight Area.

**LIGHT OR GLARE**

**Threshold:** Will the project produce significant new sources of light or glare that would disturb neighboring uses or significantly change the light environment visible from other areas of the City?

The proposed Expansion Area and surrounding area consist of a mix of developed and vacant land. Developed lands currently contain various forms of on-site and off-site lighting. Buildout of the Expansion Area in accordance with the General Plan would involve lighting for activity areas involving nighttime uses, parking, security lighting around structures, and interiors of buildings. The future uses would result in development at a greater intensity than currently exists. However, due to the relatively flat topography of the area and the urbanized nature of the proposed Expansion Area and surrounding area, future development would not significant change the light environment visible from other areas of the City.

Buildout of the Expansion Area in accordance with the General Plan would introduce new sources of light and glare that could potentially affect neighboring uses. PMC Chapter 8, Article 86 (Landscaping, Lighting, Screening and Walls) establishes lighting requirements for residential and non-residential uses. Specifically, PMC Section 86.03 addresses lighting requirements. The lighting requirements address lighting fixtures within or abutting residential zones to avoid glare and light spread from adjacent uses. Further, limits for the heights of light standards are provided for commercial and industrial zones to ensure glare or light spillage does not occur in areas visible to the general public. Standards are also provided for lighting of outdoor recreation facilities, including limits on light intensity, off-site spill, and shielding. Security lighting is also required to be shielded and aimed at the designated area to avoid light
spill. Requirements for overall lighting intensity are also identified. Individual site development proposals would be reviewed on a project-by-project basis to ensure that all proposed lighting meets the requirements of PMC Section 86.03. Compliance with the PMC would ensure that new sources of light or glare do not disturb neighboring uses.

**LAND USE**

**Thresholds:**

*Will the project result in a substantial alteration of the present or planned land use of an area?*

*Are adjoining or planned land uses greatly different from that of the proposed project so that a potentially substantial interface problem would be created?*

*If the project is located within the Plant 42 AICUZ zone, does it conflict with the joint land use policies established for those zones?*

The proposed Expansion Area Amendment does not involve a General Plan Amendment or Zone Change. Buildout of the Expansion Area would occur in accordance with existing General Plan land use designations. The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area. The proposed project would not result in an alteration of present or planned land uses within the area.

The Expansion Area and surrounding areas consist of developed and vacant land. Site specific development is not proposed as part of the Expansion Area Amendment. Buildout of the Expansion Area would occur in accordance with the General Plan. Future site-specific development would be reviewed on a case-by-case basis, in order to determine its consistency with the Palmdale General Plan and Zoning Ordinance, and ensure that substantial interface problems between existing and proposed land uses do not occur.

As stated above, Air Force Plant 42 is located within the proposed Expansion Area. Additionally, a portion of the Expansion Area located outside of Air Force Plant 42 is within APZ I and APZ II. The project does not propose site specific development or land use modifications. Buildout of the Expansion Area would occur in accordance with existing General Plan land use designations. Future development within APZ I or APZ II would be subject to land use restrictions and would be reviewed for compliance with the land use compatibility guidelines established in the Air Installation Compatible Use Zone Study for Air Force Plant 42. Therefore, impacts to land use would be less than significant.

**NATURAL RESOURCES**

**Thresholds:**

*Will the project result in a significant increase in the rate of use of any natural resources?*

*Will the project result in the substantial depletion of any non-renewable natural resources?*
The Expansion Area Amendment does not propose any site specific development; therefore it would not involve any direct activities that would deplete natural resources. Buildout of the Expansion Area in accordance with the General Plan may require the use of stone, sand, gravel, wood, metals and combinations of these and similar natural materials (resources) in their construction. However, the harvesting/mining of such resources has been approved through other agencies and the resulting products are anticipated to be available for use during construction. Therefore, development within the Expansion Area would not result in adverse impacts to the environment due to a significant depletion of natural resources.

**RISK OF UPSET**

**Threshold:**  Will the project result in possible interference with any emergency response plan for emergency evacuation plan?

Palmdale General Plan Exhibit S-1 (Evacuation Routes) identifies existing emergency evacuation routes within the City. Evacuation routes within and adjacent to the proposed Expansion Area include Avenue M, Avenue P, Palmdale Boulevard, Avenue R, and Sierra Highway. The project proposes infrastructure and transportation improvements, including street and traffic control improvements. Traffic and circulation plans are subject to review and approval by the City. Furthermore, plans would be submitted to, among other agencies, the police and fire departments serving the proposed Expansion Area for review and approval. Review by these public agencies would ensure buildout of the Expansion Area in accordance with the General Plan and proposed public facilities, and infrastructure and transportation improvements, would not interfere with an emergency response plan or emergency evacuation plan. Additionally, emergency vehicles would continue to have access to project area and surrounding roadways upon completion of each project. Therefore, impacts would be less than significant in this regard.

**Threshold:**  Is the project within or adjacent to a high fire hazard area as shown in the General Plan, identified by the Los Angeles County Fire Department or based on a site inspection?

The Proposed Expansion Area is not located within proximity to a high fire hazard area; refer to General Plan Exhibit S-16 (Wildfire Hazard Zones). Therefore, no wildfire hazard impact would occur with implementation of the proposed project.

**TRANSPORTATION/CIRCULATION**

**Threshold:**  Does circulation within the project prevent the safe and orderly flow of people and vehicles, including emergency vehicles?

The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plan for the Merged Project Area to add 7,787 acres to the Merged Project Area. Additionally, the project proposes infrastructure and transportation improvements, including street and traffic control improvements. Buildout of the Expansion Area would occur in accordance with the General Plan. Specific development and/or improvements are not currently proposed. It is not anticipated that future development within the proposed Expansion Area would prevent the safe and orderly flow of people and vehicles within and through the area. Individual development
projects would be reviewed on a case-by-case basis, in order to ensure that safe and adequate flow and emergency access is provided. Impacts would be less than significant in this regard.

Additionally, all future development would be subject to compliance with Circulation Element Policy C1.4.4, which is intended to promote safe circulation and emergency access, through the following means:

- Require a minimum 26-foot wide paved access from an improved public street to all developments. Individual single family residences (not associated with a tract map) are excluded from this requirement except as deemed necessary by the Los Angeles County Fire Protection District. Access roads shall be increased to 28 feet in width within 200 feet of an intersection with a public street.

- Two points of ingress and egress should be provided to every subdivision or phase thereof. Exceptions may be granted for small subdivisions where physical constraints make it difficult or impossible to provide a second access point.

- Medians constructed in arterial streets should be provided with decorative paved crossover points for emergency vehicles, where deemed necessary by the Fire Department.

- Street naming and numbering should consider ease of use for dispatch of emergency services.

- The street system should function safely and effectively, without the subsequent need for excessive traffic control devices.

**Threshold:** *Will the project create or experience access problems as designed, or create any obstruction to the safe flow of traffic?*

Buildout of the Expansion Area would occur in accordance with the General Plan. The project proposes infrastructure and transportation improvements, including street and traffic control improvements. However, specific development and/or improvements are not currently proposed. It is not anticipated that buildout of the Expansion Area would create access problems or an obstruction to the safe flow of traffic. Future development proposals would be evaluated on a case-by-case basis, in order to ensure that adequate circulation and traffic flow is provided. Impacts would be less than significant in this regard. Refer also to Circulation Element Policy C1.4.4, which is outlined above.

**Threshold:** *Could the project result in a significant alteration to rail or air traffic?*

**Freight Lines.** The Union Pacific Railroad runs parallel to Sierra Highway within the proposed Expansion Area. Metrolink commuter rail service shares the Union Pacific Railroad right-of-way. The Expansion Area Amendment is not anticipated to result in a significant alteration to freight rail traffic. Additionally, buildout of the Expansion Area in accordance with the General Plan would be subject to compliance with the following Circulation Element policies:

**Policy C4.1.1:** Designate industrial land uses in areas with potential for freight rail service.
Policy C4.1.2: Work with the Southern Pacific Transportation Company to increase surface street access across the railroad tracks while minimizing impacts on rail service.

Commuter Rail. Metrolink’s Antelope Valley Line (Los Angeles Union Station to Lancaster) generally runs parallel and east of SR-14, traversing the western portion of the project area. Buildout of the Expansion Area in accordance with the General Plan may result in an increased demand for commuter rail service. Metrolink regularly reviews demand for rail service and makes adjustments as needed to accommodate such demand. Adequate provision of these services is expected to continue to occur. Refer to the Alternative Transportation Section below for further discussion of Metrolink.

Air Force Plant 42. Air Force Plant 42 (Plant 42) is a Production Flight Test Installation. Plant 42 is an aerospace technology and manufacturing plant comprised of eight separate production sites. The aerospace contractors at Plant 42 share a common runway complex comprised of two active 12,000-foot runways.

In 1989, LAWA and the USAF entered an agreement concerning commercial use of Plant 42’s facilities and land. The agreement permits a maximum of 400 commercial flights per day. There have been no civilian flights from the Palmdale Regional Airport terminal sited on Plant 42 since December 2008. Although, buildout of the Expansion Area in accordance with the General Plan anticipates the development of one million square feet of non-residential uses within Plant 42, the existing military air operations would not be significantly altered. Additionally, all future development would be subject to compliance with the following Circulation Element policies:

Policy C4.2.1: Support regional efforts to connect Palmdale Regional Airport to Los Angeles International Airport with a high-speed rail line.

Policy C5.1.1: Adopt land use designations and policies which minimize encroachment of incompatible uses into space utilized by air operations.

Policy C5.1.2: Implement noise and safety policies as developed by the Joint Land Use Committee and as incorporated into various elements of this General Plan.

Policy C5.1.3: Coordinate development policies and decisions with Air Force Plant 42 representatives.

Policy C5.2.1: Promote economic development of land surrounding the airport for large-scale commercial uses, so as to support a market demand for airport services.

Policy C5.2.2: Restrict encroachment of incompatible uses into land affected by future airport operations.

Policy C5.2.3: Promote and support regional transportation planning for routes serving the airport facility, including State Routes 14 and 138.
Threshold: Would the project create a significant shortage of parking?

The Expansion Area Amendment does not propose specific development within the project area. Buildout of the Expansion Area would occur in accordance with the General Plan. Individual development projects would be reviewed on a case-by-case basis, in order to ensure that adequate parking is provided for the use being proposed in compliance with PZO Chapter 8 Article 87 (Off-Street Parking), which would ensure adequate, accessible, secure, properly lighted, and well maintained and screened off-street parking facilities are provided. Additionally, compliance with Circulation Element Policy C1.5.1, which requires that parking and traffic plans be developed for those neighborhoods, which are adversely impacted by parking and traffic, would be required. Parking impacts are considered less than significant.

PUBLIC SERVICES

Fire Protection

Threshold: Will the project result in a need for significant additional fire protection services?

Buildout of the Expansion Area in accordance with the General Plan would increase demand for fire protection services. Increased demands may require improvements to existing facilities or increases in staffing and equipment. PMC Chapter 3.42, Fire Facilities Impact Fee Requirements, establishes fire facilities impact fees for residential and non-residential development for the purpose of constructing, expanding, or rehabilitating fire protection facilities and equipment. Future development projects within the Expansion Area would be required to pay the fees in effect at the time required, as identified in PMC Chapter 3.42. Payment of the applicable fees would reduce potential impacts to fire protection services to a less than significant level.

Public Facilities

Threshold: Will the proposed project have a significant impact on maintenance of public facilities, including roads, drainage facilities, slopes, open space and trails?

Buildout of the Expansion Area would occur in accordance with the General Plan. The project proposes improvements to deteriorated public facilities and infrastructure, such as roads and drainage facilities. Future improvements would be planned and implemented to serve existing and future growth within the area. Although new and improved facilities are anticipated, increased development within the area would increase the need for maintenance of both existing and new facilities. PMC Code Chapter 3.45, Public Facility Development Impact Fee Requirements, requires developers to pay a public facility development impact fee to meet the demand for public facilities created by development. The fees collected are used for constructing, expanding, or rehabilitating public facilities identified in the Public Facilities Impact Fee Final Report. Future development projects within the Expansion Area would be required to pay the fees in effect at the time required, as identified in PMC Chapter 3.45. Payment of the applicable fees would reduce potential impacts to public facilities to a less than significant level.
Other Governmental Services

Threshold: *Will the project have a significant impact on a government service or agency not listed above?*

Buildout of the Expansion Area would occur in accordance with the General Plan. The potential development and resultant population increase is not expected to significantly impact the ability of government service providers or agencies to provide services. Impacts would be less than significant in this regard.

AESTHETICS

Threshold: *Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?*

The proposed Expansion Area is not located near any scenic highways or within an area identified for scenic and recreational opportunities as shown on General Plan Exhibits ER-1 (Scenic Highways) and ER-9 (Regional Scenic and Recreational Opportunities). Buildout of the Expansion Area in accordance with the General Plan would have an incremental impact on the loss of vacant/open space. However, development within the area is anticipated under the General Plan/General Plan EIR. Site-specific development would be reviewed to ensure that any new construction complies with the development standards established in the Zoning Ordinance, which include setbacks, building heights, and landscaping, lighting, screening and walls to ensure visual impacts from existing developed areas are minimized. Further, in accordance with the General Plan Community Design Element, new structures would consist of high quality, aesthetically pleasing architectural design utilizing durable materials to enhance the project. Thus, future development would not result in the creation of an aesthetically offensive site open to public view.

PUBLIC CONTROVERSY

Threshold: *Is the project or action environmentally controversial in nature or can it reasonably be expected to become controversial upon disclosure to the public?*

The proposed project is not considered environmentally controversial in nature and is not anticipated to become controversial. Potential public controversy associated with environmental issues is not anticipated since a Program EIR has been prepared for the project and potential impacts are analyzed. Opportunity for public review and comment on the Draft EIR will be provided during the 45-day public review period. This does not constitute a significant impact on the environment.
AGRICULTURE AND FOREST RESOURCES

Thresholds:

Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Conflict with existing zoning for agricultural use, or a Williamson Act contract?

According to Important Farmland Maps for Los Angeles County, provided by the State of California Department of Conservation (September 2009), the proposed Expansion Area does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The proposed Expansion Area is not currently zoned for agricultural use and does not contain land within a Williamson Act contract. The project area is currently zoned for residential, commercial, mixed-use, industrial, open space and recreation, and public facility uses. In addition, two Specific Plans occur within the proposed Expansion Area. The proposed Expansion Area Amendment would not involve a change to existing zoning.

Thresholds:

Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Result in the loss of forest land or conversion of forest land to non-forest use?

The proposed Expansion Area is currently zoned for residential, commercial, mixed-use, industrial, open space and recreation, and public facility uses. In addition, two Specific Plans occur within the proposed Expansion Area. There are no forest lands or timberlands within the Expansion Area. Further, the Expansion Area does not contain any forest land and future development within the area in accordance with the General Plan would not result in the loss of forest land or conversion of forest land to non-forest use.

Threshold: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As stated, the project area is currently developed with urbanized uses. The surrounding area is also primarily urbanized and does not contain farmland or forest uses. The area is identified by the General Plan for urban uses and would not involve changes to the existing environment that would result in conversion of farmland or forests uses.
8.2 EIR CONCLUSIONS

Refer to Section 5.0 for the complete impact analysis.

8.2.1 LESS THAN SIGNIFICANT IMPACTS

The following thresholds were identified as less than significant or less than significant with mitigation incorporated.

**POPULATION, HOUSING, AND EMPLOYMENT**

Would the project significantly alter the location, distribution, density, or growth rate of the human population of an area?

Would the project result in displacement of people from existing housing on the site?

Would the project create a significant demand for additional housing?

Buildout of the expansion area in accordance with the general plan, combined with other development within the City, could result in cumulative impacts involving the City’s population, demand for additional housing, and/or displacement of people.

**TRANSPORTATION AND CIRCULATION**

What is the estimated number of average daily vehicle trips, and a.m. and p.m. peak hour trips, generated by the proposed project?

Would the project cause a reduction in Level of Service at an intersection or on a street segment?

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 and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways?

Would the project 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 pedestrian and bicycle paths, and mass transit?

Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?

Would the project 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 pedestrian and bicycle paths, and mass transit?
transportation including mass transit and non-motorized travel, and relevant components of the circulation system, including but not limited to pedestrian and bicycle paths, and mass transit?

Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could result in cumulatively considerable traffic and circulation impacts.

**NOISE**

If the project is residential or noise sensitive, will it expose people to severe noise levels because it is adjacent to an existing or future arterial street?

If the project is residential or noise sensitive will it expose people to severe noise levels because it is within 200 feet of the railroad?

Would the project generate a noise level exceeding 65 CNEL at the project boundary after construction that could significantly impact an adjoining land use?

Project implementation could result in cumulatively considerable noise impacts from mobile (vehicular and railroad) and stationary noise sources.

**GEOLOGY AND SEISMIC HAZARDS**

Would the project be located in a zone subject to seismic ground shaking, ground failure, or liquefaction?

If the site is in a fault rupture hazard zone, is there an active or potentially active fault on the project site?

If the site is in a fault rupture hazard zone, does the project include a school, emergency or public facility, day care center, nursing home, or high rise building?

Would the project include areas of potential differential settlement on the project site, which could significantly impact development of the proposed project?

Would the project include areas of high shrink/swell (hydrocompaction) potential, which could significantly impact development of the proposed project?

Would the project be located in an area of potential subsidence?

Would the project result in a significant increase in wind or water erosion of soils, either on- or off-site?
Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could result in cumulative geology and soils impacts.

HAZARDS AND HAZARDOUS MATERIALS

Will the project result in a risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset condition?

Is the site included on any known State Hazardous Waste Site list?

Will the project create any health hazard or potential health hazard (excluding mental health)?

Will the project result in the exposure of people to potential health hazards?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could result in cumulative impacts associated with hazards and hazardous materials.

HYDROLOGY AND WATER QUALITY

Would the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?

Would the project result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities?

Would the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?

Would the project result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities?

Would the project be located in an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments?

Would the project result in a significant increase in peak runoff that could increase flood hazard off-site?

Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could cumulatively impact hydrology and water quality.
BIOLOGICAL RESOURCES

Does the project contain a blue-line stream, spring, seep, or wetland?

Will the project include changes in the course or volume of water in a local stream or wetland which require Department of Fish and Game or Army Corps of Engineers permits?

Will the project result in the loss of, or changes to, significant stands of riparian vegetation?

Is there a significant stand of desert vegetation on the site, which will be adversely impacted by the project?

Will the project result in the introduction of invasive, non-native species of plants into an area; or create a barrier to the normal replenishment of existing native plant species?

Will the project result in a significant reduction in acreage of native vegetation?

Will the project result in a significant loss of biological diversity?

Will the project cause significant deterioration of, or loss of, existing fish or wildlife habitat?

CULTURAL RESOURCES

Would the project result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

Would the project result in potential adverse impacts on paleontological resources?

Would the project result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

Would the project disturb any human remains, including those interred outside of formal cemeteries feature?

POLICE PROTECTION

Are there any aspects of the project that would create a significant impact to police protection?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could cumulatively impact police protection services.

SCHOOL FACILITIES

In what elementary and high school attendance area is the project?

Approximately how many students will the project generate?
Would the students generated by the project significantly contribute to the affected schools exceeding their designed capacity?

Buildout of the expansion area in accordance with the general plan and other development in the City could cumulatively contribute to the affected schools exceeding their designed capacities.

**PARKS AND RECREATIONAL FACILITIES**

Will the proposed project result in an impact on the quality or quantity of existing parks or recreational facilities, including trails or bicycle paths?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could cumulatively impact parks and recreation facilities.

**LIBRARY SERVICES**

Will the project result in a significant impact to library services due to increased population?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan elsewhere in the City could cumulatively impact City of Palmdale library facilities and services.

**WASTEWATER**

Will the project result in a need for new systems or substantial alterations to sanitary sewer?

Buildout of the expansion area in accordance with the general plan and other development anticipated by the general plan would not result in cumulatively considerable impacts involving wastewater.

**SOLID WASTE**

Would the project require new solid waste disposal facilities or substantial alterations to existing facilities?

Would the project be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs?

Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Buildout of the Expansion Area in accordance with the General Plan and other development anticipated by the General Plan elsewhere in the City could cumulatively impact solid waste disposal and landfill capacity?
ELECTRICITY AND NATURAL GAS

Would the project result in a need for new, or substantial alterations to the power or natural gas systems?

Buildout of the Expansion Area in accordance with the General Plan and other development anticipated by the General Plan elsewhere in the City could cumulatively impact electrical supplies and systems?

Buildout of the Expansion Area in accordance with the General Plan and other development anticipated by the General Plan elsewhere in the City could cumulatively impact natural gas supplies and systems?

COMMUNICATIONS SYSTEMS

Would the project result in a need for new, or substantial alterations to the communication services?

Buildout of the Expansion Area in accordance with the General Plan and other related development throughout the City could cumulatively impact communication systems?
12.0 Comments and Responses
12.0 COMMENTS AND RESPONSES

12.1 CEQA REQUIREMENTS

Before approving a project, the California Environmental Quality Act (CEQA) requires the Lead Agency to prepare and certify a Final Environmental Impact Report (EIR).

In accordance with Sections 15120 through 15132 and Section 15161 of the CEQA Guidelines, the City of Palmdale has prepared an EIR for the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area (SCH #2010091073). The Comments and Responses section, combined with the Draft EIR and Mitigation Monitoring Program, comprise the Final EIR.

The following is an excerpt from the CEQA Guidelines, Section 15132, Contents of Final Environmental Impact Report:

The Final EIR shall consist of:

(a) The Draft EIR or a version of the draft.
(b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
(c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
(e) Any other information added by the Lead Agency.

This Comments and Responses section includes all of the above-required components and shall be attached to the Final EIR.

12.2 PUBLIC REVIEW PROCESS – DRAFT EIR

The Draft EIR was circulated for review and comment to the public, agencies, and interested parties. The Draft EIR was also circulated to State agencies for review through the State Clearinghouse, Office of Planning and Research. The 45-day public review period ran from February 28, 2011 to April 13, 2011. Comments received during the 45-day public review period from the public and local and State agencies on the Draft EIR have been incorporated into this section.

12.3 FINAL EIR

The Final EIR allows the public and Lead Agency an opportunity to review revisions to the Draft EIR, the responses to comments, and other components of the EIR, such as the Mitigation
Monitoring Program, prior to approval of the project. The Final EIR serves as the environmental
document to support a decision on the proposed project.

After completing the Final EIR, and before approving the project, the Lead Agency must make
the following three certifications as required by Section 15090 of the CEQA Guidelines:

- That the Final EIR has been completed in compliance with CEQA;
- That the Final EIR was presented to the decision-making body of the Lead Agency, and
  that the decision-making body reviewed and considered the information in the Final EIR
  prior to approving the project; and
- That the Final EIR reflects the Lead Agency’s independent judgment and analysis.

Additionally, pursuant to Section 15093(b) of the CEQA Guidelines, when a Lead Agency
approves a project that would result in significant, unavoidable impacts that are disclosed in the
Final EIR, the agency must submit in writing its reasons for supporting the approved action.
This Statement of Overriding Considerations is supported by substantial information in the
record, which includes the Final EIR. Since the proposed project would result in significant,
unavoidable impacts, the Lead Agency would be required to adopt a Statement of Overriding
Considerations if it approves the proposed project.

These certifications, the Findings of Fact, and the Statement of Overriding Considerations are
included in a separate Findings document. Both the Final EIR and the Findings will be
submitted to the Lead Agency for consideration of the proposed project.

12.4 WRITTEN COMMENT LETTERS
AND RESPONSES

All correspondence from those agencies or individuals commenting on the Draft EIR is
reproduced on the following pages. The individual comments on each letter have been
consecutively numbered for ease of reference. Following each comment letter are responses to
each numbered comment. A response is provided for each comment raising significant
environmental issues. Added or modified text is underlined (example), while deleted text will
have a strike out (example) through the text, and is included in a box, as the example below shows.

“Text from EIR” “Text from EIR”
Comment Letters

A total of six written comment letters were received during the 45-day public review period.

A. Metrolink  
B. Department of Transportation  
C. California Regional Water Quality Control Board Lohontan Region  
D. Antelope Valley Mosquito & Vector Control District  
E. State of California Governors Office of Planning and Research  
F. County Sanitation Districts of Los Angeles County
March 14, 2011

Susan Koleda
Senior Planner
City of Palmdale
38250 N. Sierra Hwy
Palmdale, CA 93550

RE: Notice of Availability of a Draft Environmental Impact Report (NOA DEIR) for Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area

Dear Ms. Koleda,

The Southern California Regional Rail Authority (SCRRA) has received the Notice of Availability of a Draft Environmental Impact Report (NOA DEIR) for Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area. Thank you for the opportunity to comment on key issues relative to SCRRA and operations of the railroad adjacent to the project site. As background information, SCRRA is a five-county Joint Powers Authority (JPA) that operates the regional commuter rail system known as Metrolink. Additionally, SCRRA provides rail engineering, construction, operations and maintenance services to its five JPA member agencies. The JPA consists of the Los Angeles County Metropolitan Transportation Authority (METRO), San Bernardino Associated Governments (SANBAG), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC) and Ventura County Transportation Commission (VCTC).

The railroad right of way portion within the proposed project is operated and maintained by SCRRA on the Valley Subdivision. The proposed project is within the following listed railroad crossings and station:

- Columbia Way- PUC #VY-73.02, DOT 750642H
- Avenue N- PUC #VY-72.00-X, DOT 750607U
- Rancho Vista- PUC #VY-69.93, DOT750643P
- Sierra Hwy- PUC #VY-69.33, DOT 750604Y
- Palmdale Metrolink Station, MP 92.2
- Palmdale Blvd- PUC #VY-68.42, DOT 750603S
- Avenue R- PUC #VY-67.93, DOT 750602K
- Avenue S- PUC #VY-66.92, DOT 750601D
Below is a list of general comments that are of concern for all proposed projects near or adjacent to the railroad right of way. Based on our initial cursory review of the NOA DEIR and its possible impact on the railroad, the general comments marked as "Yes" are applicable to proposed project at this current stage of development. Please note that these are initial general comments submitted to meet the public comment period. SCRRRA may follow up with more specific comments for consideration if further analysis deems it necessary. In addition, please be informed that some general comments listed below but not currently indicated as applicable may become applicable in the future as the proposed project develops into construction.

<table>
<thead>
<tr>
<th>Applicable</th>
<th>General Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td><strong>Provide Adequate Drainage</strong>&lt;br&gt;City/Agency shall prevent flooding of rail tracks by diverting or defusing storm water runoff and prevent and mitigate any disruptions to SCRRRA operations</td>
</tr>
<tr>
<td>No</td>
<td><strong>Prevent Vehicles from Queuing on to Tracks</strong>&lt;br&gt;Lane reduction near or about the crossing during construction is a safety concern to SCRRRA. Flagging and other efforts shall be provided to mitigate queuing onto the tracks.</td>
</tr>
<tr>
<td>Yes</td>
<td><strong>Prevent Trespassing</strong>&lt;br&gt;Measures to prevent illegal crossings and access of right of way must be implemented and meet SCRRRA standards to mitigate safety concerns and impacts to train operations. City/Agency shall fence off access to railroad tracks to prevent pedestrians from using the rail corridor. SCRRRA will need to review and approve all draft and final designs to ensure conformance to railroad design standards. Please be sure to show offset measurements from parcel boundary to centerline of track on proposed fence drawings.</td>
</tr>
<tr>
<td>No</td>
<td><strong>Obtain SCRRRA Permits Prior to Construction or Entering Railroad Property</strong>&lt;br&gt;Request approval from SCRRRA before construction or entering railroad property. City/Agency must submit proper SCRRRA forms. These forms can be obtained from our website: <a href="http://www.metrolinktrains.com/pub_projects/?id=11">http://www.metrolinktrains.com/pub_projects/?id=11</a></td>
</tr>
<tr>
<td>No</td>
<td><strong>Notify CPUC</strong>&lt;br&gt;City/Agency will draft and submit, with SCRRRA approval, a California Public Utilities Commission (PUC) General Order 88B Form, a Form G and a US DOT Crossing Inventory Information Form</td>
</tr>
<tr>
<td>Applicable</td>
<td>General Comment</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
</tr>
</tbody>
</table>
| Yes        | Provide Safe Pedestrian Access  
The project should ensure safe and easy pedestrian access at each crossing and station. | A8 |
| No         | Incorporate SCRRRA Standards in All Designs  
SCRRRA will need to review and approve all drafts and final designs related to rail design to ensure conformance to design standards and operational needs. | A9 |
| Yes        | Provide Sufficient Parking  
City/Agency shall furnish sufficient parking for the future demand of the Metrolink passengers if there are any improvements to stations | A10 |
| No         | Insulate from Rail Noise  
It is recommended that the project’s development incorporate the appropriate sound insulation measures to prevent rail operations noise intrusion. | A11 |
| Yes        | SCRRRA Involvement  
City/Agency shall provide timely notice, in accordance with Public Resources Code Section 21092.5 and State CEQA Guideline Section 15088, of the written proposed responses to our comments on this environmental document and the time and place of any scheduled public meetings or public hearings by the agency decision makers at least 10 days prior to such a meeting. | A12 |

Thank you again for cooperating with SCRRRA to help ensure the development of a successful project. If you have any questions regarding these comments please contact Patricia Watkins at 213 452-0415 or watkinsp@scrra.net.

Sincerely,

[Signature]

Patricia Watkins  
Assistant Director, Public Projects

Cc: Kim Chan
A. RESPONSES TO COMMENTS FROM PATRICIA WATKINS, ASSISTANT DIRECTOR PUBLIC PROJECTS, METROLINK, DATED MARCH 14, 2011

A1. The comment provides background information on the Southern California Regional Rail Authority (SCRRRA) and identifies the portions of the railroad right-of-way operated and maintained by the SCRRRA that are located within the project area. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A2. The comment introduces the list of general comments that are of concern for all proposed projects near or adjacent to the railroad right-of-way. The general comments marked as “yes” are applicable to the proposed project at this stage of development. However, the comment notes that additional comments may be submitted. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A3. The comment states the City/Agency shall prevent flooding of rail tracks and disruptions to SCRRRA operations. The project does not propose site-specific development that would involve drainage impacts to existing rail tracks. Future development, including potential drainage impacts, would be reviewed on a project-by-project basis. The comment is noted and will be made available to the decision makers.

A4. The General Comment is identified as not applicable to the proposed project. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A5. The comments states the City/Agency shall provide measures to prevent illegal crossings and access of right-of-way, including fencing off access to railroad tracks. The project does not propose site-specific development or improvements adjacent to railroad right-of-way. Future development would be reviewed on a project-by-project basis to address any safety concerns associated with the railroad right-of-way. The comment is noted and will be made available to the decision makers.

A6. The General Comment is identified as not applicable to the proposed project. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A7. The General Comment is identified as not applicable to the proposed project. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A8. The comment states the project should ensure safe and easy pedestrian access at each crossing and station. The project does not propose specific improvements associated with railroad crossings or stations that would involve pedestrian access. Future improvements that may involve railroad crossings or stations would be reviewed on a project-by-project basis to address pedestrian access and safety. The comment is noted and will be made available to the decision makers.
A9. The General Comment is identified as not applicable to the proposed project. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A10. The comment notes that the City/Agency shall provide sufficient parking for future demand of Metrolink passengers if there are any improvements to the station. The project does not propose specific improvements to the existing Transit Station. Future improvements that may occur to the transit station would be reviewed by the City and would consider the availability and need for parking. The comment is noted and will be made available to the decision makers.

A11. The General Comment is identified as not applicable to the proposed project. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

A12. The comment states that the City/Agency shall comply with Public Resources Code Section 21092.5 and State CEQA Guidelines Section 15088 regarding written responses to comments provided by the SCRRRA. The comment is noted.
March 28, 2011

IGR/CEQA No. 110301AL-DEIR
Referenced to
IGR/CEQA No. 100965AL, NOP
Expansion Area Amendment to the Redevelopment
Plan for the Merged Project Area
Vic. LA-14 & LA-138 Various Locations
SCH # 2010091073

Ms. Susan Koleda
City of Palmdale
38250 North Sierra Highway
Palmdale, CA 93550

Dear Ms. Koleda:

Thank you for including the California Department of Transportation (Department) in the environmental review process for the above referenced project. The proposed project is an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area. No specific development is proposed at this time.

The General Plan would add 1,732 residential units and 18.9 million square feet of nonresidential uses within the buildout year. On Table 5.2-4, Expansion Area Buildout Land Use Trip Generation (Page 5.2-16 of the Environmental Impact Report, EIR), there will be an additional 230,168 Average Daily Trips (ADT), generating from this redevelopment plan. Many vehicle trips will utilize SR-14 and SR-138 during the AM/PM peak hour for daily travel.

On Page 5.2-20 of the EIR, Policy C1.2.4, item #2, the City will coordinate with Caltrans and other affected agencies to expedite rerouting of Highway 138 and widening of State Route 14. With that in mind and in the spirit of mutual cooperation, we would like to invite the Lead Agency, City of Palmdale, to the Caltrans office to discuss traffic impact, rerouting SR-138, widening SR-14, and any traffic mitigation that will alleviate traffic congestion on the State facilities. Please contact this office at your earliest convenience to schedule a meeting.

If you have any questions, please feel free to contact me at (213) 897-9140 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 110301AL.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse
B. RESPONSES TO COMMENTS FROM DIANA WATSON, IGR/CEQA BRANCH CHIEF, DEPARTMENT OF TRANSPORTATION, DATED MARCH 28, 2011.

B1. The comment invites the City of Palmdale to the Caltrans office to discuss traffic impacts, rerouting SR-138, widening SR-14, and any traffic mitigation that will alleviate traffic congestion on the State facilities. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No further response is necessary.
April 7, 2011

Susan Koleda, Senior Planner
City of Palmdale
38250 N. Sierra Highway
Palmdale, CA 93550
skoleda@cityofpalmdale.org

RECEIVED
APR 11 2011
PLANNING DEPARTMENT

File: Environmental Doc Review
Los Angeles County

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE
MERGED PROJECT AREA PROGRAM ENVIRONMENTAL IMPACT REPORT,
LOS ANGELES COUNTY, STATE CLEARINGHOUSE NUMBER 2010091073

California Regional Water Quality Control Board, Lahontan Region (Water Board) staff
has reviewed the draft Programmatic Environmental Impact Report (PEIR), which was
received on March 2, 2011, for the above-referenced project. As we understand it, the
amendment includes the addition of 7,787 acres to the Merged Project Area, and also
serves to combine the various Redevelopment Plans for the separate project areas into
a single Redevelopment Plan for the areas identified. Redevelopment projects would
be consistent with land uses as they currently exist and/or are thereafter amended.
Subsequent environmental reviews will be tiered off the PEIR as future project-specific
redevelopment proposals are initiated.

Pursuant to CEQA guidelines, California Code of Regulations (CCR), title 14, section
15096, responsible agencies must specify the scope and content of the environmental
information germane to their statutory responsibilities. Water Board staff, acting as a
responsible agency, has reviewed the above-referenced document in context as to how
well the proposed project protects water quality, and ultimately, the beneficial use of
waters of the State. There are a number of potentially significant impacts to water
quality and hydrology resources that must be adequately addressed in the
environmental review. Without adequate mitigation, Project implementation could result
in significant adverse impacts to water quality and may result in cumulative impacts that
have the potential to permanently alter the hydrological and ecological function of the
aquatic resources within the Project area, thereby adversely affecting beneficial uses.
We trust that the City will consider our comments and value our position with respect to
protecting and maintaining water quality within the Lahontan region.

AUTHORITY

State law assigns responsibility for protection of water quality in the Lahontan region to
the Lahontan Water Board. The Water Quality Control Plan for the Lahontan Region

California Environmental Protection Agency
(Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect water quality within the region. All surface waters are considered waters of the State, which include, but are not limited to, drainages, streams, washes, ponds, pools, or wetlands, and may be permanent or intermittent. All waters of the State are protected under California law. Additional protection is provided for waters of the United States (U.S.) under the Federal Clean Water Act (CWA). Based on Water Board staff review of the NOP, project components may involve alteration, dredging, filling, and/or excavating activities in waters of the State. Such activities constitute a discharge of waste\(^1\), as defined in California Water Code (CWC), section 13050, and could affect the quality of waters of the State.

The State Water Resources Control Board (State Water Board) and the Lahontan Water Board regulate discharges in order to protect the water quality and, ultimately, the beneficial uses of waters of the State. The Basin Plan provides guidance regarding water quality and how the Lahontan Water Board may regulate activities that have the potential to affect water quality within the region. The Basin Plan includes prohibitions, water quality standards, and policies for implementation of standards. The Basin Plan can be accessed via the Water Board’s web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

We request that the PEIR reference the Basin Plan in the hydrology and water quality analyses and require that future Project proponents comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan.

**POTENTIAL IMPACTS TO WATERS OF THE STATE**

Watersheds are complex natural systems in which physical, chemical, and biological components interact to create the beneficial uses of water. Poorly planned development and redevelopment upsets these natural interactions and degrades water quality through a network of interrelated effects. The primary impacts of poorly planned development and redevelopment projects on water quality are:

- Direct, indirect, and cumulative impacts – plans must include a comprehensive analysis of the direct, indirect, and cumulative physical impacts of filling and excavation of wetlands, riparian areas, and other waters of the State, performed from the site to the watershed level;
- Pollutants – the generation of pollutants during and after construction;
- Hydrologic modification – the alteration of flow regimes and groundwater; and
- Watershed-level effects – the disruption of watershed-level aquatic function, including pollutant removal, floodwater retention, and habitat connectivity.

\(^1\)"Waste" is defined in the Basin Plan to include any waste or deleterious material including, but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material) and any other waste as defined in the California Water Code, section 13050(d).
These impacts have the potential to degrade water quality and impair a number of beneficial uses by reducing the available riparian habitat and eliminating the natural buffer system to filter runoff and enhance water quality. These impacts typically result in hydrologic changes by decreasing water storage capacity and increasing water flow velocity, which in turn leads to increases in the severity of peak discharges. These hydrologic changes tend to exacerbate flooding, erosion, scouring, sedimentation and may ultimately lead to near-total loss of natural functions and values, resulting in the increased need for engineered solutions to re-establish the disrupted flow patterns. Many examples of such degradation exist in California and elsewhere. The Water Boards are mandated to prevent such degradation.

The PEIR should attempt to characterize all project-specific, cumulative, direct, and indirect impacts of various redevelopment components on the quality of waters of the State, and identify alternatives and specific mitigation measures that, when implemented, reduce and/or eliminate such impacts. The analysis should be tiered and evaluate the potential impacts at the: 1) individual project level; 2) the regional or sub-watershed area; and 3) at the watershed level. The analysis should include the following components.

Identification of Affected Waters and Beneficial Uses

The environmental review should include a regional-scale map identifying all surface water resources within the project area, including a narrative discussion of the delineation methods used to discern those surface water features in the field. These resources should be tabulated and organized by waterbody type in the appropriate sections of the environmental document. The analysis should account for beneficial uses of the identified surface water resources, as outlined in the Basin Plan, and evaluate the project-specific potential impacts to water quality with respect to those beneficial uses. The environmental document must include alternatives to avoid those impacts or list specific mitigation measures that, when implemented, minimize unavoidable impacts to a less than significant level.

Avoidance and Minimization

There are many ways a proposed project can degrade water quality, and avoiding or minimizing potential water quality degradation pathways will eliminate or reduce subsequent effects. Water Board staff strongly encourage avoidance as the primary strategy to address water quality concerns. The environmental document must evaluate specific measures to avoid or minimize each potential impact to water quality, and include a discussion of why any remaining impacts cannot be avoided or further minimized. All unavoidable impacts to waters of the State must be mitigated to ensure that no net loss of function and value will occur as a result of project implementation.

Characterization of Impacts

As noted above, avoidance is the best strategy to managing potential water quality impacts. For all unavoidable impacts, the environmental document must describe the
cause(s), nature, and magnitude of all proposed impacts, and identify whether those impacts are either permanent or temporary. For waterbodies expected to be directly affected, impacts must be quantified in acres and in linear feet for drainages or shoreline features, as well as the sum of the total affected acres and linear feet reported by waterbody type.

Hydrologic Analyses

A number of redevelopment activities described in the draft PERI have the potential to hydrologically modify natural drainage systems. If impacts are unavoidable, then Water Board staff request that the impacts be minimized to the extent practical and that the Project be designed such that it would maintain existing hydrologic features and patterns to the extent feasible. Be advised that projects must be designed such that post-construction hydrologic conditions match pre-construction conditions to avoid erosion due to constrictions restricting the passage of peak flows or the retention of flows that may adversely affect downstream reaches. To ensure that in-channel modifications are designed appropriately, we require that a professional engineer or geologist, registered in the State of California, perform analyses of different storm event flows up to the 100-year storm event and evaluate the project’s potential impacts to the existing hydrologic systems. The results of these types of analyses must be considered in the design of a project to verify that the proposed in-channel modifications will not result in hydrologic changes that exacerbate flooding, erosion, scouring, sedimentation, and/or loss of either upstream or downstream flows.

Low Impact Development

Because development projects can individually and cumulatively cause major water quality impacts, Water Board staff encourages a low-impact planning approach. Low impact design (LID) provides opportunities to avoid and minimize impacts starting at the source at initial stages of planning and project design. The PEIR should include a low-impact approach and incorporate LID strategies wherever feasible.

Stormwater Management

Post-construction stormwater management must be considered a significant component in the environmental review process. Of particular concern is the collection of stormwater runoff into channels and the discharge of that stormwater to natural drainage systems. Without adequate design, the consequences of combining these flows will likely be aggradation and headcutting upstream of the confluence and channel incision, increased sediment transport, and eventual widening downstream of the confluence. The environmental document must evaluate all potential stormwater impacts, particularly potential post-construction hydrologic impacts, and describe specific best management practices that, when implemented, will reduce those potential impacts to a less than significant level. Where feasible, we request that design alternatives be considered that redirect these flows from surface waters to areas where they will dissipate by percolation into the landscape.
PERMITTING

A number of redevelopment activities described in the draft PEIR may require permits issued by either the State Water Board or Lahontan Water Board because they have the potential to impact waters of the State. The required permits may include:

- Land disturbance of 1 acre or more may require a CWA, section 402(p) stormwater permit, including a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit obtained from the State Water Board, or an individual stormwater permit obtained from the Lahontan Water Board;

- Discharge of low threat wastes to a surface water, including diverted stream flows, construction and/or dredge spoils dewatering, and well construction and hydrostatic testing discharge, may require an NPDES permit for Limited Threat Discharges to Surface Waters issued by the Lahontan Water Board;

- Discharge of low threat wastes to land, including clear water discharges, small dewatering projects, and inert wastes, may require General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality issued by the Lahontan Water Board;

- Recycled water use is regulated under CCR, title 22, and may require Water Reclamation Requirements (WRRs) issued by the Lahontan Water Board; and

- Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification (WQC) for impacts to federal waters (waters of the U.S.), or dredge and fill WDRs for impacts to non-federal waters, both issued by the Lahontan Water Board.

Some waters of the State are "isolated" from waters of the U.S.; determinations of the jurisdictional extent of the waters of the U.S. are made by the United States Army Corps of Engineers. Projects that have the potential to impact surface waters will require the appropriate jurisdictional determinations. These determinations are necessary to discern if the proposed surface water impacts will be regulated under section 401 of the CWA or through dredge and fill WDRs issued by the Water Board.

We request that the PEIR list the permits that may be required, as outlined above, and identify the specific activities that may trigger these permitting actions in the appropriate sections of the environmental document. Information regarding these permits, including application forms, can be downloaded from our web site at http://www.waterboards.ca.gov/lahontan/.
Thank you for the opportunity to comment on the draft PEIR. Early consultation with Water Board staff is encouraged at the project level as modifications may be required to avoid and minimize impacts to waters of the State. If you have any questions regarding this letter, please contact me at (760) 241-7376 (jzimmerman@waterboards.ca.gov) or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (pcopeland@waterboards.ca.gov).

Sincerely,

Jan M. Zimmerman, PG
Engineering Geologist

cc: State Clearinghouse (SCH No. 2010091073)
    Paul Amato, Wetlands Regulatory Office, USEPA, Region 9
    "Planner of the Day", Los Angeles County Department of Regional Planning

JZ\rcU:\CEQA Review\Palmdale_EIRrev.doc
C. RESPONSES TO COMMENTS FROM JAN M. ZIMMERMAN, ENGINEERING GEOLOGIST, CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION, DATED APRIL 7, 2011.

C1. The comment summarizes the proposed project as described in the Draft EIR. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

C2. The comment provides an introduction to the review and comments provided by the Water Board staff and requests consideration of the comments by the City. The comment is noted and will be made available to the decision makers.

C3. The comment summarizes the responsibility for protection of water quality in the Lahontan region and that all surface waters are considered waters of the State, which are protected under California law. Based upon review of the NOP, Water Board staff has determined that potential activities associated with the proposed project constitute a discharge of waste. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

C4. The comment states that the Basin Plan provides guidance regarding water quality and how the Lahontan Water Board regulates activities. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

C5. The comment requests the Draft EIR reference the Basin Plan and require future projects comply with applicable water quality standards and prohibitions, including provisions of the Basin Plan. Draft EIR Section 5.8, Hydrology and Water Quality, discusses the applicable Federal, State, and local regulatory policies and laws that apply to hydrology, drainage, and water quality, including the Basin Plan overseen by the Regional Water Quality Control Board. Future development projects would be required to comply with all regulatory requirements, including provisions of the Basin Plan. The comment is noted and will be made available to the decision makers.

C6. The comment summarizes primary impacts of poorly planned development and redevelopment projects on water quality. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

C7. The comment is a continuation of the previous comment in identifying the impacts to water quality and the hydrologic changes that can occur as a result of the degradation of water quality. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

C8. Although the proposed Expansion Area Amendment could facilitate developments/improvement projects throughout the Expansion Area, the project does not involve site-specific development proposals at this time. Information is not currently available to characterize project-specific, cumulative, direct, and indirect impacts associated with site-specific development proposals. Characterization of project-specific impacts would be speculative at this time. Section 5.8, Hydrology and Water Quality, of the Draft EIR,
analyzes potential project impacts on water quality conditions, existing drainage patterns, flood control facilities, and groundwater supplies in the project area. Future development and improvement activities occurring within the Expansion Area would be assessed individually and subsequent drainage improvements and programmatic/project WQMPs would be developed to ensure compliance with the Regional Water Quality Control Board and Clean Water Act requirements. Additionally, hydrologic conditions would be evaluated on a project-by-project basis to address potential drainage impacts associated with future development/improvements. As a flood control measure, all individual development projects within the Expansion Area would be required to provide flood control facilities within their projects to mitigate the impacts of storm runoff. All future development would be required to incorporate adequate drainage that would transport runoff to local catch basins and nearby storm channels. The comment is noted and will be made available to the decision makers.

C9. Refer to Response to Comment C8.

C10. The comment encourages avoidance as the primary strategy to avoid water quality concerns and requests specific measures to avoid or minimize potential impacts to water quality. As stated, the proposed project does not involve site-specific development at this time. Individual development/improvement projects would be reviewed on a project-by-project basis to identify any potential construction and post-construction water quality impacts and identify project features or mitigation measures to reduce impacts. The comment is noted and will be made available to the decision makers.

C11. Refer to Response to Comment C10.

C12. Refer to Response to Comment C8.

C13. The comment encourages a low-impact planning approach and requests the Draft EIR incorporate low impact design (LID) strategies. LID strategies would be identified on a project-by-project basis as specific development/improvement projects occur within the proposed Expansion Area. The comment is noted and will be made available to the decision makers.

C14. The comment references stormwater management following construction activities. Refer to Response to Comment C10.

C15. The comment identifies potential permits issued by the State Water Board or Lahontan Water Board that may be required by future development/improvement activities within the proposed Expansion Area. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

C16. The comment notes that some waters of the State are “isolated” from waters of the U.S. and such determinations are made by the United States Army Corps of Engineers. Jurisdictional determinations may be necessary as future development is proposed. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.
C17. Specific permits would be determined on a project-by-project basis and individual development/improvement projects are proposed. The comment is noted and will be made available to the decision makers.

C18. The comment encourages early consultation with Water Board staff at the project level. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.
Susan Koleda  
Senior Planner  
City of Palmdale  
38250 N. Sierra Highway  
Palmdale, CA 93550

April 13, 2011

Re: DEIR for Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area – SCH No. 2010091073

Dear Ms. Koleda:

Thank you for giving us the opportunity to review the Draft EIR (SCH # 2010091073) for the Expansion Area Amendment to the Redevelopment Plans for the City of Palmdale. The Antelope Valley Mosquito & Vector Control District is a special district charged with protecting public health within most of the City limits of Palmdale and Lancaster. Our main objective is to keep mosquito populations at a minimum. We take this responsibility very seriously. As such, we have reviewed the above named project and ask consideration of the following points:

The document states that all development projects would have to comply with the City’s Master Drainage Plan, and require detention basins and other drainage plan facilities. These storm drain facilities generate different challenges when it comes to mosquito reproduction.

Numerous studies conducted by the California Department of Public Health, California Department of Transportation (Caltrans) and several Vector Control Districts showed that underground storm drain facilities often have debris and sediment deposits along the way, which will create small isolated puddles of water that can serve as mosquito habitat. Furthermore, underground drains and vault spaces provide safe harborage for adult resting and over-wintering mosquitoes.

I would like to stress again that the BMPs are notorious for breeding tremendous numbers of mosquitoes (see references below). All BMP structures should be easily and safely accessible to allow AVMVCD technicians to effectively monitor and if necessary, abate mosquitoes.
I commend you for your requirement to provide funding for long-term maintenance of these drainage structures. At the same time I would like to point out that customary annual or even biannual pumping of vault-type units is wholly inadequate to prevent mosquito reproduction. The weed growth in detention basins and ditches also has to be kept at a minimum to prevent mosquitoes as well as avoid them from turning into “wetland” areas.

I would like to emphasize that creating mosquito breeding sites constitutes a public health nuisance under the California Health and Safety Code §2060 and may result in potential fines of up to $1000 per day plus the cost of abatement until corrected.

We ask that you keep mosquito production and public health in mind when constructing flood control facilities that will be able to hold water for any amount of time. In the summer months mosquito reproduction is very rapid, and as we have seen in the past, can have fatal consequences for local residents.

Please feel free to contact me at 661-942-2917 ext. 206 or by email (Karen@avmosquito.org) for any further information.

Sincerely,

Karen S. Mellor
Entomologist / Operations Supervisor
Antelope Valley Mosquito & Vector Control District

References:
Managing Mosquitoes in Stormwater Treatment Devices

The Impact of New BMP Construction on Local Public Health Agencies
http://www.forester.net/sw_0203_stormwater.html

The Dark Side of Stormwater Runoff Management: Disease Vectors Associated with Structural BMPs
http://www.forester.net/sw_0203_dark.html

We Want You to Fight Stormwater Mosquitoes: A Call for Interagency and Interdisciplinary Collaboration – Stormwater Magazine

Checklist for Minimizing Vector Production Stormwater Management Structures
(Hardcopy attached)
D. RESPONSES TO COMMENTS FROM KAREN S. MELLOR, ENTOMOLOGIST/OPERATIONS SUPERVISOR, ANTELOPE VALLEY MOSQUITO & VECTOR CONTROL DISTRICT, DATED APRIL 13, 2011.

D1. The comment summarizes the purpose of the Antelope Valley Mosquito & Vector Control District and that they reviewed the Draft EIR. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

D2. The comment notes that storm drain facilities generate different challenges pertaining to mosquito production. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

D3. The comment notes that underground storm drain facilities can create conditions that serve mosquitoes. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

D4. The comment notes that BMPs breed mosquitoes and should be easily and safely accessible to AVMVCD to monitor and if necessary abate mosquitoes. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

D5. The comment notes that annual or bi-annual pumping of vault-type units is inadequate to prevent mosquito reproduction and that weed growth in detention basins and ditches needs to be kept to a minimum to avoid turning into “wetland” areas. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

D6. The comment notes the fines applicable for create mosquito breeding sites under the California Health and Safety Code. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

D7. The comment requests the City consider mosquito production when constructing flood control facilities that hold water for any amount of time. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.
STATE OF CALIFORNIA
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

April 14, 2011

Susan Koleda
City of Palmdale
38250 N. Sierra Highway
Palmdale, CA 93550

Subject: Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
SCH#: 2010091073

Dear Susan Koleda:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 13, 2011, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency
SCH# 2010091073
Project Title Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
Lead Agency Palmdale, City of

Type EIR Draft EIR
Description The project proposes an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area. Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan. The Merged Plan would allow the Community Redevelopment Agency of the City of Palmdale to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area. Permitted land uses within the Merged Project Area and proposed Expansion Area would be pursuant to those permitted by the General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended.

Lead Agency Contact
Name Susan Koleda
Agency City of Palmdale
Phone 661-267-5200
Fax
email
Address 38250 N. Sierra Highway
City Palmdale
State CA Zip 93550

Project Location
County Los Angeles
City Palmdale
Region
Lat/Long 34° 36' 10.75" N / 118° 5' 40.36" W
Cross Streets Sierra Highway, 45th St, Avenue M, and Avenue R-6
Parcel No. Multiple
Township 6N
Range 11,12W
Section Mult
Base SBB&M

Proximity to:
Highways SR 14, SR 138
Airports Palmdale Reg/Air Force Plant 42
Railways UP RR, Metrolink
Waterways Lake Palmdale
Schools Multiple
Land Use PLU: Residential, public, industrial, commercial, and vacant land
Z & GP: Multiple

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region S; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Department of Housing and Community Development; Regional Water Quality Control Bd., Region 6 (Victorville); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Note: Blanks in data fields result from insufficient information provided by lead agency.
Date Received  02/28/2011  Start of Review  02/28/2011  End of Review  04/13/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.
E. RESPONSES TO COMMENTS FROM SCOTT MORGAN, DIRECTOR, STATE OF CALIFORNIA GOVERNOR’S OFFICE OF PLANNING AND RESEARCH, STATE CLEARINGHOUSE AND PLANNING UNIT, DATED APRIL 14, 2011.

E1. The comment letter confirms the State Clearinghouse receipt of the Draft EIR and the City’s compliance with the State Clearinghouse review requirements for the Draft EIR pursuant to CEQA. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.
April 13, 2011

File No: 14-00.04-00
20-00.04-00

RECEIVED
APR 18 2011
PLANNING DEPARTMENT

Ms. Susan Koleda, Senior Planner
Planning Department
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Koleda:

Expansion Area Amendment to the
Redevelopment Plans for the Merged Project Area

This is in reply to your Notice of Availability of a Draft Environmental Impact Report, which was received by the County Sanitation Districts of Los Angeles County (Districts) on February 28, 2011. We offer the following comments:

1. Previous comments submitted by the Districts in correspondence dated October 21, 2010 (copy enclosed), to Mr. Richard Kite of the City of Palmdale, still apply to the subject project with the following updated information.  

2. The Palmdale Water Reclamation Plant currently processes an average flow of 9.5 million gallons per day (mgd) and the Lancaster Water Reclamation Plant currently processes an average flow of 13.7 mgd.  

3. Based on the information provided by you on Table 1-1, page 1-3 of the Executive Summary, Proposed Expansion Area – Growth Potential Over Existing Conditions (copy enclosed), the expected average wastewater flow from the project site is 4,173,450 gallons per day.  

4. Policy PS1.1.5, on page 1-57 of the Executive Summary states: “When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of backbone plans for roads, sewer, water, drainage and community facilities, prior to granting conditional approval of development applications.” Please also note, availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Please submit a copy of the project’s build-
out schedule to the undersigned to ensure the project is considered in planning future sewerage system relief and replacement projects.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

Enclosure

c: M. Tremblay
A. Howard
August 12, 2010

File No: 14-00.00-00

20-00.00-00

Mr. Stephen H. Williams, Executive Director
Community Redevelopment Agency
of the City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Dear Mr. Williams:

Preliminary Plan for the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area

The County Sanitation Districts of Los Angeles County (Districts) received the letter and preliminary plan for the subject project, forwarded by your office, on August 9, 2010. We offer the following comments regarding sewerage service:

1. Portions of the project area are outside the jurisdictional boundaries of the Districts and will require annexation into Districts Nos. 14 and 20 before sewerage service can be provided to that proposed development area. For a copy of the Districts’ Annexation Information and Processing Fees sheets, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the annexation procedure and fees, please contact Ms. Donna Kitt at extension 2708.

2. Because of the project's location, the flow originating from the proposed project would have to be transported to the Districts' trunk sewer by local sewer(s) that are not maintained by the Districts. If no local sewer lines currently exist, it is the responsibility of the developer to convey any wastewater generated by the project to the nearest local sewer and/or Districts' trunk sewer. The following is a list of Districts' trunk sewers that serve the project area.

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Size (dia.)</th>
<th>Design Capacity (mgd)</th>
<th>Peak Flow (mgd)</th>
<th>Last Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amargosa Creek Trunk Sewer</td>
<td>In Division Street at Columbia Way</td>
<td>15’’</td>
<td>3.9</td>
<td>0.5</td>
<td>2008</td>
</tr>
<tr>
<td>Trunk “C” Trunk Sewer</td>
<td>In Columbia Way east of 25th Street East</td>
<td>15’’</td>
<td>2.2</td>
<td>0.3</td>
<td>2008</td>
</tr>
<tr>
<td>Trunk “A” Trunk Sewer</td>
<td>In Avenue P at 25th Street East</td>
<td>24’’</td>
<td>5.8</td>
<td>0.4</td>
<td>2008</td>
</tr>
<tr>
<td>10th Street East Connection</td>
<td>In 10th Street East at Avenue R</td>
<td>8’’</td>
<td>0.5</td>
<td>0.1</td>
<td>2008</td>
</tr>
<tr>
<td>20th Street East Relief Trunk Sewer</td>
<td>In Lasker Avenue at Avenue R-4</td>
<td>12’’</td>
<td>1.8</td>
<td>0.4</td>
<td>2008</td>
</tr>
</tbody>
</table>

*million gallons per day
3. The Districts should review development and redevelopment projects within the City in order to determine whether or not sufficient trunk sewer capacity exists to serve each project and if Districts' facilities will be affected by the project. Please forward information on individual projects within the City to the undersigned.

4. The wastewater generated by the proposed project areas will be treated at the Palmdale Water Reclamation Plant, which has a design capacity of 15 mgd and currently processes an average flow of 9.5 mgd, or the Lancaster Water Reclamation Plant, which has a design capacity of 16 mgd and currently processes an average flow of 14.4 mgd.

5. In order to estimate the volume of wastewater the project will generate, a copy of the Districts' average wastewater generation factors is available on line. Go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2.

6. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

E-Signed by Adriana Raza
IFY authenticity with Approval

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar
C: D. Kitt

Doc #: 1653228.1
Table 1-1
Proposed Expansion Area – Growth Potential Over Existing Conditions

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Residential Dwelling Units</th>
<th>Non-Residential Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>341</td>
<td></td>
</tr>
<tr>
<td>Multiple-Family</td>
<td>1,391</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Residential</strong></td>
<td><strong>1,732</strong></td>
<td></td>
</tr>
<tr>
<td>Non-Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>1,121,208</td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td>16,642,741</td>
</tr>
<tr>
<td>Public Facilities</td>
<td></td>
<td>103,019</td>
</tr>
<tr>
<td>Air Force Plant 42</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td><strong>Subtotal Non-Residential</strong></td>
<td><strong>18,866,968</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,732</td>
<td>18,866,968</td>
</tr>
</tbody>
</table>

PROPOSED AMENDMENT

The primary purpose of proposed Expansion Area Amendment is to alleviate conditions of blight in the Expansion Area. The CRA will accomplish this task through the implementation of the programs described below. The CRA is not, however, limited to these programs and may choose to modify these programs and adopt additional programs during the term of existence of the Expansion Area pursuant to the Redevelopment Plan for the Merged Project Area. All public and private activities or undertakings pursuant to or in furtherance of the proposed Expansion Area Amendment, constitute a single project for purposes of CEQA.

Proposed Projects and Programs

The following projects and programs have been identified in the proceedings related to the proposed Expansion Area Amendment, if approved:

- **Public Facilities and Infrastructure Improvements.** Public facilities and infrastructure improvements would involve replacing and upgrading public facilities and infrastructure to support existing and future development. Potential improvements include, but are not limited to, assisting with parks and recreation/community centers, street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, infrastructure assessments/plans, utility improvements, flood control and culverts, streetscape and landscape, and noise attenuation.

- **Transportation.** Transportation improvements would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.
F. RESPONSES TO COMMENTS FROM ADRIANA RAZA, CUSTOMER SERVICE SPECIALIST, COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY, DATED APRIL 13, 2011.

F1. The comment states that previous comments submitted still apply to the project with updated information. The comment does not challenge any environmental issues pertaining to the Draft EIR. No response is necessary.

F2. The comment provides updated information for the Palmdale Water Reclamation Plant and Lancaster Water Reclamation Plant since issuance of the Notice of Preparation (NOP). In accordance with CEQA Guidelines Section 15125 (Environmental Setting) the Draft EIR includes a description of environmental conditions as they existed at the time the NOP was published. The environmental setting establishes the baseline conditions by which the lead agency determines whether an impact is significant. The Draft EIR identifies the average flow for the Palmdale and Lancaster Water Reclamation Plants provided by the County Sanitation Districts of Los Angeles County at the time the NOP was issued, in compliance with the CEQA Guidelines. However, it is noted that more current information is available and has been provided by the County Sanitation Districts of Los Angeles County. The information will be made available to the decision makers.

F3. The comment provides the expected average wastewater flow from the project site based upon the growth potential over existing conditions. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.

F4. The comment notes that the availability of sewer capacity depends upon the project size and timing of connection to the sewerage system. The availability of the trunk sewer capacity should be verified as the project advances. A copy of the project’s buildout scheduled is requested to ensure the project is considered in planning future sewerage system relief and replacement projects. The comment does not challenge any environmental issues pertaining to the Draft EIR. The comment is noted and will be made available to the decision makers. No response is necessary.
12.5 ERRATA FOR FINAL EIR

The Final EIR will be a revised document that incorporates all of the changes made to the Draft EIR following the public review period. Added or modified text is double underlined (example), while deleted text is struck out (example).

Page 1-2 of the Draft EIR will be revised in the Final EIR, as follows:

### 1.2 PROJECT SUMMARY

The Community Redevelopment Agency (CRA) of the City of Palmdale adopted a resolution on August 4, 2010 accepting and approving a Preliminary Plan for the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area (Expansion Area Amendment or Proposed Project). The boundaries of the area proposed to be added with the Expansion Area Amendment were established through the Preliminary Plan, which was considered and approved by the City’s Planning Commission at its meeting on July 8, 2010. On January 13, 2011, the Planning Commission amended the boundaries to correct a technical issue. The Preliminary Plan identifies the boundaries of the proposed Expansion Area to the Merged Project Area, summarizes conditions of blight within the proposed Expansion Area, and provides the CRA’s approach to planning, project implementation, and financing of long-term redevelopment activities in the Merged Project Area, as amended.

Page 1-19 and Page 5.10-14 of the Draft EIR will be revised in the Final EIR, as follows:

CUL-2 In the event that human remains are unearthed during excavation and grading activities of future development from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area project, all activity shall cease immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains.

Page 9-1 of the Draft EIR will be revised in the Final EIR, as follows:
GREENHOUSE GAS EMISSIONS

- Greenhouse Gas Emissions
  - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

- Consistency With Applicable GHG Plans, Policies or Regulations
  - Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

- Cumulative Greenhouse Gas Emissions and Consistency With Applicable GHG Plans, Policies or Regulations
  - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
  - Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

HYDROLOGY AND WATER QUALITY

- Groundwater
  - Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

- Cumulative Groundwater
  - Would the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?
10.0 References
10.0 REFERENCES

10.1 LEAD AGENCY

City of Palmdale
38250 Sierra Highway
Palmdale, California 93550

Ms. Jill Ward, Principal Economic Development Project Manager
Mr. Richard Kite, Planning Manager
Ms. Susan Koleda, Senior Planner

10.2 PREPARERS OF THE EIR

RBF Consulting
14725 Alton Parkway
Irvine, California 92618

Mr. Glenn Lajoie, AICP, Project Manager
Ms. Starla H. Barker, AICP, Project Manager/Environmental Analysis
Ms. Rita Garcia, Environmental Analysis
Mr. Eddie Torres, Air Quality, Greenhouse Gas Emissions and Noise Analysis
Ms. Kelly Chiene, Air Quality and Greenhouse Gas Emissions Analysis
Ms. Rebecca Kinney, Hydrology and Water Quality Analysis
Ms. Linda Bo, Graphics and Document Preparation

10.3 ORGANIZATIONS AND INDIVIDUALS CONSULTED

Rosenow Spevacek Group Inc.
309 West 4th Street
Santa Ana, California 92701

Ms. Tara Howard, Project Manager

Public Service Providers

Adriana Raza, Customer Service Specialist
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90601-1400
Keri Brady, Parks and Recreation Manager  
Tonya Madison, Secretary  
City of Palmdale Parks and Recreation Department  
38300 Sierra Highway  
Palmdale, California 93550

Don P. Ford, A/Captain  
County of Los Angeles Sheriff’s Department  
4700 Ramona Boulevard  
Monterey Park, California 91754

Deborah Hess, Local Public Affairs Region Manager  
Southern California Edison  
42060 10th Street West  
Lancaster, California 93534

Jeff Foster, Deputy Superintendent  
Antelope Valley Union High School District  
44811 N. Sierra Highway  
Lancaster, California 93536

10.4 BIBLIOGRAPHY


California Air Pollution Control Officers Association, CEQA and Climate Change, January 2008.


California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature (Executive Summary), March, 2006.

California Environmental Protection Agency, AB 1493 Briefing Package, 2008.


Center for Clean Air Policy, *Cost Effective GHG Reductions through Smart Growth and Improved Transportation Choices*, June 2009.

City of Palmdale, *General Plan*, various dates.

City of Palmdale, *Redevelopment Plans for Project Area No. 2, Project Area No. 3, and Project Area No. 4*.


Envicom Corporation, Biological Resources/Biota Study, Southeast Corner of 8th Street East & Rancho Vista Boulevard, November 9, 2007.


*Palmdale Water District 2005 Urban Water Management Plan.*


11.0 Mitigation Monitoring Program
11.0 MITIGATION MONITORING PROGRAM

Section 1.0 and Section 5.0 of this EIR identify the mitigation measures that will be implemented to reduce the impacts associated with the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area. The California Environmental Quality Act (CEQA) was amended in 1989 to add Section 21081.6, which requires a public agency to adopt a monitoring and reporting program for assessing and ensuring compliance with any required mitigation measures applied to proposed development. As stated in Public Resources Code Section 21081.6,

...the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted, or made a condition of project approval, in order to mitigate or avoid significant effects on the environment.

Public Resources Code Section 21081.6 provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final certification of the EIR.

The mitigation monitoring table below lists those mitigation measures that may be included as conditions of approval for the project. These measures correspond to those outlined in Section 1.0 and discussed in Section 5.0. To ensure that the mitigation measures are properly implemented, a monitoring program has been devised which identifies the timing and responsibility for monitoring each measure. The applicant/developer of specific future projects will have the responsibility for implementing the measures, and the various City of Palmdale departments will have the primary responsibility for monitoring and reporting the implementation of the mitigation measures.
## EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

### MITIGATION MONITORING PROGRAM

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
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<th>Action Indicating Compliance</th>
<th>Monitoring Agency</th>
<th>Verification of Compliance</th>
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<tr>
<td><strong>TRANSPORTATION AND CIRCULATION</strong></td>
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<tr>
<td>TR-1</td>
<td>Prior to Development Application Approval</td>
<td>Preparation and Approval of Traffic Impact Analysis/ Approval of Development Application</td>
<td>City of Palmdale Public Works Department/ City of Palmdale Planning Department</td>
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<tr>
<td><strong>AIR QUALITY</strong></td>
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<tr>
<td>AQ-1</td>
<td>Periodic Site Inspections</td>
<td>Ongoing During Construction</td>
<td>City of Palmdale Public Works Department</td>
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EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

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prevent excessive amounts of dust;

- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day;
- All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 35 miles per hour averaged over one hour) so as to prevent excessive amounts of dust;
- All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;
- The area disturbed by clearing, grading, earth-moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust; and

These control techniques shall be indicated on project grading plans. Compliance with this measure shall be subject to periodic site inspections by the City of Palmdale.

AQ-2 All trucks hauling excavated or graded material on-site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4), as amended, regarding the prevention of such material spilling onto public streets.

<table>
<thead>
<tr>
<th></th>
<th>Periodic Site Inspections</th>
<th>Ongoing During Construction</th>
<th>City of Palmdale Public Works Department</th>
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</table>
### EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

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<td>AQ-3</td>
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<td>Periodic Site Inspections</td>
<td>City of Palmdale</td>
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<td>Ongoing During Construction</td>
<td>Public Works</td>
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<td>Department</td>
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</table>
| During construction activities, excessive construction equipment and vehicle exhaust emissions shall be controlled by implementing the following procedures, as specified by the AVAQMD:  
- Properly and routinely maintain all construction equipment, as recommended by manufacturer manuals, to control exhaust emissions;  
- Shut down equipment when not in use for extended periods of time to reduce emissions associated with idling engines;  
- Encourage ride sharing and use of transit transportation for construction employee commuting to the project sites;  
- Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment; and  
- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak-hour of vehicular traffic on adjacent roadways. |                              |                              |

| AQ-4               |                             | Periodic Site Inspections    | City of Palmdale  |                           |
|                    |                             | Ongoing During Construction  | Public Works      |                           |
|                    |                             |                              | Department        |                           |
| The construction contractor shall adhere to AVAQMD District Rule 1113 (Architectural Coatings) to limit volatile organic compounds from architectural coatings. This rule specifies architectural coatings storage, clean up and labeling requirements. |                              |                              |

City of Palmdale
Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area Environmental Impact Report

Final • May 2011

Mitigation Monitoring Program
## EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

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<tr>
<td>AQ-5</td>
<td>Periodic Site Inspections</td>
<td>Ongoing During Construction</td>
<td>City of Palmdale Public Works Department</td>
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</tr>
</tbody>
</table>

### HAZARDS AND HAZARDOUS MATERIALS

**HAZ-1** A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II and Phase III ESA experience prior to land acquisition, demolition, or construction.

**HAZ-2** Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor.

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<tr>
<th>Monitoring Timing/Frequency</th>
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<th>Monitoring Agency</th>
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<tr>
<td>Prior to Land Acquisition and/or Construction Activities</td>
<td>Preparation and Approval of Phase I ESA/Issuance of Demolition/Grading Permits</td>
<td>City of Palmdale Planning Department</td>
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<tr>
<td>Prior to Demolition and/or Rehabilitation Activities</td>
<td>Preparation and Approval of an Asbestos Survey/Issuance of Demolition Permits</td>
<td>City of Palmdale Building and Safety Division</td>
</tr>
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<td>Mitigation Measure</td>
<td>Monitoring Timing/Frequency</td>
<td>Action Indicating Compliance</td>
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<tr>
<td>HAZ-3</td>
<td>During Demolition Activities</td>
<td>Closure/Concurrence Letter From Appropriate Regulatory Agency</td>
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<tr>
<td>HAZ-4</td>
<td>During Construction Activities</td>
<td>Closure/Concurrence Letter From Appropriate Regulatory Agency</td>
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<tr>
<td><strong>BIOLICAL RESOURCES</strong></td>
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<tr>
<td>BIO-1</td>
<td>A Biological Resources Assessment shall be conducted for future development projects in known or suspected natural habitat areas by a qualified Biologist, prior to an application being deemed complete, to determine the potential presence/absence of candidate, sensitive, or special status species, as well as the presence/absence of habitat that would support these species.</td>
<td>Prior to Development Application Approval</td>
<td>City of Palmdale Planning Department</td>
<td>Initials</td>
</tr>
<tr>
<td>BIO-2</td>
<td>If deemed necessary by the site-specific Biological Resources Assessment, a Focused Survey of the proposed development site shall be conducted by a qualified Biologist, prior to any ground disturbance, for sensitive plant and wildlife species that are federally- or state-listed as endangered or threatened, having moderate to high potential for occurrence on the proposed development site.</td>
<td>Prior to Ground Disturbance Activities</td>
<td>City of Palmdale Planning Department</td>
<td>Initials</td>
</tr>
<tr>
<td>BIO-3</td>
<td>If deemed necessary by the Biological Resources Assessment, a pre-construct Burrowing Owl Survey shall be conducted to determine the presence/absence of the burrowing owl on the proposed development site, before any ground disturbance occurs. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG and the Burrowing Owl Consortium (BOC). If burrowing owls are determined to be present on the development site, mitigation for potential impacts to owls</td>
<td>Prior to Ground Disturbance Activities</td>
<td>City of Palmdale Planning Department</td>
<td>Initials</td>
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<tr>
<td>BIO-4</td>
<td>Prior to Ground Disturbance Activities</td>
<td>Preparation and Approval of Focused Trapping Surveys/Issuance of Grading Permits</td>
<td>City of Palmdale Planning Department</td>
</tr>
<tr>
<td>BIO-5</td>
<td>Prior to Ground Disturbance Activities</td>
<td>Preparation and Approval of Focused Coast (San Diego) Horned Lizard Survey/Issuance of Grading Permits</td>
<td>City of Palmdale Planning Department</td>
</tr>
<tr>
<td>BIO-6</td>
<td>Prior to Ground Disturbance Activities</td>
<td>Issuance of Grading Permits</td>
<td>City of Palmdale Planning Department</td>
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</table>

shall follow the guidelines outlined by the BOC, including passive relocation during the non-breeding season.

BIO-4 If deemed necessary by the Biological Resources Assessment, focused Trapping Surveys shall be conducted to determine the presence/absence of the Mohave ground squirrel on the proposed development site prior to any ground disturbance. The Surveys shall be conducted according to the guidelines established by CDFG. If Mohave ground squirrel is determined to be present onsite, a State Permit shall be obtained pursuant to CDFG Code Section 2081.

BIO-5 If deemed necessary by the Biological Resources Assessment, a focused Coast (San Diego) horned lizard Survey shall be conducted to determine the presence/absence of this species on the proposed development site prior to any ground disturbance. The Survey shall be conducted by a qualified Biologist according to the standard protocol established by CDFG.

BIO-6 Impacts to migratory wildlife potentially impacted by future development shall be fully evaluated, including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds.
## EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

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<tr>
<td><strong>BIO-7</strong> Project construction activities (including disturbances to vegetation) shall take place outside of the breeding bird season (February 1 to September 1), in order to avoid take (including disturbances, which would cause abandonment of active nests containing eggs and/or young). If project construction activities cannot avoid the breeding season, nest surveys shall be conducted and active nests shall be avoided and provided with a minimum buffer, as determined by a biological monitor.</td>
<td>Prior to Issuance of Grading Permits/ Prior to Construction Activities</td>
<td>Issuance of Grading/ Construction Permits</td>
<td>City of Palmdale Planning Department</td>
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<tr>
<td><strong>CUL-1</strong> In the event that archeological and/or paleontological resources are unearthed during excavation and grading activities of any future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, the contractor shall cease all earth-disturbing activities within a 100-meter radius of the area of discovery and shall retain a qualified archaeologist and/or paleontologist to evaluate the significance of the finding and appropriate course of action. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. Work within the area of discovery shall resume only after the resource has been appropriately mitigated.</td>
<td>During Excavation and Grading Activities</td>
<td>Retain a Qualified Archaeologist and/or Paleontologist/ Compliance with CEQA Guidelines for Salvage Operation if resources are discovered</td>
<td>City of Palmdale Planning Department</td>
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**CULTURAL RESOURCES**

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<td>Issuance of Grading/ Construction Permits</td>
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<tr>
<td><strong>CUL-2</strong></td>
<td>During Excavation and Grading Activities</td>
<td>Findings by County Coroner/ Notification of NAHC if remains are of Native American Descent</td>
<td>City of Palmdale Planning Department/ County Coroner/ Native American Consultant</td>
</tr>
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</table>

In the event that human remains are unearthed during excavation and grading activities from future development and public facilities, and infrastructure and transportation improvements within the Expansion Area, all activity shall cease immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains.

Verification of Compliance

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<tr>
<th>Initials</th>
<th>Date</th>
<th>Remarks</th>
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Appendix A: Initial Study Checklist/Notice of Preparation
Notice of Preparation

TO: Agencies, Organizations, and Interested Parties

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, Section 15082(a) of the California Code of Regulations

The City of Palmdale is the lead agency under the California Environmental Quality Act (CEQA) in the preparation of the Environmental Impact Report (EIR) for the project identified below. We request the view of your agency as to the scope and content of the environmental information relevant to your agency’s statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by the City when considering any permits that your agency must issue or for any other approval for the project.

AGENCIES: The City requests your agency’s views on the scope and content of the environmental information relevant to your agency’s statutory responsibilities in connection with the proposed project, in accordance with California Code of Regulations, Title 14, Section 15082(b).

ORGANIZATIONS AND INTERESTED PARTIES: The City requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

PROJECT TITLE: Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area Program EIR

PROJECT LOCATION: The proposed Expansion Area consists of two non-contiguous areas (7,787 acres) and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6, within the City of Palmdale.

PROJECT DESCRIPTION: The Proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”), increasing the total acreage to 15,255 acres for the Merged Project Area. Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan (“Merged Plan”). If adopted, the Merged Plan would allow the Community Redevelopment Agency (CRA) of the City of Palmdale to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area.

Permitted land uses within the Merged Project Area and proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended. Existing development within the proposed Expansion Area includes residential, public, industrial, commercial, and vacant land uses. The proposed project includes the following projects and programs: public facilities and infrastructure improvements; transportation improvements; economic development activities and infill development; environmental remediation and brownfields revitalization; and affordable housing.

POTENTIAL ENVIRONMENTAL EFFECTS: The attached Initial Study describes the potential environmental effects of the proposed project. An EIR will be prepared to evaluate the project’s potential impacts on the environment and analyze alternatives.

PUBLIC REVIEW PERIOD: The City has made this Notice of Preparation (NOP) and Initial Study available for public review and comment pursuant to California Code of Regulations, Title 14, Section 15082(b). Your response must be sent as soon as possible but not later than 30 days after receipt of this notice. All comments must be submitted in writing to the address below. The comment period during which the City will receive comments on the Notice of Preparation is:
Starting Date: September 27, 2010       Ending Date: October 26, 2010

RESPONSES AND COMMENTS: Please indicate a contact person for your agency or organization and send your responses and comments to:

Richard Kite  
Assistant Director of Planning  
City of Palmdale  
38250 N. Sierra Highway  
Palmdale, California 93550

DOCUMENT AVAILABILITY: The NOP and Initial Study are available for public review at the locations listed below during regular business hours:

- Palmdale Planning Counter, 38250 N. Sierra Highway
- City of Palmdale Library, 700 East Palmdale Boulevard

In addition, the NOP and Initial Study are available on the City's website: http://www.cityofpalmdale.org

If you require additional information please contact Richard Kite at 661.267.5200

Date: 9-21-2010   Signature: Richard Kite

Title: Assistant Director of Planning
## City of Palmdale

### Initial Study Questionnaire

<table>
<thead>
<tr>
<th>Application No.:</th>
<th>Redevelopment Expansion Area Amendment</th>
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<tbody>
<tr>
<td>Name of Applicant:</td>
<td>City of Palmdale</td>
</tr>
<tr>
<td>Location of Project:</td>
<td>The proposed Expansion Area consists of two non-contiguous areas and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-4, within the City of Palmdale.</td>
</tr>
<tr>
<td>Existing General Plan:</td>
<td>Single Family Residential 2; Single Family Residential 3; Medium Residential; Multifamily Residential; Neighborhood Commercial; Office Commercial; Community Commercial; Downtown Commercial; Commercial Manufacturing; Industrial; Business Park; Airport and Related Uses; Specific Plan; Public Facility; and Open Space.</td>
</tr>
<tr>
<td>Proposed General Plan Land Use Designation:</td>
<td>No changes to the existing General Plan land use designations are proposed.</td>
</tr>
<tr>
<td>Existing Zoning:</td>
<td>R-1-7000, R-1-10,000, R-2, R-3, C-1, C-2, C-3, C-5, C-D MX, M-1, M-2, M-3, M-4, OR, PF, and SP.</td>
</tr>
<tr>
<td>Proposed Zoning:</td>
<td>No changes to the existing Zoning are proposed.</td>
</tr>
<tr>
<td>Present Land Use:</td>
<td>Residential, public, industrial, commercial, and vacant land uses.</td>
</tr>
</tbody>
</table>
I. APPLICABILITY OF THE INITIAL STUDY

A. Is the proposed action a “project” as defined by CEQA?

☒ Yes  ☐ No

1. If the project qualifies for one of the Categorical Exemptions listed in Section 6.C. of the City’s CEQA Guidelines, is there a reasonable possibility that the activity will have a significant effect due to special circumstances?  ☐ Yes  ☐ No  ☒ N/A

II. INITIAL STUDY REVIEW

A. Does the project require a 30-day State Clearinghouse review?

☒ Yes  ☐ No

1. The lead agency is a state agency.

2. There is a State “responsible agency” (any public agency which has discretionary approval over the project).

3. There is a State “trustee agency,” (California Department of Fish and Game, State Department of Parks and Recreation, University of California, and State Lands Commission).

4. The project is of Statewide or area wide significance including the following:

   a) A proposed local general plan, element, or amendment thereof for which an EIR was prepared.

   b) A project which would interfere with the attainment or maintenance of State or national air quality standards including:

      (1) A proposed residential development of more than 500 dwelling units.

      (2) A proposed shopping center or business establishment employing more than 1,000 persons or
encompassing more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

(4) A proposed hotel/motel development of more than 500 rooms.

(5) A proposed industrial, manufacturing or processing plant, or industrial park planned to house more than 1,000 persons occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

c) A project which would substantially affect sensitive wildlife habitats including, but not limited to, riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by Fish and Game Code Section 903.

d) A project which would interfere with attainment of regional water quality standards as stated in the approved area-wide waste water management plan.

III. PROJECT ASSESSMENT

A. Project Description: The existing Merged Project Area and proposed Expansion Area Amendment are located in the City of Palmdale, in northern Los Angeles County; refer to Exhibit 1, Regional Location. The Merged Project Area is currently comprised of several noncontiguous areas totaling 8,389 acres; refer to Exhibit 2, Redevelopment Project Areas.
INITIAL STUDY
EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

Regional Location
Exhibit 1

NOT TO SCALE

PACIFIC OCEAN
INITIAL STUDY

EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

Exhibit 2

Redevelopment Project Areas

NOT TO SCALE

Source: RSG.
The Community Redevelopment Agency (CRA) of the City of Palmdale adopted a resolution on August 4, 2010 accepting and approving a Preliminary Plan for the proposed Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area (“Expansion Area Amendment” or “Proposed Project”). The boundaries of the area proposed to be added with the Expansion Area Amendment were established through the Preliminary Plan, which was considered and approved by the City’s Planning Commission at its meeting on July 8, 2010. The Preliminary Plan identifies the boundaries of the proposed Expansion Area to the Merged Project Area, summarizes conditions of blight within the proposed Expansion Area, and provides the CRA’s approach to planning, project implementation, and financing of long-term redevelopment activities in the Merged Project Area, as amended.

The Proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area (“Expansion Area”), increasing the total acreage to 15,255 acres for the Merged Project Area. The proposed Expansion Area consists of two non-contiguous areas (Area A and Area B) and is generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6; refer to Exhibit 3, Proposed Expansion Area.

Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan (“Merged Plan”). If adopted, the Merged Plan would allow the CRA to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area.

Permitted land uses within the Merged Project Area and proposed Expansion Area would be pursuant to those permitted by the Palmdale General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended.
INITIAL STUDY
EXPANSION AREA AMENDMENT TO THE
REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA

Proposed Expansion Area

Exhibit 3

Source: RSG.
Proposed Projects and Programs

The following projects and programs have been identified in the proceedings related to the proposed Expansion Area Amendment, if approved:

Public Facilities and Infrastructure Improvements

Public facilities and infrastructure improvements would involve replacing and upgrading public facilities and infrastructure to support existing and future development. Potential improvements include, but are not limited to, assisting with parks and recreation/community centers, street and traffic control improvements, public safety improvements, acquisition of easements and public right of way, infrastructure assessments/plans, utility improvements, flood control and culverts, streetscape and landscape, and noise attenuation.

Transportation

Transportation improvements would address inadequate transportation infrastructure, such as circulation upgrades, grade separation, and street improvements to support housing, office, retail, and industrial development within the Expansion Area.

Economic Development Activities and Infill Development

Economic development activities to retain, expand, and attract businesses in the Expansion Area would complement the overall goals for urban revitalization of the area. The CRA would partner with property owners, tenants, and business owners to implement economic development activities. Potential activities include property owner, tenant and business owner participation; demolition, clearance and site preparation; relocation assistance; property acquisition and disposition; public and private cooperation; right of way acquisition; facade improvement programs; business outreach; Enterprise Zone administration; Foreign-Trade Zone administration; marketing and incentive business.

Direct activities proposed include the acquisition and assembly of adequately and inadequately sized lots for reuse and new development in order to facilitate private investment and reinvestment in the Expansion Area, demolition, site clearance, site preparation, and/or relocation assistance, as well as right-of-way acquisition.
Set aside funds such as loans and grants would be used to alleviate serious blighting conditions such as dilapidated roofs, faulty weather protection, code violations, and other physical blighting conditions or public improvements existing within the Expansion Area. Tax increment financing would be used for all public and private activities in furtherance of the redevelopment plan including, but not limited to, rehabilitation, business assistance, public improvements, and to improve facades in commercial and industrial areas in order to encourage new businesses to locate within the Expansion Area and to encourage private investment from existing businesses.

**Environmental Remediation and Brownfields Revitalization**

Projects and programs would be implemented to mitigate environmental threats to public health and safety, and transform contaminated, underutilized properties, otherwise known as “brownfields” into productive assets of the community. These programs would help to address existing blighting conditions by improving impaired property values, stimulating private investment, and reducing significant risks to the health, safety, and welfare of Expansion Area residents and workers located near contaminated properties.

**Affordable Housing**

The CRA would deposit 20 percent of the gross tax increment collected into the Low and Moderate Income Housing Fund for the creation and improvement of affordable housing. These funds would be used to increase, improve, and preserve the supply of low and moderate income housing in the community. Specific activities may include, but are not limited to, site acquisitions, developer subsidies for constructing affordable housing, identifying and developing infill housing, rehabilitating existing units and converting them to affordable units, and purchasing affordability covenants. Additionally, the City’s Neighborhood Improvement Program would be implemented within the Expansion Area.

Tax increment financing would be used to reduce/eliminate blighted factors in residential areas such as dilapidated structures, damaged and substandard exterior building materials, and homes lacking sufficient weatherproofing. The CRA would potentially purchase or provide loans to property owners to rehabilitate these structures and make them available to very low, low, and moderate income families. The CRA may be able to assemble vacant parcels and dilapidated buildings for a consolidated affordable housing development that would provide additional housing opportunities.
B. Description of the Project Site: Existing development within the Expansion Area includes residential, government, industrial, institutional, and commercial land uses. The largest use within the Expansion Area is the United Air Force Base Plant 42 (“Plant 42”). Plant 42 is a United States Government Owned, Contractor Operated (“GOCO”) aerospace technology and manufacturing plant comprised of eight sites and two active 12,000 foot runways, consisting of 5,416 acres. The facilities’ tenants are Lockheed Martin, Northrop-Grumman, and Boeing. NASA, located adjacent to Plant 42, is a frequent user of Plant 42 airport runways. Lockheed Martin also owns and operates additional facilities that are outside of and adjacent to the boundaries of Plant 42. Original construction of the structures located on Plant 42 began in the 1950s and have not been replaced to date. Many of the structures show signs of dilapidation, deterioration, and obsolescence.

The proposed boundaries of the Expansion Area also include the 377-acre site for the Palmdale Hybrid Power Plant (“Power Plant”) project. The Power Plant project is considered a related project. The City is seeking approval of a permit from the California Energy Commission to construct and operate the Power Plant, a 570-megawatt electric generating facility at the southeast corner of Avenue M and Sierra Highway. The proposed Power Plant combines clean burning natural gas-fired turbines with state-of-the-art renewable solar equipment. The California Energy Commission is the lead agency for this project under the California Environmental Quality Act (CEQA) and has a certified regulatory program under CEQA. Under its certified program, the Energy Commission is exempt from having to prepare an environmental impact report. Its certified program, however, does require environmental analysis of the project, including an analysis of alternatives and mitigation measures to minimize any significant adverse effect the project may have on the environment. Thus, environmental review and approval of the Power Plant project is not included as part of the proposed Expansion Area Amendment.

C. Surrounding Land Uses:

North: Primarily vacant land
East: Primarily vacant land and residential uses
South: Primarily vacant and commercial uses
West: Primarily industrial, office, and residential uses
D. Is the proposed project consistent with:

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E. Have any of the following studies been submitted?

- ☐ Geology Report
- ☐ Hydrology Report
- ☐ Soils Report
- ☐ Traffic Study
- ☐ Noise Study
- ☐ Biological Study
- ☐ Native Vegetation
  Preservation Plan
- ☐ Solid Waste
  Generation Report
- ☐ Public Services/
  Infrastructure Report
- ☐ Historical Report
- ☐ Archaeological Report
- ☐ Paleontological Study
- ☐ Line of Sight Exhibits
- ☐ Visual Analysis
- ☐ Slope Map
- ☐ Fiscal Impact Analysis
- ☐ Air Quality Report
- ☐ Hazardous Materials/
  Waste

(Studies may be reviewed by contacting the case planner at (661) 267-5200.)

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IV. DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

- I find that the proposed project MAY have a significant effect on the environment, and ENVIRONMENTAL IMPACT REPORT is required.

- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

This initial study was prepared by:

9-21-2010
Date

RBF Consulting
Richard Kite
Assistant Director of Planning

9-21-2010
Date

Laurie Lile
Assistant City Manager
V. EARLIER ANALYSIS

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or (mitigated) negative declaration. In this case, a discussion should identify the following:

A. Earlier analyses used.

City of Palmdale General Plan FEIR, (SCH No. 87120908) prepared for the City of Palmdale by Michael Brandman Associates, and certified by the Palmdale City Council (Resolution No. 93-10) on January 25, 1993. This document was prepared to analyze the potential impacts from full build-out of the City’s General Plan, including the provision of roadways, infrastructure, and development of urban uses. The General Plan EIR anticipated that significant impacts to air quality, loss of open space, seismic related risks, biological resources, jobs/housing balance, traffic impacts at 11 roadway links, and cumulative impacts to groundwater resources would occur with implementation of the City’s General Plan. All other impacts were found to be less than significant through the mitigation measures imposed under the EIR and implementation measures contained within the General Plan. A copy of this EIR is available for review at the City of Palmdale Planning Department.

Palmdale Transit Village Specific Plan/General Plan Amendment and Zone Change, FEIR, (SCH No. 2006081052) prepared for the City of Palmdale by RBF Consulting, and certified by the Palmdale City Council (Resolution No. CC 2007-174) on July 2, 2007. This EIR was prepared to analyze the potential impacts from development of the Palmdale Transit Village Specific Plan (Specific Plan). The Specific Plan proposed to develop a mixed-use transit oriented development in the vicinity of the Palmdale Transportation Center. The EIR concluded significant and unavoidable impacts to air quality (short and long-term) and traffic and circulation. All other impacts were found to be less than significant through the mitigation measures imposed under the EIR. A copy of this EIR is available for review at the City of Palmdale Planning Department.
B. Impacts adequately addressed.

Improvements analyzed in the General Plan FEIR include construction of full street improvements contained in the City’s Circulation Plan, bikeways, trails and parks as shown in the City’s Parks, Recreation and Trails Element, building out the planning area in accordance with the City’s Land Use Element, and the provision of public services to promote public health, safety, and welfare. Mitigation measures identified in the FEIR will reduce most of the impacts of future development under the proposed plan to a less than significant level. The majority of the policies and implementation programs in the General Plan serve as mitigation measures for the potential environmental impacts of build out under the plan. The EIR is available for review at the City of Palmdale Planning Department.

C. Mitigation Measures.

No effects were determined to be “Less than Significant with Mitigation Incorporated.” Further, no mitigation measures were incorporated or refined from earlier documents to address site-specific conditions for the proposed project.
VI. Evaluation of Environmental Impacts

A. Earth:

Based on the geotechnical or soils study for the project, review by the City’s Engineering Department, and/or the General Plan Update:

1. Soils

   a. Are there any areas of potential differential settlement on the project site which could significantly impact development of the proposed project?

      [x] [ ] [ ] [ ] [ ]

   b. Is the site in an area of high shrink/swell (hydrocompaction) potential which could significantly impact development of the proposed project?

      [x] [ ] [ ] [ ] [ ]

   c. Is the site in an area of potential subsidence?

      [x] [ ] [ ] [ ] [ ]

   d. Will the project result in a significant increase in wind or water erosion of soils, either on- or off-site?

      [x] [ ] [ ] [ ] [ ]

   e. Could the project result in siltation deposition, or erosion which may modify a stream channel, or adversely affect downstream flood control facilities?

      [x] [ ] [ ] [ ] [ ]

Substantiation for responses to A.1.a, b, c, d, and e.
According to the Palmdale General Plan Safety Element, portions of the proposed Expansion Area are located within areas having low and moderate soil expansion potential (Exhibit S-10); none to slight and moderate soil erosion potential (Exhibit S-11); and no data or unclassified and low to moderate potential for subsidence (Exhibit S-14). Further, much of the proposed Expansion Area is located in an area identified as having slow soil infiltration capacity (Exhibit S-12). Although the General Plan does not map areas of collapsible soils in the City, it is noted that collapsible (hydrocompactive) soils are known to occur within the City and generally desert soils are considered collapsible in the first few feet because of the dry alluvium that causes settlement when wet. Therefore, further analysis in the EIR is required to evaluate the potential of soil stability impacts.

2. Earthquakes

   Based on the Alquist-Priolo Earthquake Fault Zoning Map (as amended 1994) and California Division of Mines and Geology Special Publication 42 (1997), or the geotechnical report for the project site:

   a. Is the site in a fault rupture hazard zone? ☒ Yes ☐ No

      If yes:

      i. Is there an active or potentially active fault on the project site? ☐ Yes ☒ No

      ii. Does the project include a school, emergency or public facility, day care center, nursing home, or high rise building? ☐ Yes ☒ No

   b. Is the site in a zone subject to seismic ground shaking, ground failure, or liquefaction?

      ☒ ☐ ☐ ☐

Substantiation for responses to A.2.a. and b.
Initial Study
Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
Page 17

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<th>Potentially Significant Impact</th>
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Palmdale General Plan Exhibit S-3 (Earthquake Fault Zones) identifies the relative location of earthquake faults, Alquist-Priolo Fault Zones, and Seismic Shaking Zones that affect the City of Palmdale. The San Andreas Fault and the Cemetery Fault (a major fault trace of the San Andreas system) are located south of the southernmost portion of the project area. The Alquist-Priolo Special Studies Act identifies “special studies zones” for areas located within one-eighth mile of an active fault. According to the Official Maps of Alquist-Priolo Earthquake Fault Zones, published by the Department of Conservation, Geological Survey, the proposed Expansion Area’s southern boundary is located approximately 600 feet from identified fault traces. Special land use planning considerations are required for development within a “special studies zone.” Development is required to be regulated through zoning controls, geologic studies, or other measures. Further, the proposed Expansion Area is located within Seismic Shaking Zone 1, as identified by the Palmdale General Plan. Zone 1 represents an area that would be exposed to the most intense seismic ground shaking. Development within the proposed Expansion Area would be subject to intense ground shaking during a major earthquake along the San Andreas Fault. The intensity of the ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter and the geology of the area between the epicenter and the project area. Therefore, further analysis in the EIR is required to evaluate the potential impacts associated with earthquakes.

According to Palmdale General Plan Exhibit PS-1 (Aquifers and Groundwater Surface), the groundwater level within the proposed Expansion Area is in excess of 100 feet below the surface. Further, the USGS Seismic Hazard Zones Palmdale Quadrangle (October 17, 2003) does not identify the proposed Expansion Area as having the potential for liquefaction. Therefore, it is not anticipated that the proposed Expansion Area is subject to liquefaction. Potential impacts associated with liquefaction would be less than significant.

3. Slopes

Based on the U.S.G.S. Topographic Map, the slope map submitted for the project, the geotechnical report for the project, and/or a site inspection:
Initial Study
Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
Page 18

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<th>Potentially Significant Impact</th>
<th>Potentially Significant unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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a. Does the project site contain slopes of 10% or greater?

☐ ☐ ☐ ☒

b. Is any significant modification of major landforms proposed?

☐ ☐ ☐ ☒

c. Is the project in an area of landslide risk, or are landslides present on the project site?

☐ ☐ ☐ ☒

d. Will project grading create slopes, on- or off-site, that could be subject to landslides, mud slides, or erosion?

☐ ☐ ☐ ☒

Substantiation for responses to A.3.a, b, c, and d.

Palmdale General Plan Exhibit S-9 (Slope Categories) characterizes the proposed Expansion Area as having slopes of 15 percent or less. According to the USGS 7.5-Minute Palmdale Quadrangle (1974), the area contains no major landforms and is relatively flat, sloping slightly from the southwest to the northeast. The proposed Expansion Area does not contain slopes of 10 percent or greater. Further, the USGS Seismic Hazard Zones Palmdale Quadrangle (October 17, 2003) does not identify the proposed Expansion Area as having the potential for landslides. As there are no major landforms or risks associated with landslides, mudslides, or erosion, the proposed project would not result in a significant impact associated with slopes.

4. Quarry Zone

Based on a site inspection, the City's General Plan Land Use Map, and/or the Significant Gravel Resource Area Maps of the State Department of Mines and Geology:
a. Would development of the project impede the extraction of significant mineral resource deposits?

☐ ☐ ☒ ☒ ☒

Substantiation for responses to A.4.a.

According to Palmdale General Plan Exhibit LU-6 (Sand and Gravel Resource Area) and Exhibit ER-1B (Regionally Significant Construction Aggregate Resource Areas), the proposed Expansion Area is not located within a mineral resource extraction district or an area with existing quarry operations. The proposed Expansion Area does not provide a significant resource area for the extraction of significant mineral resource deposits. Potential impacts to a Quarry Zone would be less than significant.

B. Air:

1. Emissions

a. Will the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?

☒ ☐ ☐ ☒ ☒

b. Could the proposed project produce potentially toxic air emissions?

☐ ☒ ☒ ☒ ☒

c. Will the project potentially result in the creation of objectionable odors?

☐ ☒ ☒ ☒ ☒
d. Could the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?

[X] [☐] [☐] [☐]

Substantiation for responses to B.1.a, b, c, and d.

Future activities within the proposed Expansion Area may result in significant air emissions or contribute to local climate change. Effects on local air emissions, climate conditions, and global climate change will be further analyzed in the EIR. However, the proposed project is not anticipated to cause adverse effects related to a change in wind patterns.

Future activities within the proposed Expansion Area are not anticipated to produce potentially toxic air emissions. Air Force Plant 42 is located within the proposed Expansion Area. Although the types of research and development programs and individual site operations within Air Force Plant 42 may change over time, the Expansion Area Amendment anticipates that Air Force Plant 42 would continue to operate as a GOCO facility with similar operations as currently exist. As a Federal facility managing Federal defense programs, Air Force Plant 42 is generally governed through the National Environmental Policy Act (NEPA). Programs that impact the City directly are reviewed in compliance with CEQA. Significant changes or impacts are not anticipated.

Construction activity associated with future site-specific development may generate detectable odors from heavy-duty equipment exhaust. However, this impact would be short-term in nature and cease upon project completion. In addition, the land uses are not anticipated to create objectionable odors affecting a substantial number of people. Therefore, a less than significant impact would occur in this regard.
2. Greenhouse Gas Emissions

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

☒ ☐ ☐ ☐ ☐

Substantiation for responses to B.2.a.

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This “trapping” of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth’s atmosphere are water vapor, carbon dioxide (CO$_2$), methane (CH$_4$), nitrous oxide (N$_2$O), ozone (O$_3$), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF$_6$).

Direct GHG emissions include emissions from construction activities, area sources, and mobile (vehicle) sources. Typically, mobile sources make up the majority of direct emissions. Indirect GHG emissions are generated by incremental electricity consumption and waste generation. Electricity consumption is responsible for the majority of indirect emissions.

Regulatory Environment

In June 2005, Governor Schwarzenegger established California’s GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. California further solidified its dedication to
reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the State in 2007 with Executive Order S-1-07. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO$_2$ equivalent gram per unit of fuel energy sold in California.

In response to the transportation sector accounting for more than half of California’s CO$_2$ emissions, Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the State. Additionally, the California legislature enacted AB 32 (AB 32, Nuñez) in 2006 to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance.

CARB adopted the AB 32 Climate Change Scoping Plan (Scoping Plan) in December 2008 to achieve reductions in GHG emissions in California pursuant to the requirements of AB 32. The Scoping Plan contains the main strategies California will use to reduce GHG emissions. AB 32 requires California to reduce its GHG emissions by approximately 28 to 33 percent below business as usual. CARB has identified reduction measures to achieve this goal as set forth in the Scoping Plan.

Future development within the proposed Expansion Area could generate both direct and indirect GHG emissions that may have a significant impact on the environment. Therefore, this issue will be analyzed in more detail in the EIR to determine the significance of potential impacts.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

X ☐ ☐ ☐

Substantiation for responses to B.2.b.
The City of Palmdale does not have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Future development within the proposed Expansion Area has the potential to generate direct and indirect greenhouse gas emissions. Sources of greenhouse gases generated by future development include construction activities, traffic generation, energy consumption, and water usage. These impacts require additional analysis in the EIR to assess their level of significance.

C. Water:

1. Natural Streams, Springs, and Wetlands

   Based on the type of project, the U.S.G.S. Topographic Maps, the exhibits and studies submitted for the project, and/or a site inspection:

   a. Does the project site contain a blue-line stream, spring, seep, or wetland?
      
      ☒ ☐ ☐ ☐ ☐

   b. Will the project include changes in the course or volume of water in a local stream or wetland which require Department of Fish and Game or Army Corps of Engineers permits?
      
      ☒ ☐ ☐ ☐ ☐

   c. Will the project result in the loss of, or changes to, significant stands of riparian vegetation?
      
      ☒ ☐ ☐ ☐ ☐

Substantiation for responses to C.1.a, b, and c.

The USGS Palmdale Quadrangle map (1974) identifies Ana Verde Creek, a blue-line stream, extending from north of Avenue P across 8th Street East and then along the west side of the railroad tracks within the
proposed Expansion Area. The Anaverde Creek is an ephemeral wash that flows from south to north. Near the railroad, the creek is highly degraded as a result of previous construction of the railroad and associated maintenance activities. According to the Palmdale Transit Village Specific Plan FEIR, a section of the Anaverde Creek was previously channelized with riprap lined banks and channel bottom and the bottom is covered with silt deposits. In addition, a 630-foot box culvert storm drain and widening of 6th Street East were constructed as a part of the Palmdale Transportation Center in 2005. It is not anticipated that future development within the Palmdale Transit Village Specific Plan area would affect this section of the Anaverde Creek since all the improvements have already been constructed. However, potential development east of the railroad tracks, within the proposed Expansion Area, may impact the Creek, resulting in a potential impact to riparian vegetation. Therefore, further analysis in the EIR is required to evaluate the potential impacts associated with development near Anaverde Creek.

2. Other Surface Waters

Based on a site inspection and review of the Map of Aqueduct Facilities (Dept. of Water Resources, East Branch Hydrology Palmdale Area), and/or the General Plan:

If the project is adjacent to or near the California Aqueduct:

a. Could the project result in a significant increase in runoff of storm or nuisance water toward the aqueduct?

   ☐ ☐ ☐ ☒

b. Will the project be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools?

   ☐ ☐ ☐ ☒

Substantiation for responses to C.2.a and b.
The proposed Expansion Area is not located within the vicinity of the California Aqueduct. The California Aqueduct is located approximately two miles west and southwest of the Expansion Area. Future development within the proposed Expansion Area would potentially increase runoff beyond existing conditions. However, due to the location of the proposed Expansion Area, it is not anticipated that the project would result in a significant increase in runoff toward the aqueduct or be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools.

Based on a review of the General Plan and/or a site inspection:

(c) Is the project located above Lake Palmdale where urban runoff could significantly impact the lake?

☐ ☐ ☒ ☐

d. Is the project located in an inundation area below Lake Palmdale dams, or Littlerock Dam?

☐ ☐ ☒ ☐

Substantiation for responses to C.2.c and d.

The proposed Expansion Area is located above Lake Palmdale. However, due to the proximity of the lake, urban runoff from the Expansion Area would not significantly impact Lake Palmdale. Further, the portion of the Expansion Area closest to the lake is currently developed and therefore, increased runoff beyond existing conditions is not anticipated.

According to Palmdale General Plan Exhibit S-6 (Inundation Areas), a portion of the Expansion Area (Area B) is in the inundation area if a break occurs in the northern 20 percent of Lake Palmdale. If a break occurs, water would reach the proposed Expansion Area in approximately 3 hours and 45 minutes at a maximum flood elevation of approximately one foot. The portion of the proposed Expansion Area located within the inundation area is currently developed with residential uses. The City’s Emergency
Preparedness Plan identifies emergency response and recovery operations for disaster occurrences in the City. The Plan establishes evacuation procedures and routes in the event of an emergency. Implementation of the City’s Emergency Preparedness Plan in the event of flooding would reduce impacts to less than significant.

Based on review of the FIRM Map, the Master Plan of Drainage and/or review by the Department of Public Works/Engineering:

e. Is the site in an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments?

   
   

f. Will the project result in a significant increase in peak runoff that could increase flood hazard off-site?

   

   

g. Would development of the project impede the implementation of the City’s Master Plan of Drainage or Drainage Management Plan?

   

Substantiation for responses to C.2.e, f, and g.

As indicated on Flood Insurance Rate Maps (FIRM), portions of the proposed Expansion Area are located within Special Flood Hazard Areas (SFHAs) subject to inundation by the one percent annual chance flood. Although site-specific development is not currently proposed, future development within the proposed Expansion Area may occur within SFHAs. Further, it is anticipated that development/redevelopment activities would occur on vacant and/or underutilized land, increasing runoff from the project area beyond existing conditions. Therefore, further analysis in the EIR is required to evaluate the potential impacts associated with increased runoff and potential flood hazards.
The City of Palmdale Master Plan of Drainage (1988) studied six watersheds: Portal Ridge, Amargosa, Anaverde, Pearland, Littlerock and Big Rock. Changes within four of the six watersheds were addressed in the Master Plan of Drainage Update (August 1996). Specifically, the Master Plan of Drainage Update analyzes pre-development and ultimate development conditions for four watersheds: Portal Ridge, Amargosa, Anaverde, and Pearland. Based on the analysis, the Master Plan of Drainage Update recommends detention basins, regional drains, channels, and master plan facilities to serve ultimate development. Palmdale Municipal Code Chapter 3.38, Drainage Fee Requirements, requires development projects to mitigate the impacts of the development on the City’s drainage facilities. The City requires developers to construct drainage facilities in accordance with the City of Palmdale Master Plan of Drainage or pay drainage fees that will be used to construct drainage facilities pursuant to the Master Drainage Plan. The proposed Expansion Area does not propose site-specific development. As site specific development projects are proposed, they would be reviewed to ensure that drainage facilities are constructed in compliance with the City’s Master Plan of Drainage and/or payment of applicable drainage fees occur. Thus, the proposed project would not impede the implementation of the City’s Master Plan of Drainage or Drainage Management Plan.

h. Will any aspect of the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?

- [ ]
- [ ]

i. Will the project result in the significant alteration of the direction or rate of flow of groundwater?

- [ ]
- [ ]
- [ ]

Substantiation for responses to C.2.h and i.

The proposed Expansion Area Amendment would not result in discharge of materials into surface waters or in the alteration of surface water quality.
since no site specific development is proposed in conjunction with the proposed project. However, implementation of the proposed project is anticipated to result in new development and redevelopment activities within the proposed Expansion Area. Impacts to water quality would range over three different periods: (1) during site-specific earthwork and construction, when the potential for erosion, siltation, and sedimentation would be the greatest; (2) following construction on any specific site, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and (3) following completion of any site-specific projects undertaken in the proposed Expansion Area, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase. Impacts to water quality will be evaluated in the EIR.

The potential of future development altering the direction or rate of flow of ground water is highly unlikely given that groundwater is located in excess of 100 feet below the surface as shown on General Plan Exhibit PS-1 (Aquifers and Groundwater Surface).

Based on the type of project, project submittals, and exhibits, and/or a site inspection:

j. Could the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

k. Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?

Substantiation for responses to C.2.j and k.
The proposed Expansion Area is primarily located within the Palmdale Water District (PWD). A small portion of the Expansion Area is located within Los Angeles County Waterworks District 40-34 and Crestmore Village Water Company. PWD receives approximately 40 percent of its annual water from groundwater. Future development within the proposed Expansion Area would result in increased demand for water beyond existing conditions, potentially resulting in a change in the quantity of groundwater and/or a reduction in public water supplies. Potential impacts to water supply will be evaluated in the EIR.

D. Plant Life:

Based on a site inspection, the biological report, and/or the Native Vegetation Preservation Plan submitted for the project:

1. Is there a significant stand of desert vegetation on the site which will be adversely impacted by the project?
   
   - [x] Potentially Significant Impact
   - [ ] Potentially Significant Impact unless Mitigation Incorporated
   - [ ] Less Than Significant Impact
   - [ ] No Impact

2. Will the project result in a reduction of the numbers of any unique, rare, or endangered species of plants?
   
   - [x] Potentially Significant Impact
   - [ ] Potentially Significant Impact unless Mitigation Incorporated
   - [ ] Less Than Significant Impact
   - [ ] No Impact

3. Will the project result in the introduction of invasive, non-native species of plants into an area; or will the project create a barrier to the normal replenishment of existing native plant species?
   
   - [x] Potentially Significant Impact
   - [ ] Potentially Significant Impact unless Mitigation Incorporated
   - [ ] Less Than Significant Impact
   - [ ] No Impact

4. Will the project result in a significant reduction in acreage of native vegetation?
   
   - [x] Potentially Significant Impact
   - [ ] Potentially Significant Impact unless Mitigation Incorporated
   - [ ] Less Than Significant Impact
   - [ ] No Impact

Responses to D.1, 2, 3, and 4.
It is anticipated that future development within the Expansion Area would occur on currently undeveloped sites. Palmdale General Plan Exhibit ER-5 (Area Vegetation) identifies a small portion of the proposed Expansion Area near Air Force Plant 42 as having higher to excellent quality desert scrub. Additionally, based upon previous studies conducted within and surrounding the proposed Expansion Area, the potential exists for sensitive, rare, threatened, and/or endangered plant species to be located on individual sites. In addition, undeveloped sites may contain significant desert vegetation that would be removed as a result of future development. Potential impacts to plant life will be evaluated in the EIR.

E. Animal Life:

Based on the biology report submitted for the project and/or a site inspection: Will the proposal result in:

1. Will the project result in a significant loss of biological diversity?
   - [ ]
   - [ ]
   - [ ]
   - [ ]
   - [x]

2. Will the project result in the reduction of the numbers of any unique, rare, or endangered species of animals?
   - [x]
   - [ ]
   - [ ]
   - [ ]

3. Is the project located in a Significant Ecological Area where the introduction of animals associated with urbanization could adversely affect native species; or where the project will result in a barrier to the migration or movement of animals?
   - [ ]
   - [ ]
   - [ ]
   - [ ]
   - [x]

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2 Biological Resources/Biota Study, Southeast Corner of 8th Street East & Rancho Vista Boulevard, Envicom Corporation, November 9, 2007; and Biological Resources Report on APN 3022-026-005, Callyn D. Yorke, Ph.D., April 2007.
4. Will the project cause significant deterioration of, or loss of, existing fish or wildlife habitat?

[X] [ ] [ ] [ ]

Substantiation for responses E.1, 2, 3, and 4.

According to Palmdale General Plan Exhibit ER-5 (Area Vegetation), the proposed Expansion Area is not located within a Significant Ecological Area. Based upon previous studies conducted within and surrounding the proposed Expansion Area, the potential exists for unique, rare, threatened, and/or endangered species of animals as well as habitat suitable for sensitive wildlife species to be located on individual sites.³ It is anticipated that future development within the Expansion Area would occur on currently undeveloped sites. Therefore, future development within the Expansion Area could result in the removal or disturbance of unique, rare, or endangered species of animals or suitable habitat for wildlife. Potential impacts to animal life will be evaluated in the EIR.

F. Noise:

1. If the project is residential or noise sensitive, will it expose people to severe noise levels because it is located:

a. adjacent to the Freeway?

[ ] [ ] [ ] [X]

b. within 200 feet of the railroad?

[X] [ ] [ ] [ ]

³ Biological Resources Assessment Palmdale Business Center Project, Michael Brandman Associates, January 6, 2006; Biological Resources/Biota Study, Southeast Corner of 8th Street East & Rancho Vista Boulevard, Enviocom Corporation, November 9, 2007; and Results of Focused Presence/Absence Surveys for the Burrowing Owl on the Palmdale Transit Village Project Site, BonTerra Consulting, August 9, 2006.
The proposed Expansion Area is not located adjacent to a freeway. However, portions of the Expansion Area are located adjacent to the railroad tracks and existing arterials. Future development within the proposed Expansion Area may expose residential or other noise sensitive uses to severe noise levels associated with the railroad and arterials. Potential noise impacts to sensitive uses will be evaluated in the EIR.

2. Is the proposed project within the Plant 42 over-flight area, or the 65 CNEL boundary?

Substantiation for response to F.2.

Air Force Plant 42 is located within the proposed Expansion Area. Although the types of government research and development programs and individual site operations within Air Force Plant 42 may change over time, the Expansion Area Amendment anticipates that Air Force Plant 42 would continue to operate as a GOCO facility with similar operations as currently exist. As shown on Palmdale General Plan Exhibit S-17 (USAF Plant 42 Air Installation Compatible Use Zone (AICUZ)), the northeastern portion of the Expansion Area, located outside of Air Force Plant 42, is within Accident Potential Zone (APZ) I and II. Further, according to the Air Installation Compatible Use Zone Study for Air Force Plant 42 (2002) portions of the proposed Expansion Area are located within the Plant 42 over-flight area and within the 65 CNEL noise contour. Specifically, a portion of the Palmdale Hybrid Power Plant ("Power Plant") site is located within the 65 CNEL noise contour. As stated, the California Energy Commission is the lead agency for this project under CEQA and has a certified regulatory program under CEQA. Thus, environmental review and approval of the Power Plant project is not included as part of the proposed Expansion Area Amendment. However, any development
within this area would be required to be compatible with Air Force Plant 42 and land uses identified by the AICUZ study, which allow for industrial uses within the 65 noise contour. Thus, aircraft noise is not expected to result in a significant impact to uses within the Expansion Area that are located outside of Air Force Plant 42.

3. Will the project generate a noise level exceeding 65 CNEL at the project boundary after construction that could significantly impact an adjoining land use?

☒ ☐ ☐ ☐ ☐

Substantiation for response to F.3.

The proposed project does not involve any changes in land use or site-specific development at this time. Future development and redevelopment activities within the proposed Expansion Area would occur on vacant land as well as on infill sites that are adjacent to existing development. Although it is not anticipated that future development would generate a noise level exceeding 65 CNEL at the project boundary after construction, there is the potential for noise impacts to occur that may impact an adjoining use. Potential noise impacts will be evaluated within the EIR.

G. Light or Glare:

Based on the type of project, and/or project submittals and exhibits:

1. Will the project produce significant new sources of light or glare that would disturb neighboring uses or significantly change the light environment visible from other areas of the City?

☐ ☐ ☒ ☐ ☒

Substantiation for response to G.1.

The proposed Expansion Area and surrounding area consist of a mix of developed and vacant land. Developed lands currently contain various
forms of on-site and off-site lighting. Future development within the proposed Expansion Area would involve lighting for activity areas involving nighttime uses, parking, security lighting around structures, and interiors of buildings. Project implementation would result in development at a greater intensity than currently exists. However, due to the relatively flat topography of the area and the urbanized nature of the proposed Expansion Area and surrounding area, future development would not significant change the light environment visible from other areas of the City.

Site-specific development within the proposed Expansion Area would introduce new sources of light and glare that could potentially affect neighboring uses. Palmdale Municipal Code Chapter 8, Article 86 (Landscaping, Lighting, Screening and Walls) establishes lighting requirements for residential and non-residential uses. Specifically, Section 86.03 addresses lighting requirements. The lighting requirements address lighting fixtures within or abutting residential zones to avoid glare and light spread from adjacent uses. Further, limits for the heights of light standards are provided for commercial and industrial zones to ensure glare or light spillage does not occur in areas visible to the general public. Standards are also provided for lighting of outdoor recreation facilities, including limits on light intensity, off-site spill, and shielding. Security lighting is also required to be shielded and aimed at the designated area to avoid light spill. Requirements for overall lighting intensity are also identified. Individual site development proposals would be reviewed on a project-by-project basis to ensure that all proposed lighting meets the requirements of Section 86.03 of the Municipal Code. Compliance with the Municipal Code would ensure that new sources of light or glare do not disturb neighboring uses.

H. Land Use:

1. Will the project result in a substantial alteration of the present or planned land use of an area?

☐ ☑ ☑ ☑ ☑
2. Are adjoining or planned land uses greatly different from that of the proposed project so that a potentially substantial interface problem would be created?

☐ ☐ ☒ ☐

3. If the project is located within the Plant 42 AICUZ zone, does it conflict with the joint land use policies established for those zones?

☐ ☐ ☒ ☐

Substantiation for responses to H.1, 2, 3.

The Expansion Area Amendment does not propose any land use modifications. It is anticipated that future development within the proposed Expansion Area would be in accordance with existing General Plan land use designations. The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area. The proposed project would not result in substantial alteration of present or planned land uses within the area.

The proposed Expansion Area and surrounding areas consist of developed and vacant land. Site specific development is not proposed as part of the Expansion Area Amendment. Future site-specific development would be reviewed to determine its consistency with the Palmdale General Plan and Zoning Ordinance to ensure that substantial interface problems between existing and proposed land uses do not occur.

As stated, Air Force Plant 42 is located within the proposed Expansion Area. Additionally, a portion of the Expansion Area located outside of Air Force Plant 42 is within APZ I and APZ II. The project does not propose site specific development or land use modifications. Future development within APZ I or APZ II would be subject to land use restrictions and would be reviewed for compliance with the land use compatibility guidelines established in the Air Installation Compatible Use Zone Study for Air Force Plant 42. Therefore, impacts to land use would be less than significant.
I. Natural Resources:

1. Will the project result in a significant increase in the rate of use of any natural resources?

☐ ☑ ☑ ☑ ☑

2. Will the project result in the substantial depletion of any non-renewable natural resources?

☐ ☑ ☑ ☑ ☑

Substantiation for responses to I.1. and 2.

The Expansion Area Amendment does not propose any site specific development; therefore it would not involve any direct activities that would deplete natural resources. Future development within the proposed Expansion Area may require the use of stone, sand, gravel, wood, metals and combinations of these and similar natural materials (resources) in their construction. However, the harvesting/mining of such resources has been approved through other agencies and the resulting products are anticipated to be available for buildout of the project. Therefore, development within the Expansion Area would not result in adverse impacts to the environment due to a significant depletion of natural resources.

J. Risk of Upset:

1. Will the project result in a risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset condition?

☑ ☑ ☑ ☑ ☑

Substantiation for response to J.1.
According to the Department of Toxic Substances Control (DTSC) EnviroStor database, the State Water Resources Control Board (SWRCB) Geotracker database, and EPA’s CERCLIS database, a total of 45 active and closed hazardous waste sites and one Superfund Site are located within the proposed Expansion Area. A majority of the active sites are located within Plant 42. It is anticipated that Plant 42 would continue to operate and potentially expand programs at the site that may involve the use of hazardous substances. Although the proposed project would not modify existing land uses, future development and redevelopment activities outside of Plant 42 may involve commercial, industrial, and public facility uses that involve limited amounts of hazardous materials. Such use of hazardous materials, although not expected to pose a risk to people residing or working in the area, could result in potentially significant impacts. The potential for the proposed project to create a significant hazard to the public or the environment through the potential explosion or release of hazardous substances will be evaluated in the EIR.

2. Will the project result in possible interference with any emergency response plan or emergency evacuation plan?

☐ ☐ ☒ ☐

Substantiation for response to J.2.

Palmdale General Plan Exhibit S-1 (Evacuation Routes) identifies existing emergency evacuation routes within the City. Evacuation routes within and adjacent to the proposed Expansion Area include Avenue M, Avenue P, Palmdale Boulevard, Avenue R, and Sierra Highway. The proposed Expansion Area Amendment would include street and traffic control improvements. Traffic and circulation plans are subject to review and approval by the City. Furthermore, plans would be submitted to, among other agencies, the police and fire departments serving the proposed Expansion Area for review and approval. Review by these public agencies would ensure implementation of the proposed Expansion Area Amendment would not interfere with an emergency response plan or emergency evacuation plan. Additionally, emergency vehicles would continue to have access to project related and surrounding roadways.
upon completion of each project related to the proposed Expansion Area Amendment. Therefore, impacts would be less than significant in this regard.

3. Is the site included on any known State Hazardous Waste Site list?

[X] [ ] [ ] [ ]

Substantiation for response to J.3.

As stated above, the proposed Expansion Area includes a total of 45 active and closed hazardous waste sites and one Superfund Site. Of these sites, 32 are currently active. These listed sites could pose a health risk to people residing or working in the area. Impacts are considered potentially significant. This topic will be evaluated in the EIR.

4. Is the project within or adjacent to a high fire hazard area as shown in the General Plan, identified by the Los Angeles County Fire Department or based on a site inspection?

[ ] [ ] [ ] [X]

Substantiation for response to J.4.

The Proposed Expansion Area is not located within proximity to a high fire hazard area as shown on Exhibit S-16 (Wildfire Hazard Zones) of the Palmdale General Plan. Therefore, no wildfire hazard impact would occur with implementation of the proposed project.

K. Population:

Based on the type of project:

1. Will the project significantly alter the location, distribution, density, or growth rate of the human population of an area?

[X] [ ] [ ] [ ]
Future development and redevelopment activities within the proposed Expansion Area may result in an increase in population in the area beyond existing conditions. The Expansion Area Amendment may encourage redevelopment opportunities within the area, potentially resulting in public acquisition and/or redevelopment of property, which could alter the location of people within the area. The potential for the project to significantly alter the location, distribution, density, or growth rate of the human population of an area will be analyzed in the EIR.

L. Housing:

Based on the type of project?

1. Will the project create a significant demand for additional housing?

   ❑ ❑ ☒ ☒

2. Will the project result in displacement of people from existing housing on the site?

   ☒ ❑ ☐ ☐

Substantiation for responses to L.1. and 2.

Although the proposed Expansion Area Amendment may encourage development and redevelopment activities within the area, it is not anticipated that the project would create a significant demand for additional housing. Housing currently occurs in the proposed Expansion Area and development of additional residential uses in the area is anticipated.

The proposed project may encourage development and redevelopment activities in the area that may involve the displacement of existing residents. However, any persons displaced as a result of future development would be relocated and compensated in accordance with
applicable state housing law. Potential impacts from the displacement of people from existing houses will be further addressed in the EIR.

M. Transportation/Circulation:

Based on review of the type of project, project exhibits, a site inspection, and/or review of the Institute of Transportation Engineers, Trip Generation or the applicant’s traffic study:

1. What is the estimated number of average daily vehicle trips, and a.m. and p.m. peak hour trips, generated by the proposed project?

   _____ ADT: _____ a.m. peak, _____ p.m. peak

   Proposed project trip generation has not been determined at this time; refer to “Substantiation for responses to M.1. and 2” below.

2. Will the traffic generated by this project cause a reduction of Level of Service at an intersection or on a street segment?

   [x] [ ] [ ] [ ]

   Substantiation for responses to M.1. and 2.

Specific development and/or improvements are not currently proposed as part of the project. However, the proposed Expansion Area Amendment may facilitate new development and redevelopment activities within the area, resulting in increased traffic generation. Increased traffic generation may cause a reduction in Level of Service at an intersection or on a street segment. Impacts related to increased trip generation within the proposed Expansion Area will be evaluated in the EIR.

3. Does circulation within the project prevent the safe and orderly flow of people and vehicles, including emergency vehicles?

   [ ] [ ] [x] [ ]

   Substantiation for response to M.3.
The proposed Expansion Area Amendment involves an amendment to the Redevelopment Plan for the Merged Project Area to add 7,787 acres to the Merged Project Area. Specific development and/or improvements are not currently proposed. It is not anticipated that future development within the proposed Expansion Area would prevent the safe and orderly flow of people and vehicles within and through the area. Individual development projects would be reviewed on a case-by-case basis to ensure that safe and adequate flow and emergency access is provided. Impacts would be less than significant in this regard.

4. Will the project create or experience access problems as designed, or create any obstruction to the safe flow of traffic?

☐ ☐ ☒ ☐

Substantiation for response to M.4.

As stated, specific development and/or improvements are not currently proposed as part of the project. It is not anticipated that future development within the proposed Expansion Area would create access problems or an obstruction to the safe flow of traffic. Future development proposals would be evaluated on a case-by-case basis to ensure that adequate circulation and traffic flow is provided. Impacts would be less than significant in this regard.

5. Could the project result in a significant alteration to rail or air traffic?

☐ ☐ ☒ ☐

Substantiation for response to M.5.

The Expansion Area Amendment is not anticipated to result in a significant alteration to rail or air traffic. Future development within the proposed Expansion Area may result in an increase in demand for commuter rail service. Metrolink regularly reviews demand for rail service and makes adjustments as needed to accommodate such demand. Adequate provision of these services is expected to continue to occur.
6. Will the project create a significant shortage of parking?

☐ ☐ ☒ ☐

Substantiation for response to M.6.

The Expansion Area Amendment does not propose specific development within the area. Individual development projects would be reviewed on a case-by-case basis to ensure that adequate parking is provided for the use being proposed in compliance with the Chapter 8, Article 87 (Off-Street Parking) of the Palmdale Zoning Ordinance. Parking impacts are considered less than significant.

7. 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?

☒ ☐ ☐ ☐

Substantiation for response to M.7.

As stated, specific development and/or improvements are not currently proposed as part of the project. However, it is anticipated that the proposed Expansion Area Amendment may facilitate new development and redevelopment activities within the area, resulting in increased traffic generation, as well as a potential increase in the use of mass transit and other forms of non-motorized traffic. Potential impacts to the circulation system within the proposed Expansion Area will be analyzed in the EIR.

8. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

☒ ☐ ☐ ☐
Substantiation for response to M.8.

Existing transit facilities, including the Palmdale Transportation Center and bicycle and pedestrian facilities currently exist within the proposed Expansion Area. The proposed Expansion Area Amendment would not conflict with adopted policies, plans, or programs regarding these facilities. The proposed project may facilitate increased development and redevelopment activities within the area, potentially improving and expanding these uses within the area. The Expansion Area Amendment would facilitate implementation of the Palmdale Transit Specific Plan allowing for increased development and expansion of multi-modal transportation facilities near the Transportation Center. Impacts to public transit, bicycle, or pedestrian facilities would be less than significant.

N. Public Services:

1. Fire Protection

What is the roadway distance and location of the nearest fire station:

Fire Station 37 (38318 East 9th Street East) is located less than 0.25 mile from the project area.

a. Will the project result in a need for significant additional fire protection services?

☐ ☐ ☒ ☐

Substantiation for response to N.1. and N.1.a.

Future development and redevelopment activities in the proposed Expansion Area would increase demand for fire protection services. Increased demands may require improvements to existing facilities or increases in staffing and equipment. Palmdale Municipal Code Chapter 3.42, Fire Facilities Impact Fee Requirements, establishes fire facilities impact fees for residential and non-residential development for the purpose of constructing, expanding, or rehabilitating fire protection
facilities and equipment. Future development projects within the proposed Expansion Area would be required to pay the fees in effect at the time required, as identified in Chapter 3.42. Payment of the applicable fees would reduce potential impacts to fire protection services to a less than significant level. Impacts would be less than significant in this regard.

Impacts related to fire protection services will be evaluated in the EIR.

2. Police Protection

Are there any aspects of the project that would create a significant impact to police protection?

☒ ☐ ☐ ☐

Substantiation for response to N.2.

Future development and redevelopment activities in the proposed Expansion Area would increase demand for police protection services. Increased demands may require improvements to existing facilities or increases in staffing and equipment. Impacts related to police protection services will be evaluated in the EIR.

3. Schools

a. In what elementary and high school attendance area is the project?

Palmdale School District and Antelope Valley Joint Union High School District

b. Approximately how many students will the project generate?

The number of students that would potentially be generated by the proposed project has not been determined. Refer to the “Substantiation to response to N.3.c,” below.
c. Would the students generated by the project significantly contribute to the affected schools exceeding their designed capacity?

[ ] [ ] [ ] [ ]

Substantiation to response to N.3.c.

Future development and redevelopment activities in the proposed Expansion Area may result in a direct increase in the City’s population, thereby increasing demands on local school facilities. The growth associated with implementation of the proposed project would therefore result in potentially significant impacts to schools in the local area and will be evaluated in the EIR.

4. Parks and Recreation

Will the proposed project result in an impact on the quality or quantity of existing parks or recreational facilities, including trails or bicycle paths?

[ ] [ ] [ ] [ ]

Substantiation for response to N.4.

Potential population growth resulting from implementation of the proposed project could incrementally increase demand for park and other recreational facilities. The degree to which such population increases would adversely affect recreational facilities has not been determined. Impacts to park and recreation facilities will be evaluated in the EIR.

5. Public Facilities

Will the proposed project have a significant impact on maintenance of public facilities, including roads, drainage facilities, slopes, open space and trails?

[ ] [ ] [ ] [ ]
Substantiation for response to N.5.

The proposed Expansion Area Amendment may facilitate new development and redevelopment within the project area, including improvements to deteriorated public facilities and infrastructure, such as roads and drainage facilities. Future improvements would be planned and implemented to serve existing and future growth within the area. Although new and improved facilities are anticipated, increased development within the area would increase the need for maintenance of the new facilities as well as existing facilities. Palmdale Municipal Code Chapter 3.45, Public Facility Development Impact Fee Requirements, requires developers to pay a public facility development impact fee to meet the demand for public facilities created by development. The fees collected are used for constructing, expanding, or rehabilitating public facilities identified in the Public Facilities Impact Fee Final Report. Future development projects within the proposed Expansion Area would be required to pay the fees in effect at the time required, as identified in Chapter 3.45. Payment of the applicable fees would reduce potential impacts to public facilities to a less than significant level. Impacts would be less than significant in this regard.

6. Library Services

Will the project result in a significant impact to library services due to increased population?

![X] [ ] [ ] [ ]

Substantiation for response to N.6.

Potential population growth resulting from implementation of the proposed project could incrementally increase demand for library services. The degree to which such population increases would adversely affect library services has not been determined. Impacts related to library services will be evaluated in the EIR.
7. Other Governmental Services

Will the project have a significant impact on a government service or agency not listed above?

☒ ☐ ☐ ☒ ☐

Substantiation for response to N.7.

Although it is anticipated that future development and redevelopment activities would occur within the proposed Expansion Area, the potential development and associated population increase is not expected to significantly impact the ability of government service providers or agencies to provide services. Impacts would be less than significant in this regard.

O. Energy:

1. Will the project result in the use of substantial amounts of fuel or energy?

☒ ☐ ☐ ☐ ☐

2. Will the project result in a substantial increase in demands upon existing sources of energy, or require the development of new sources of energy?

☒ ☐ ☐ ☐ ☐

Substantiation for responses to O.1 and 2.

Future development and redevelopment activities within the proposed Expansion Area would involve the use of fuel and energy and potentially place increased demands upon existing sources of energy. The use and consumption of energy resources will be further evaluated in the EIR, as required by Appendix F of the CEQA Guidelines.
P. Utilities:

Will the proposal result in a need for new systems, or substantial alterations to the following utilities:

1. Power or natural gas?
   - ☒
   - ☐
   - ☐
   - ☐

2. Communications systems?
   - ☒
   - ☐
   - ☐
   - ☐

3. Water?
   - ☒
   - ☐
   - ☐
   - ☐

4. Sanitary sewer?
   - ☒
   - ☐
   - ☐
   - ☐

5. Solid waste disposal?
   - ☒
   - ☐
   - ☐
   - ☐

Substantiation for responses to P.1, 2, 3, 4, and 5.

Future development and redevelopment activities within the proposed Expansion Area would increase demand on existing utility systems that currently serve the project area. The degree to which these activities would adversely affect utility systems has not been determined. Impacts to utilities will be evaluated in the EIR.
Q. **Human Health:**

Based on the type of project:

1. Will the project create any health hazard or potential health hazard (excluding mental health)?

   ![Checkmark]

2. Will the project result in the exposure of people to potential health hazards?

   ![Checkmark]

Substantiation for responses Q.1. and 2.

Many types of businesses utilize various chemicals and hazardous materials, and their routine business operations involve chemicals that are manufactured, warehoused, or transported. Currently, there is a variety of existing business operations in the proposed Expansion Area that use, store, or transport hazardous substances, as well as generate hazardous waste. The possibility exists that future non-residential development in the proposed Expansion Area would require or engage in operations that involve hazardous materials, potentially creating a significant hazard to the public and/or environment. The secondary activities that would occur with non-residential and residential uses (e.g., building and landscape maintenance) would also involve the use of hazardous materials. Further analysis in the EIR is required to evaluate the project's potential to create a significant health hazard or expose people to potential health hazards.

R. **Aesthetics:**

1. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?

   ![Checkmark]
The proposed Expansion Area is not located near any scenic highways or within an area identified for scenic and recreational opportunities as shown on Exhibit ER-1 (Scenic Highways) and ER-9 (Regional Scenic and Recreational Opportunities) of the General Plan. Future development within the proposed Expansion Area would have an incremental impact on the loss of vacant/open space. However, development within the area is anticipated under the General Plan. Site-specific development would be reviewed to ensure that any new construction complies with the development standards established in the Palmdale Zoning Ordinance, which include setbacks, building heights, and landscaping, lighting, screening and walls to ensure visual impacts from existing developed areas are minimized. Further, in accordance with the General Plan Community Design Element, new structures would consist of high quality, aesthetically pleasing architectural design utilizing durable materials to enhance the project. Thus, future development would not result in the creation of an aesthetically offensive site open to public view.

S. Cultural Resources:

1. Will the proposal result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

   ☒ ☐ ☐ ☐

2. Will the proposal result in potential adverse impacts on paleontological resources?

   ☒ ☐ ☐ ☐

Substantiation for responses to S.1. and 2.

The proposed Expansion Area is located within an area identified as having the potential for historic structures, as shown on Exhibit ER-6 (Potential Historic Structures) of the General Plan. According to Exhibit ER-7 (Archaeological Sensitivity Map) of the General Plan, the proposed
Expansion Area is located within an area identified as having “Moderately High” sensitivity for archaeological resources. As shown on Exhibit ER-8 (Paleontological Sensitivity Map) of the General Plan, the project area is located within an area that is characterized as “Undetermined” for paleontological resources. Thus, future development within the proposed Expansion Area may result in potential adverse impacts to historic, archaeological, and/or paleontological resources. Potential impacts to these resources will be evaluated in the EIR.

T. Public Controversy:

1. Is the project or action environmentally controversial in nature or can it reasonably be expected to become controversial upon disclosure to the public?

☐ ☐ ☐ ☐ ☐

Substantiation for response to T.1.

The proposed project is not considered environmentally controversial in nature and is not anticipated to become controversial. Potential public controversy associated with environmental issues is not anticipated since a Program EIR will be prepared for the project and potential impacts will be analyzed. Opportunity for public review and comment on the Draft EIR will be provided during the 45-day public review period. This does not constitute a significant impact on the environment.

U. Agriculture and Forest Resources:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

☐ ☐ ☐ ☐ ☒
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

☐ ☐ ☐ ☒

Substantiation for response to U.1. and 2.

According to Important Farmland Maps for Los Angeles County, provided by the State of California Department of Conservation (September 2009), the proposed Expansion Area does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The proposed Expansion Area is not currently zoned for agricultural use and does not contain land within a Williamson Act contract. The project area is currently zoned for residential, commercial, mixed-use, industrial, open space and recreation and public facility uses. In addition, two Specific Plans occur within the proposed Expansion Area. The proposed Expansion Area Amendment would not involve a change to existing zoning.

3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

☐ ☐ ☐ ☒

4. Result in the loss of forest land or conversion of forest land to non-forest use?

☐ ☐ ☐ ☒

Substantiation for response to U.3 and 4.

The proposed Expansion Area is currently zoned for residential, commercial, mixed-use, industrial, open space and recreation and public facility uses. In addition, three Specific Plans occur within the proposed Expansion Area. There are no forest lands or timberlands within the
proposed Expansion Area. Further, the proposed Expansion Area does not contain any forest land and future development within the area would not result in the loss of forest land or conversion of forest land to non-forest use.

5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

☐ ☐ ☐ ☐ ☒

Substantiation for response to U. 5.

As stated, the project area is currently developed with urbanized uses. The surrounding area is also primarily urbanized and does not contain farmland or forest uses. The area is identified by the General Plan for urban uses and would not involve changes to the existing environment which would result in conversion of farmland or forests uses.

VII. MANDATORY FINDINGS OF SIGNIFICANCE

A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

☒ ☐ ☐ ☐ ☐

Substantiation for response A.

As previously identified, future development associated with the proposed Expansion Area Amendment could potentially result in adverse impacts to biological resources, including plants and wildlife, as well as cultural resources. Therefore, further analysis is required in the EIR, in order to determine whether project implementation could degrade, threaten to
eliminate or reduce significant biological resources, or eliminate important examples of the major periods of California history or prehistory.

B. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)

Substantiation for response to B.

A review of cumulative impacts for each issue area that has been identified as potentially significant will be required pursuant to Section 15130 of CEQA.

C. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Substantiation for response to C.

The proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Further review and analysis in the EIR is required.
Appendix B: Notice of Preparation Comments
STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit

Notice of Preparation

September 27, 2010

To: Reviewing Agencies

Re: Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area  
SCHA 2010091073

Attached for your review and comment is the Notice of Preparation (NOP) for the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Richard Kite  
City of Palmdale  
38250 N. Sierra Highway  
Palmdale, CA 93550

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Attachments  
cc: Lead Agency
Project Title: Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area

Lead Agency: Palmdale, City of

Type: NOP Notice of Preparation

Description: The project proposes an amendment to the Redevelopment Plans for the Merged Project Area to add 7.787 acres to the Merged Project Area. Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan. The Merged Plan would allow the Community Redevelopment Agency of the City of Palmdale to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area. Permitted land uses within the Merged Project Area and proposed Expansion Area would be pursuant to those permitted by the General Plan, Zoning Ordinance, and all other state and local building codes, guidelines, or specific plans as they now exist or are hereafter amended.

Lead Agency Contact
Name: Richard Kite
Agency: City of Palmdale
Phone: 661-267-5200
Fax
Address: 38250 N. Sierra Highway
City: Palmdale
State: CA
Zip: 93550

Project Location
County: Los Angeles
City: Palmdale
Region:
Cross Streets: Sierra Highway, 45th St, Avenue M, and Avenue R-6
Lat / Long: 34° 36’ N / 118° 40.36’ W
Parcel No.: multiple
Township: 6N
Range: 11,12W
Section: Multi
Base: SBB&M

Proximity to:
Highways: SR 14, SR 138
Airports: Palmdale Reg/Air Force Plant 42
Railways: UPRR, Metrolink
Waterways: Lake Palmdale
Schools: Multiple
Land Use: PLU: Residential, public, industrial, commercial, and vacant land
Z & GP: Multiple

Project Issues: Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic-Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies: Resources Agency; Department of Conservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Bd., Region 6 (Victorville)

Date Received: 09/27/2010
Start of Review: 09/27/2010
End of Review: 10/26/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.
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September 29, 2010

Mr. Richard Kite, Planner
CITY OF PALMDALE
38250 N. Sierra Highway
Palmdale, CA 93550

Re: SCH#2010091073 CEQA Notice of Preparation (NOP)n: draft Environmental Impact Report (DEIR) for the Expansion Area Amendment to the Redevelopment Plan for the Merged Project Area Project, located in the City of Palmdale; Los Angeles County, California.

Dear Mr. Kite:

The Native American Heritage Commission (NAHC) is the state ‘trustee agency’ pursuant to Public Resources Code §21070 for the protection and preservation of California’s Native American Cultural Resources. (Also see Environmental Protection Information Center v. Johnson (1985) 170 Cal App. 3rd 604). The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amendment effective 3/19/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a ‘significant effect’ requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as “a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance. The lead agency is required to assess whether the project will have an adverse impact on these resources within the ‘area of potential effect (APE), and if so, to mitigate that effect. State law also addresses Native American Religious Expression in Public Resources Code §5097.9.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural Resources were not identified within one-half mile radius of the ‘area of potential effect (APE)’. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the culturally affiliated tribes and interested Native American individuals that the NAHC recommends as ‘consulting parties,’ for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource. Also, the NAHC recommends that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the ‘Initial Study’ and in other phases of the environmental planning processes.

Furthermore the NAHC recommends that you contact the California Historic Resources Information System (CHRIS) of the Office of Historic Preservation (OHP), for archaeological data. (916) 650-7270.
Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 (f) et seq), 36 CFR Part 800.3, the President’s Council on Environmental Quality (CQ, 42 U.S.C. 4371 et seq.) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 Secretary of the Interior’s Standards for the Treatment of Historic Properties were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e).

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a ‘dedicated cemetery.’ Discussion of these should be included in your environmental documents, as appropriate.

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of “historic properties of religious and cultural significance” may also be protected under Section 304 of the NHPA or at the Secretary of the Interior’s discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (c.f. 42 U.S.C. 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is ‘advisory’ rather than mandated, the NAHC does request ‘lead agencies’ to work with tribes and interested Native American individuals as ‘consulting parties,’ on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the ‘electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC.

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or
medical examiner can determine whether the remains are those of a Native American. Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Culturally Affiliated Native American Contacts

Cc: State Clearinghouse
October 18, 2010

Richard Kite  
City of Palmdale-Planning Dept.  
38250 Sierra Highway  
Palmdale, CA 93550

Dear Mr. Kite:

Re: SCH# 2010091073; Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings.

The Commission is in receipt of the Notice of Completion & Environmental Document Transmittal-Notice of Preparation from the State Clearinghouse for the proposed expansion area to the redevelopment project merger near the Union Pacific Railroad Company and Metrolink’s Valley Line right-of-way. RCES staff is concerned that future projects may increase traffic volumes not only on streets and at intersections, but also at the nearby railroad crossings. This includes considering pedestrian circulation patterns/destinations with respect to the railroad right-of-way.

Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad right-of-way.

Language should be in place so that any traffic impact studies undertaken should also address traffic increase impacts over affected crossings and associated proposed mitigation measures.

If you have any questions, please contact Jose Pereyra, responsible Engineer at (213) 576 – 7083 or email at jfp déc puc.ca.gov, or me at rxm @ cpuc.ca.gov, 213-576-7078.

Sincerely,

Rosa Muñoz, PE  
Senior Utilities Engineer  
Rail Crossings Engineering Section  
Consumer Protection & Safety Division
October 21, 2010

File No: 14-00.04-00
20-00.04-00

RECEIVED
OCT 25 2010
PLANNING DEPARTMENT

Mr. Richard Kite, Assistant Director of Planning
Planning Department
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Dear Mr. Kite:

Expansion Area Amendment to the
Redevelopment Plans for the Merged Project Area Program

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on September 27, 2010. We offer the following comments regarding sewerage service:

1. Portions of the project area are outside the jurisdictional boundaries of the Districts and will require annexation into District No. 14 or District No. 20 before sewerage service can be provided to the proposed development area. For a copy of the Districts’ Annexation Information and Processing Fees sheets, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the annexation procedure and fees, please contact Ms. Donna Kitt at extension 2708.

2. The Districts own, operate, and maintain only the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City of Palmdale except to state that presently no deficiencies exist in Districts’ facilities that serve the City. For information on deficiencies in the City sewerage system you should contact the City Department of Public Works and/or the Los Angeles County Department of Public Works. However, availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as individual projects advances within the project area. Please submit a copy of the project’s build-out schedule to the undersigned to ensure the project is considered in planning future sewerage system relief and replacement projects.

3. The wastewater generated by the proposed project will be treated at the Palmdale Water Reclamation Plant (WRP), which has a design capacity of 15 mgd and currently processes an average flow of 9.3 mgd or the Lancaster WRP, which has a design capacity of 16 mgd and currently processes an average flow of 14.0 mgd.
4. In order to estimate the volume of wastewater the project will generate, a copy of the Districts’ average wastewater generation factors is available on line. Go to www.lacsid.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2.

5. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsid.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedures and fees, please contact the Connection Fee Counter at extension 2727.

6. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR: ar

c: D. Kitt
Subject: Notice of Preparation for the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area Program Environment Impact Report

Dear Mr. Kite:

The Department has received the Notice of Preparation for the proposed expansion area amendment which involves an amendment to the redevelopment plans for the merged project area to add 7,787 acres to the merged project area (expansion area) increasing the total acreage to 15,225 acres for the merged project area. If adopted the merged plan would allow the Community Redevelopment Agency of the City of Palmdale to acquire non-residential properties using eminent domain as a last resort to the expansion area. Permitted development within the merged project area and proposed expansion area would be pursuant to the Palmdale General Plan and other applicable plans and guidelines. Existing uses within the plan area include residential, public, industry, commercial and vacant land.

The proposed expansion area consists of two non-contiguous areas generally bounded by Sierra Highway to the west, 45 Street East to the east, Avenue M to the north and residential neighborhoods as far south as Avenue R-6, within the City of Palmdale in the Antelope Valley.

Future development within the expansion area could result in the removal or disturbance of unique, rare, threatened or endangered species of plants and animals or suitable habitat for wildlife. The project may also result in impacts to riparian resources.

The Department is California’s trustee agency for fish and wildlife resources, holding these resources in trust for the People of the State pursuant to various provisions of the California Fish and Game Code. (Fish & G. Code, §§ 711.7, subd. (a), 1802.) The Department submits these comments in that capacity under the California Environmental Quality Act (CEQA). (See generally Pub. Resources Code, §§ 21070, 21080.4.) Given its related permitting authority under the California Endangered Species Act (CESA) and Fish and Game Code section 1600 et seq., the Department also submits these comments likely as a responsible agency for the Project under CEQA. (Id., § 21069.)

The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks

Conserving California’s Wildlife Since 1870
forward to working with the Lead Agency to minimize impacts to fish and wildlife resources with a focus on these stressors. Please let Department staff know if you would like a copy of the plan to review.

To enable Department staff to adequately review and comment on the proposed project we recommend the following information, where applicable, be included in the draft Environmental Impact Report:

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats (Attachment 1, Plant Survey Protocol).
   a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities.
   b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use within the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.
   c. Endangered, rare, and threatened species to address should include all those species which meet the related definition under the CEQA Guidelines. (See Cal. Code Regs., tit. 14, § 15360.)
   d. The Department's Biogeographic Data Branch in Sacramento should be contacted at (916) 322-2493 (www.dfge.ca.gov/biogeodata) to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.
   a. CEQA Guidelines, Section 15126(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.
   b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas are of concern to the Department and should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic, outdoor artificial lighting, noise and vibration.
c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1-September 1) to avoid take (including disturbance) which would cause abandonment of active nests containing eggs and/or young. If project activities cannot avoid the breeding bird season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500-foot buffer for all active raptor nests).

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed with off-site mitigation locations clearly identified.

b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. An Incidental Take Permit from the Department may be required if the Project, Project construction, or any Project-related activity during the life of the Project will result in "take" as defined by the Fish and Game Code of any species protected by CESA. (Fish & G. Code, §§86, 2080, 2081, subd. (b), (c)) Early consultation with Department regarding potential
permitting obligations under CESA with respect to the Project is encouraged. (Cal. Code Regs., tit. 14, § 783.2, subd. (b).) It is imperative with these potential permitting obligations that the draft environmental impact report prepared by the Lead Agency in the present case includes a thorough and robust analysis of the potentially significant impacts to endangered, rare, and threatened species, and their habitat, that may occur as a result of the proposed Project. For any such potentially significant impacts the Lead Agency should also analyze and describe specific, potentially feasible mitigation measures to avoid or substantially lessen any such impacts as required by CEQA and, if an ITP is necessary, as required by the relevant permitting criteria prescribed by Fish and Game Code section 2081, subdivisions (b) and (c). The failure to include this analysis in the Project environmental impact report could preclude the Department from relying on the Lead Agency's analysis to issue an ITP without the Department first conducting its own, separate lead agency subsequent or supplemental analysis for the Project. (See, e.g., Cal. Code Regs., tit. 14, § 15096, subd. (f), Pub. Resources Code, § 21166.) For these reasons, the following information is requested:

a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses (including concrete channels, blue-line streams and other watercourses not designated as blue-line streams on USGS maps) and/or the canalization of natural and manmade drainages or conversion to subsurface drains. All wetlands and watercourses, whether intermittent, ephemeral, or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations. The Department recommends a minimum natural buffer of 100 feet from the outside edge of the riparian zone on each side of drainage.

a. The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) or a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department's issuance of an LSA is a project subject to CEQA. To facilitate issuance of an Agreement, if necessary, the environmental impact report should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Again, the failure to include this analysis in the Project environmental impact report could preclude the Department from relying on the Lead Agency's analysis to issue an Agreement without the Department first conducting its own, separate lead agency subsequent or supplemental analysis for the Project.
Thank you for this opportunity to provide comments. Please contact Mr. Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

[Signature]

Edmund Pert
Regional Manager
South Coast Region

Attachments

cc: Ms. Helen Birss, CDFG, Los Alamitos
Ms. Terri Dickerson, CDFG, Laguna Niguel
Ms. Kelly Schmoker, CDFG, Pasadena
Mr. Scott Harris, CDFG, Pasadena
State Clearinghouse, Sacramento
Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities

State of California
CALIFORNIA NATURAL RESOURCES AGENCY
Department of Fish and Game
November 24, 2008

INTRODUCTION AND PURPOSE

The conservation of special status native plants and their habitats, as well as natural communities, is integral to maintaining biological diversity. The purpose of these protocols is to facilitate a consistent and systematic approach to the survey and assessment of special status native plants and natural communities so that reliable information is produced and the potential of locating a special status plant species or natural community is maximized. They may also help those who prepare and review environmental documents determine when a botanical survey is needed, how future surveys may be conducted, what information to include in a survey report, and what qualifications to consider for surveyors. The protocols may help avoid delays caused when inadequate biological information is provided during the environmental review process; assist lead, trustee, and responsible reviewing agencies to make an informed decision regarding the direct, indirect, and cumulative effects of a proposed development, activity, or action on special status native plants and natural communities; meet California Environmental Quality Act (CEQA) requirements for adequate disclosure of potential impacts; and conserve public trust resources.

DEPARTMENT OF FISH AND GAME TRUSTEE AND RESPONSIBLE AGENCY MISSION

The mission of the Department of Fish and Game (DFG) is to manage California’s diverse wildlife and native plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. DFG has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations (Fish and Game Code §1802). DFG, as trustee agency under CEQA §15386, provides expertise in reviewing and commenting on environmental documents and makes protocols regarding potential negative impacts to those resources held in trust for the people of California.

Certain species are in danger of extinction because their habitats have been severely reduced in acreage, are threatened with destruction or adverse modification, or because of a combination of these and other factors. The California Endangered Species Act (CESA) provides additional protections for such species, including take prohibitions (Fish and Game Code §2050 et seq.). As a responsible agency, DFG has the authority to issue permits for the take of species listed under CESA if the take is incidental to an otherwise lawful activity; DFG has determined that the impacts of the take have been minimized and fully mitigated; and, the take would not jeopardize the continued existence of the species (Fish and Game Code §2001). Surveys are one of the preliminary steps to detect a listed or special status plant species or natural community that may be impacted significantly by a project.

DEFINITIONS

Botanical surveys provide information used to determine the potential environmental effects of proposed projects on all special status plants and natural communities as required by law (i.e., CEQA, CESA, and Federal Endangered Species Act (ESA)). Some key terms in this document appear in bold font for assistance in use of the document.

For the purposes of this document, special status plants include all plant species that meet one or more of the following criteria:

1 This document replaces the DFG document entitled “Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened and Endangered Plants and Natural Communities”
2 http://cesa.ca.gov/ceqa/
3 Adapted from the East Alameda County Conservation Strategy available at http://www.fws.gov/feas/PR00229_Species_Evaluation_EACOS.pdf

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• Listed or proposed for listing as threatened or endangered under ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR § 17.12).

• Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code § 2050 et seq.). A species, subspecies, or variety of plant is endangered when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors (Fish and Game Code § 2062). A plant is threatened when it is likely to become endangered in the foreseeable future in the absence of special protection and management measures (Fish and Game Code § 2067).

• Listed as rare under the California Native Plant Protection Act (Fish and Game Code § 1900 et seq.). A plant is rare when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code § 1901).

• Meet the definition of rare or endangered under CEQA § 15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
  • Species considered by the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (Lists 1A, 1B and 2);
  • Species that may warrant consideration on the basis of local significance or recent biological information;
  • Some species included on the California Natural Diversity Database's (CNDDB) Special Plants, Bryophytes, and Lichens List (California Department of Fish and Game 2008).

• Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA § 15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include species at the outer limits of its known range or a species occurring on an uncommon soil type.

Special status natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special status species or their habitat. The most current version of the Department's List of California Terrestrial Natural Communities indicates which natural communities are of special status given the current state of the California classification.

Most types of wetlands and riparian communities are considered special status natural communities due to their limited distribution in California. These natural communities often contain special status plants such as those described above. These protocols may be used in conjunction with protocols formulated by other agencies, for example, those developed by the U.S. Army Corps of Engineers to delineate jurisdictional wetlands or by the U.S. Fish and Wildlife Service to survey for the presence of special status plants.

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\(^4\) Refer to current online published lists available at: http://www.dfg.ca.gov/biotopodata.

\(^5\) In general, CNPS List 3 plants [plants about which more information is needed] and List 4 plants [plants of limited distribution] may not warrant consideration under CEQA §15380. These plants may be included on special status plant lists such as those developed by counties where they would be addressed under CEQA §15360. List 3 plants may be analyzed under CEQA §15360 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not. List 3 and 4 plants are also included in the California Natural Diversity Database's (CNDDB) Special Plants, Bryophytes, and Lichens List. Refer to the current online published list available at: http://www.dfg.ca.gov/biotopodata.) Data on Lists 3 and 4 plants should be submitted to CNDDB. Such data aids in determining or revising priority ranking.

\(^6\) Refer to current online published lists available at: http://www.dfg.ca.gov/biotopodata.

\(^7\) http://www.dfg.ca.gov/biotopodata/vocal/epidet/habitatlist.pdf. The rare natural communities are asterisked on this list.

\(^8\) http://www.wetlands.com/regs/tpg02e.htm


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BOTANICAL SURVEYS

Conduct botanical surveys prior to the commencement of any activities that may modify vegetation, such as clearing, mowing, or ground-breaking activities. It is appropriate to conduct a botanical field survey when:

- Natural (or naturalized) vegetation occurs on the site, and it is unknown if special status plant species or natural communities occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
- Special status plants or natural communities have historically been identified on the project site; or
- Special status plants or natural communities occur on sites with similar physical and biological properties as the project site.

SURVEY OBJECTIVES

Conduct field surveys in a manner which maximizes the likelihood of locating special status plant species or special status natural communities that may be present. Surveys should be floristic in nature, meaning that every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status. "Focused surveys" that are limited to habitats known to support special status species or are restricted to lists of likely potential species are not considered floristic in nature and are not adequate to identify all plant taxa on site to the level necessary to determine rarity and listing status. Include a list of plants and natural communities detected on the site for each botanical survey conducted. More than one field visit may be necessary to adequately capture the floristic diversity of a site. An indication of the prevalence (estimated total numbers, percent cover, density, etc.) of the species and communities on the site is also useful to assess the significance of a particular population.

SURVEY PREPARATION

Before field surveys are conducted, compile relevant botanical information in the general project area to provide a regional context for the investigators. Consult the CNDDB10 and BIOS11 for known occurrences of special status plants and natural communities in the project area prior to field surveys. Generally, identify vegetation and habitat types potentially occurring in the project area based on biological and physical properties of the site and surrounding ecoregion12, unless a larger assessment area is appropriate. Then, develop a list of special status plants with the potential to occur within these vegetation types. This list can serve as a tool for the investigators and facilitate the use of reference sites; however, special status plants on site might not be limited to those on the list. Field surveys and subsequent reporting should be comprehensive and floristic in nature and not restricted to or focused only on this list. Include in the survey report the list of potential special status species and natural communities, and the list of references used to compile the background botanical information for the site.

SURVEY EXTENT

Surveys should be comprehensive over the entire site, including areas that will be directly or indirectly impacted by the project. Adjoining properties should also be surveyed where direct or indirect project effects, such as those from fuel modification or herbicide application, could potentially extend offsite. Pre-project surveys restricted to known CNDDB rare plant locations may not identify all special status plants and communities present and do not provide a sufficient level of information to determine potential impacts.

FIELD SURVEY METHOD

Conduct surveys using systematic field techniques in all habitats of the site to ensure thorough coverage of potential impact areas. The level of effort required per given area and habitat is dependent upon the vegetation and its overall diversity and structural complexity, which determines the distance at which plants can be identified. Conduct surveys by walking over the entire site to ensure thorough coverage, noting all plant taxa.

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10 Available at [http://www.cnfg.ca.gov/biologydata/cnndb](http://www.cnfg.ca.gov/biologydata/cnndb)
11 [http://www.bios.cnfg.ca.gov/](http://www.bios.cnfg.ca.gov/)
12 [Ecological Subregions of California](http://www.fs.fed.us/r5/projects/ecoregions/ect.htm)
observed. The level of effort should be sufficient to provide comprehensive reporting. For example, one person-hour per eight acres per survey date is needed for a comprehensive field survey in grassland with medium diversity and moderate terrain\textsuperscript{13}, with additional time allocated for species identification.

**TIMING AND NUMBER OF VISITS**

Conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting. Space visits throughout the growing season to accurately determine what plants exist on site. Many times this may involve multiple visits to the same site (e.g., in early, mid, and late-season for flowering plants) to capture the floristic diversity at a level necessary to determine if special status plants are present\textsuperscript{14}. The timing and number of visits are determined by geographic location, the natural communities present, and the weather patterns of the year(s) in which the surveys are conducted.

**REFERENCE SITES**

When special status plants are known to occur in the type(s) of habitat present in the project area, observe reference sites (nearby accessible occurrences of the plants) to determine whether those species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community.

**USE OF EXISTING SURVEYS**

For some sites, floristic inventories or special status plant surveys may already exist. Additional surveys may be necessary for the following reasons:

- Surveys are not current\textsuperscript{15}; or
- Surveys were conducted in natural systems that commonly experience year-to-year fluctuations such as periods of drought or flooding (e.g., vernal pool habitats or riparian systems); or
- Surveys are not comprehensive in nature; or fire history, land use, physical conditions of the site, or climatic conditions have changed since the last survey was conducted\textsuperscript{16}; or
- Surveys were conducted in natural systems where special status plants may not be observed if an annual above-ground phase is not visible (e.g., flowers from a bulb); or
- Changes in vegetation or species distribution may have occurred since the last survey was conducted, due to habitat alteration, fluctuations in species abundance and/or seed bank dynamics.

**NEGATIVE SURVEYS**

Adverse conditions may prevent investigators from determining the presence of, or accurately identifying, some species in potential habitat of target species. Disease, drought, predation, or herbivory may preclude the presence or identification of target species in any given year. Discuss such conditions in the report.

The failure to locate a known special status plant occurrence during one field season does not constitute evidence that this plant occurrence no longer exists at this location, particularly if adverse conditions are present. For example, surveys over a number of years may be necessary if the species is an annual plant having a persistent, long-lived seed bank and is known not to germinate every year. Visits to the site in more

\textsuperscript{13} Adapted from U.S. Fish and Wildlife Service kit for survey guidelines available at www.fws.gov/sacramento/Envir Doc/Sept04 no protocol.pdf

\textsuperscript{14} U.S. Fish and Wildlife Service Survey Guidelines available at http://www.fws.gov/sacramento/astprotocol.htm

\textsuperscript{15} Habitats, such as grasslands or desert plant communities that have annual and short-lived perennial plants as major floristic components may require yearly surveys to accurately document baseline conditions for purposes of impact assessment. In forested areas, however, surveys at intervals of five years may adequately represent current conditions. For forested areas, refer to "Guidelines for Conservation of Sensitive Plant Resources Within the Timber Harvest Review Process and During Timber Harvesting Operations", available at https://dfg.ca.gov/post/d2012/07/15/Protocols_Guidelines_July2005.pdf

than one year increase the likelihood of detection of a special status plant especially if conditions change. To further substantiate negative findings for a known occurrence, a visit to a nearby reference site may ensure that the timing of the survey was appropriate.

REPORTING AND DATA COLLECTION

Adequate information about special status plants and natural communities present in a project area will enable reviewing agencies and the public to effectively assess potential impacts to special status plants or natural communities and will guide the development of minimization and mitigation measures. The next section describes necessary information to assess impacts. For comprehensive, systematic surveys where no special status species or natural communities were found, reporting and data collection responsibilities for investigators remain as described below, excluding specific occurrence information.

SPECIAL STATUS PLANT OR NATURAL COMMUNITY OBSERVATIONS

Record the following information for locations of each special status plant or natural community detected during a field survey of a project site.

- A detailed map (1:24,000 or larger) showing locations and boundaries of each special status species occurrence or natural community found as related to the proposed project. Mark occurrences and boundaries as accurately as possible. Locations documented by use of global positioning system (GPS) coordinates must include the datum in which they were collected;

- The site-specific characteristics of occurrences, such as associated species, habitat and microhabitat, structure of vegetation, topographic features, soil type, texture, and soil parent material. If the species is associated with a wetland, provide a description of the direction of flow and integrity of surface or subsurface hydrology and adjacent off-site hydrological influences as appropriate;

- The number of individuals in each special status plant population as counted (if population is small) or estimated (if population is large);

- If applicable, information about the percentage of individuals in each life stage such as seedlings vs. reproductive individuals;

- The number of individuals of the species per unit area, identifying areas of relatively high, medium and low density of the species over the project site; and

- Digital images of the target species and representative habitats to support information and descriptions.

FIELD SURVEY FORMS

When a special status plant or natural community is located, complete and submit to the CNDDB a California Native Species (or Community) Field Survey Form or equivalent written report, accompanied by a copy of the relevant portion of a 7.5 minute topographic map with the occurrence mapped. Present locations documented by use of GPS coordinates in map and digital form. Data submitted in digital form must include the datum in which it was collected. If a potentially undescribed special status natural community is found on the site, document it with a Rapid Assessment or Relevé form and submit it with the CNDDB form.

VOUCHER COLLECTION

Voucher specimens provide verifiable documentation of species presence and identification as well as a public record of conditions. This information is vital to all conservation efforts. Collection of voucher specimens should

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18 NAD83, NAD27 or WGS84

19 [http://www.dfg.ca.gov/bio/fgdata](http://www.dfg.ca.gov/bio/fgdata)

20 NAD83, NAD27 or WGS84

21 [http://www.dfg.ca.gov/bio/fgdata/vagc/00vag_publications_protocols.asp](http://www.dfg.ca.gov/bio/fgdata/vagc/00vag_publications_protocols.asp)
be conducted in a manner that is consistent with conservation ethics, and is in accordance with applicable state and federal permit requirements (e.g. incidental take permit, scientific collection permit). Voucher collections of special status species (or suspected special status species) should be made only when such actions would not jeopardize the continued existence of the population or species.

Deposit voucher specimens with an indexed regional herbarium\(^{22}\) no later than 60 days after the collections have been made. Digital imagery can be used to supplement plant identification and document habitat. Record all relevant permittee names and permit numbers on specimen labels. A collecting permit is required prior to the collection of State-listed plant species.\(^{23}\)

**BOTANICAL SURVEY REPORTS**

Include reports of botanical field surveys containing the following information with project environmental documents:

- **Project and site description**
  - A description of the proposed project;
  - A detailed map of the project location and study area that identifies topographic and landscape features and includes a north arrow and bar scale; and,
  - A written description of the biological setting, including vegetation\(^ {24}\) and structure of the vegetation; geological and hydrological characteristics; and land use or management history.

- **Detailed description of survey methodology and results**
  - Dates of field surveys (indicating which areas were surveyed on which dates), name of field investigator(s), and total person-hours spent on field surveys;
  - A discussion of how the timing of the surveys affected the comprehensiveness of the survey;
  - A list of potential special status species or natural communities;
  - A description of the area surveyed relative to the project area;
  - References cited, persons contacted, and herbaria visited;
  - Description of reference site(s), if visited, and phenological development of special status plant(s);
  - A list of all taxa occurring on the project site. Identify plants to the taxonomic level necessary to determine whether or not they are a special status species;
  - Any use of existing surveys and a discussion of applicability to this project;
  - A discussion of the potential for a false negative survey;
  - Provide detailed data and maps for all special plants detected. Information specified above under the headings "Special Status Plant or Natural Community Observations," and "Field Survey Forms," should be provided for locations of each special status plant detected;
  - Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms should be sent to the CNDDB and included in the environmental document as an Appendix. It is not necessary to submit entire environmental documents to the CNDDB; and,
  - The location of voucher specimens, if collected.

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\(^{23}\) Refer to current online published lists available at [http://www.data.ca.gov/biogeodata](http://www.data.ca.gov/biogeodata).

\(^{24}\) A vegetation map that uses the National Vegetation Classification System ([http://herbv.jedo.gov/vpsweb/ncve3.html](http://herbv.jedo.gov/vpsweb/ncve3.html)), for example A Manual of California Vegetation, and highlights any special status natural communities. If another vegetation classification system is used, the report should reference the system, provide the reason for its use, and provide a crosswalk to the National Vegetation Classification System.
Assessment of potential impacts

- A discussion of the significance of special status plant populations in the project area considering nearby populations and total species distribution;
- A discussion of the significance of special status natural communities in the project area considering nearby occurrences and natural community distribution;
- A discussion of direct, indirect, and cumulative impacts to the plants and natural communities;
- A discussion of threats, including those from invasive species, to the plants and natural communities;
- A discussion of the degree of impact, if any, of the proposed project on unoccupied, potential habitat of the species;
- A discussion of the immediacy of potential impacts; and,
- Recommended measures to avoid, minimize, or mitigate impacts.

QUALIFICATIONS

Botanical consultants should possess the following qualifications:

- Knowledge of plant taxonomy and natural community ecology;
- Familiarity with the plants of the area, including special status species;
- Familiarity with natural communities of the area, including special status natural communities;
- Experience conducting floristic field surveys or experience with floristic surveys conducted under the direction of an experienced botanist;
- Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
- Experience with analyzing impacts of development on native plant species and natural communities.

SUGGESTED REFERENCES


California Natural Diversity Database. Most recent version. Special vascular plants, bryophytes and lichens list. Updated quarterly. Available at www.dfg.ca.gov.


Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Database and based on either number of known occurrences (locations) and/or amount of habitat remaining (acres). The three rankings used for these top priority rare natural communities are as follows:

S1.1 Fewer than 6 known locations and/or fewer than 2,000 acres of habitat remaining.
S2.1 Occurs in 6-10 known locations and/or 2,000-10,000 acres of habitat remaining.
S3.1 Occurs in 11-100 known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.1 = threatened
S3.1 = no current threats known

Sensitivity Rankings (February 1992)

<table>
<thead>
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<th>Rank</th>
<th>Community Name</th>
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<tr>
<td>S1.1</td>
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<td></td>
<td>Sonoran Cottonwood Willow Riparian</td>
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<td>Mesquite Bosque</td>
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<td>Elephant Tree Woodland</td>
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S1.2
Southern Foredunes
Mono Pumice Flat
Southern Interior Basalt Flow Vernal Pool

S2.1
Venturan Coastal Sage Scrub
Diegan Coastal Sage Scrub
Riversidean Upland Coastal Sage Scrub
Riversidean Desert Sage Scrub
Sagebrush Steppe
Desert Sink Scrub
More Southern Mixed Chaparral
San Diego Mesa Harbison Vernal Pool
San Diego Mesa Chaypan Vernal Pool
Alkali Meadow
Southern Coastal Salt Marsh
Coastal Brackish Marsh
Transmontane Alkali Marsh
Coastal and Valley Freshwater Marsh
Southern Arroyo Willow Riparian Forest
Southern Willow Scrub
Modoc-Great Basin Cottonwood Willow Riparian
Modoc-Great Basin Riparian Scrub
Mojave Desert Wash Scrub
Engelmann Oak Woodland
Open Engelmann Oak Woodland
Closed Engelmann Oak Woodland
Island Oak Woodland
California Walnut Woodland
Island Ironwood Forest
Island Cherry Forest
Southern Interior Cypress Forest
Bigcone Spruce-Canyon Oak Forest

S2.2
Active Coastal Dunes
Active Desert Dunes
Stabilized and Partially Stabilized Desert Dunes
Stabilized and Partially Stabilized Desert Sandfield
Mojave Mixed Steppe
Transmontane Freshwater Marsh
Coulter Pine Forest
Southern California Fellfield
White Mountains Fellfield

S2.3
Bristlecone Pine Forest
Limber Pine Forest
October 27, 2010

IGR/CEQA No. 100965AL-NOP
Expansion Area Amendment to the Redevelopment
Plan for the Merged Project Area
Vic. LA-14 & LA-138 Various Locations
SCH # 2010091073

Mr. Richard Kite
City of Palmdale
38250 N. Sierra Highway
Palmdale, CA 93550

Dear Mr. Kite:

Thank you for including the California Department of Transportation (Department) in the environmental review process for the above referenced project. The proposed project is an amendment to the Redevelopment Plans for the Merged Project Area to add 7,787 acres to the Merged Project Area. No specific development is proposed at this time.

As per your telephone conversation with Alan Lin, Project Coordinator, on October 26, 2010, the City will request that the future applicants go through a separate environmental process when a new development is proposed. At that time, the Department will have an opportunity to review and comment on the specific project. Please include the Department in the environmental review process when a major specific project is proposed or when a significant land use is changed.

If you have any questions, please feel free to contact me at (213) 897-9140 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 100965AL.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse
October 27, 2010

Richard Kite, Assistant Director
City of Palmdale
Planning Department
38250 N. Sierra Highway
Palmdale, CA 93550

Dear Mr. Kite:

NOTICE OF PREPARATION/DRAFT ENVIRONMENTAL IMPACT AMENDMENT,
REDEVELOPMENT FOR MERGED PROJECT AREA PROGRAM EIR, PALMDALE (FER
#201000191)

The Notice of Preparation/Draft Environmental Impact Amendment has been reviewed by the
Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials
Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. We have no comments at this time.

LAND DEVELOPMENT UNIT:

1. The Land Development Unit does not have any conditions for access and water system
requirements at this time. However, if there are changes to Fire Department access, which
includes center medians and other traffic calming measures, or the water system, plans are
required to be submitted to the Land Development Unit for review.

2. Plans for new subdivisions, changes to existing subdivisions, conditional use permits and site
plans reviews shall also be submitted to the Land Development Unit for review. Please
contact the County of Los Angeles Fire Department, Land Development Unit Inspector Wally
Collins, at (323) 890-4243 or (661) 949-6319, for additional questions.

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:
FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for very high Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed in the Final Environmental Document.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. The Health Hazardous Materials Division has no objection to the proposed project. However, it should be noted that any site with historical use/storage of hazardous materials proposed for redevelopment, needs to be assessed/mitigated under oversight of the State or local jurisdictional agency.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

[Signature]

John R. Todd, Chief, Forestry Division
Prevention Services Bureau

JRT:i
October 28, 2010

Mr. Richard Kite
Assistant Director of Planning
City of Palmdale
38250 N. Sierra Highway
Palmdale, California 93550

RE: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the City of Palmdale Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area

Dear Mr. Kite:

Southern California Edison (SCE) appreciates the opportunity to provide comment on the NOP for the City of Palmdale Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area. The project is described as a proposal to add 7,787 acres to the Merged Project Area, increasing the total acreage to 15,255 acres for the Merged Project Area. Currently, each of the Project Areas in the Merged Project Area have separate Redevelopment Plans. The Expansion Area Amendment proposes to consolidate these into a single, Merged, Amended, and Restated Redevelopment Plan ("Merged Plan"). If adopted, the Merged Plan would allow the Community Redevelopment Agency (CRA) of the City of Palmdale to acquire non-residential properties using eminent domain, as a last resort, in the Expansion Area. The project area is stated to be generally bounded by Sierra Highway to the west, 45th Street East to the east, Avenue M to the north, and residential neighborhoods as far south as Avenue R-6 within the City of Palmdale.

SCE Co. right-of-ways and fee-owned properties are purchased for the exclusive use of SCE to operate and maintain its present and future facilities. Any proposed use will be reviewed on a case-by-case basis by SCE's Operating Department. Approvals or denials will be in writing based upon review of the maps provided by the developer and compatibility with SCE right-of-way constraints and rights. In the event the project proposes to impact SCE facilities or its land related rights, please forward five (5) sets of project plans depicting SCE's facilities and its associated land rights to the following location for review as noted above:

Real Properties Department
Southern California Edison Company
2131 Walnut Grove Avenue, G.O.3 — Second Floor
Rosemead, CA 91770
If it is determined the project impacts SCE's facilities and other SCE resources, these impacts would need to be addressed and agreed to in writing by SCE prior to finalizing the development plan.

Please be advised when development plans result in the need to construct or relocate SCE electrical facilities operating at or above 50 kV, the SCE construction may have environmental consequences subject to CEQA provisions, as implemented by the California Public Utilities Commission (CPUC). If those environmental consequences are identified and addressed in the CEQA process for the larger project by the local agency, SCE may not be required to pursue a mandatory CEQA review through the CPUC's General Order 131-D (GO 131-D) process. If the SCE facilities are not adequately addressed in the Draft EIR and the proposed construction or relocation of facilities could result in significant environmental impacts, the additional CEQA review for the power line portion of the project could delay the project for two years or longer.

Once again, we appreciate the opportunity to comment on the NOP for this project and look forward to reviewing the DEIR when is completed. If you have any questions regarding this letter, do not hesitate to contact me at (661) 726-5608.

Sincerely,

Deborah Hess
Local Public Affairs Region Manager
Southern California Edison Company
Re: NOP of DEIR for Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area Program EIR

Dear Mr. Kite:

Thank you for giving us the opportunity to review the Notice of Preparation for the Redevelopment Plans for the City of Palmdale. The Antelope Valley Mosquito & Vector Control District is a special district charged with protecting public health within most of the City limits of Palmdale and Lancaster. Our main objective is to keep mosquito populations at a minimum. We take this responsibility very seriously. As such, we have reviewed the above named project and ask consideration of the following points:

The document states that all development projects would have to comply with the City’s Master Plan of Drainage Update, and require detention basins, regional drain channels, and master plan facilities. These storm drain facilities generate different challenges when it comes to mosquito reproduction.

Underground storm drain facilities such as the twin pipes often have debris and sediment deposits along the way. That will create small isolated puddles of water within the pipe that can serve as mosquito habitat. Furthermore, underground drains and vault spaces provide safe harborage for adult resting and over-wintering mosquitoes. Numerous studies conducted by the California Department of Public Health, California Department of Transportation (Caltrans) and several Vector Control Districts showed that adult female mosquitoes will fly through openings as small as 1/16\textsuperscript{th} of an inch and over a distance of more than 100 ft to access water to lay eggs.

I would like to stress again that the BMPs are notorious for breeding tremendous numbers of mosquitoes (see references below). All BMP structures should be easily and safely accessible to allow AVMVCD technicians to effectively monitor and if necessary, abate mosquitoes.
I would also like to emphasize that creating mosquito breeding sites constitutes a public health nuisance under the California Health and Safety Code §2060 and may result in potential fines of up to $1000 per day plus the cost of abatement until corrected.

It is therefore crucial that the City of Palmdale include a long-term plan in the updated Master Plan of Drainage for these drainage systems to be properly maintained. Customary annual or even bi-annual pumping of vault-type units is wholly inadequate to prevent mosquito reproduction. Ongoing research is looking into the possibility of mosquito exclusion in underground BMPs with manhole cover inserts.

We ask that you keep mosquito production and public health in mind when constructing flood control facilities that will be able to hold water for any amount of time. In the summer months mosquito reproduction is very rapid, and as we have seen here last year, can have fatal consequences for local residents.

Please feel free to contact me at 661-942-2917 ext. 206 or by email (Karen@avmosquito.org) for any further information.

Sincerely,

Karen S. Mellor
Entomologist / Operations Supervisor
Antelope Valley Mosquito & Vector Control District

References:  Managing Mosquitoes in Stormwater Treatment Devices
The Impact of New BMP Construction on Local Public Health Agencies
http://www.forester.net/sw_0203_stormwater.html
The Dark Side of Stormwater Runoff Management: Disease Vectors Associated with Structural BMPs
http://www.forester.net/sw_0203_dark.html
We Want You to Fight Stormwater Mosquitoes: A Call for Interagency and Interdisciplinary Collaboration – Stormwater Magazine
Checklist for Minimizing Vector Production Stormwater Management Structures (Hardcopy attached)
Checklist for Minimizing Vector Production in Stormwater Management Structures

Management of mosquitoes and other vectors in stormwater management structures, such as flood control basins and Best Management Practices, is critical for protecting public health. With careful planning, such structures can be designed, built, operated, and maintained in a manner that minimizes opportunities for the proliferation of vectors. This publication provides checklists of action items intended to lessen the short and long-term potential for vector production in stormwater management structures while reducing dependence on pesticides to the maximum extent possible. With the wide variety of structures and build locations, it is anticipated that not all action items will apply to every project. Answers to frequently asked questions follow the checklist.

For simplicity, stormwater management structures have been divided into three categories, each with specific considerations. Certain structures may require reference to more than one checklist.

**Dry Systems.** Any structure designed to drain completely following capture and/or treatment of runoff. Examples include flood control basins, extended detention basins, infiltration basins and trenches, Austin sand filters, swales and strips, drain inlet inserts, linear-radial gross solids removal devices. Permanent-water features sometimes included as part of dry system design, such as micropools, should be considered separately using the checklist for “wetlands”.

**Wet Systems.** Any structure designed with features such as sumps, vaults, and/or basins that hold water permanently, or longer than 4 days. Examples include open catch basins, concrete retention basins, Delaware sand filters, and a variety of belowground proprietary devices.

**Wetlands.** Any structure constructed as a naturalistic system with permanent surface waters, regardless of the formal given name (e.g., stormwater pond, retention basin, wet basin, constructed wetlands, treatment wetlands, etc.). This section also applies to permanent-water features sometimes included as part of dry system design such as micropools.

Additional information is available from the California Department of Public Health
http://www.cdph.ca.gov/HealthInfo/diseases/Pages/MosquitoBorneDiseases.aspx
and from the University of California, Division of Agriculture and Natural Resources (UCANR)

To facilitate public health mosquito control, it is strongly recommended that project locations be provided to the local vector control agency. To locate your local mosquito and vector control agency, go to http://westnic.ca.gov and search by zip code.
DRY SYSTEMS

Recommended strategy: Complete discharge of all captured water in 4 days or less.

☐ Is the structure designed to discharge all captured water in 4 days or less?

☐ Has every effort been made to trace and eliminate persistent non-stormwater flows (e.g., irrigation runoff) that may enter the system and jeopardize non-chemical vector control efforts?

☐ Has groundwater depth been carefully evaluated to ensure that the structure will not be permanently or seasonally flooded (i.e. is the base of the basin higher than the local groundwater table)?

☐ Does the design provide an adequate slope between the inlets and outlets, with special attention given to ensure corners are above grade?

☐ Has soil been compacted adequately during grading to minimize subsidence, which can result in pools of standing water?

☐ Does the design slope take into consideration the inevitable accumulation of sediment and debris between maintenance periods that can result in standing water, especially in and around the inlet?

☐ Does the design minimize the use of features that increase the potential for standing water, such as loose riprap and concrete curbs?

☐ Does the structure include a concrete or earthen low-flow channel to concentrate (i.e. minimize available surface area) and direct non-stormwater flows to the outlet?

☐ Is the distribution piping sloped adequately and smooth (not corrugated) on the inside to prevent standing water?

☐ Are the inlet structures and energy dissipators designed and sloped sufficiently to prevent scour depressions?

☐ Are the outlets designed with debris screens or other features that reduce the potential for clogging?

☐ Is the structure designed with safe and sufficient access for inspection, maintenance, and/or vector control activities when needed?

☐ Does the operation and maintenance plan include a minimum of quarterly inspections to ensure that vegetation overgrowth, sediment accumulation, or other factors have not created areas of standing water?

☐ Does the operation and maintenance plan include a minimum annual maintenance to remove vegetation overgrowth, remove sediment and debris accumulation, and otherwise return the structure to “as-designed” conditions?

☐ Is signage provided and clearly visible with minimum information indicating the type of structure (e.g. extended detention basin), ownership, and contact information?
WET SYSTEMS

Recommended strategy: Deny mosquito access to standing water by using covers, screens, and/or other barriers.

☐ Have sumps, vaults, or basins that hold water permanently, or longer than 4 days, been completely or partially sealed against adult mosquito entry?

☐ If used, are covers tight fitting, with gaps or holes of no greater than 1/16” (2 mm)?

☐ If used, are aluminum or nylon screens for sealing small openings secured with gaps or holes of no greater than 1/16” (2 mm)?

☐ If cast iron manhole covers are used, are pick holes sealed or is a mosquito-proof insert provided below?

☐ Where feasible, are the inlet and/or outlet conveyance pipes submerged to prevent adult mosquito entry into the main water storage area?

☐ Where feasible, are conveyance pipes fitted with flapper valves, collapsible fabric tubes, or other barriers to prevent adult mosquito entry into the main water storage area?

☐ Is the structure designed with safe and sufficient access to permanent water areas for inspection, maintenance, and/or vector control activities when needed?

☐ Does the operation and maintenance plan include a minimum of quarterly inspections to ensure that barriers to mosquito entry are intact and in place as designed?

☐ Where possible, is signage provided with minimum information indicating type of structure (e.g. CDS™), ownership, and contact information?
WETLANDS

Recommended strategy: Create and maintain habitat least-suitable for mosquito breeding.

☐ Is the system designed with features that minimize the areas suitable for mosquito production?

☐ Does the design discourage emergent vegetation in shallow water zones where vegetation is not needed or desired, for example by using concrete liners in sediment forebays?

☐ Are slopes designed as steep and uniform as possible to discourage invasive, emergent vegetation?

☐ Does the system include deep water zones, in excess of 4 ft, to reduce available area for emergent vegetation and provide refuge for natural mosquito predators such as mosquitofish and certain invertebrates?

☐ Where permitted, have mosquitofish been introduced to help control mosquitoes?

☐ Does the system include provisions for rapid dewatering if needed for emergency control of mosquitoes?

☐ Is the structure designed with safe and sufficient access for inspection, maintenance, and/or vector control activities when needed?

☐ Are access roads built close to the shoreline and around the perimeter of the wetland to the extent feasible?

☐ Are access points incorporated at regular intervals along the perimeter to allow for vector monitoring and control when necessary.

☐ Does the operation and maintenance plan include a minimum of quarterly inspections to ensure that vegetation overgrowth, sediment accumulation, or other factors have not created areas suitable for mosquito production?

☐ Does the operation and maintenance plan include a minimum annual maintenance to remove vegetation overgrowth, remove sediment and debris accumulation, and otherwise return the structure to “as-designed” conditions?

☐ Is signage provided and clearly visible with minimum information indicating type of structure (e.g. stormwater treatment pond), ownership, and contact information?
Frequently Asked Questions

DRY SYSTEMS

1. Why is it important to drain all captured water in 4 days or less?
Most mosquito species important to public health require at least 6 days to develop from egg to adult. Designing dry systems to drain completely in 4 days ensures that no mosquitoes will be produced with a built-in margin of safety of several days.

2. Our stormwater treatment BMPs were designed to dewater in 4 days, but persistent non-stormwater flows result in areas of standing water that routinely produce mosquitoes. How do we address this problem?
Dry-weather urban runoff is a major contributor to mosquito production in urban areas everywhere. If the source(s) cannot be traced and eliminated, the best alternate solution is to minimize the surface area available to mosquitoes by cutting a low-flow channel through the BMP to direct the water to the outlet as efficiently as possible.

3. Will very shallow areas of standing water that remain in our detention basins after a storm event provide a potential source of mosquito production?
Certain species of mosquitoes important to public health are very adaptable. Water as shallow as 1/16", and sometimes less, can be sufficient to allow mosquito larvae to develop.

WET SYSTEMS

1. Our stormwater treatment BMPs are installed belowground and covered. Why should we be concerned about mosquitoes?
Unfortunately, certain species of mosquitoes capable of transmitting disease are well-adapted for finding and breeding in belowground habitats. These mosquitoes can access belowground sources through openings as small as 1/16" (2mm) and they can fly great distances through pipes.

2. We wish to install a belowground proprietary BMP in a new housing development. If we seal the access covers against mosquitoes, how far away should we design the inlet grates to keep mosquitoes from accessing the permanent-water sump?
The absolute flight limits of mosquitoes that can breed belowground are unknown; however, recent studies found that females could fly at least 80 feet through 4" diameter pipe to reach a source of standing water and were unaffected by changes in pipe course. It is unlikely that mosquitoes can be excluded from underground sources using conveyance pipe length alone.

3. We are considering the addition of weep holes to our belowground sumps to allow them to dewater between storms so they do not produce mosquitoes. Will this work?
Weep holes are typically not a reliable choice for preventing mosquito production due to their high probability of failure due to clogging.
4. I was told that mosquitoes cannot breed in water with a visible oil sheen on the water surface. Is this true or false?
With some exceptions, this is false. In most cases, the oil sheen visible on the water surface is not uniform, but is broken. Certain species of mosquitoes capable of transmitting disease can exploit these habitats by using the oil-free areas for egg laying and larval development. In addition, surface oils are broken down over time, disappearing altogether if not regularly replenished by oily runoff.

5. We are considering a provision to dewater our belowground sumps after every storm event to prevent mosquito production. Will this be effective?
It has the potential to be effective, but there are several complicating factors to consider: 1) dry-weather urban runoff frequently replenishes belowground sumps making pumping efforts futile, and 2) pumps often leave a small amount of residual water in the bottom of the sumps, and water as shallow as 1/16” or less can be sufficient to allow mosquito larvae to develop.

6. Our stormwater sumps contain very deep water. Will this prevent mosquito production?
Unlike deep water zones in ponds and wetlands where mosquitoes generally do not develop due to predators, wind, and wave action, mosquitoes are unaffected by water depth and/or surface area in belowground systems.

7. Will flowing water prevent mosquito production?
Flowing water will discourage females from laying eggs and can kill larvae. For example, a vortex separator receiving year-round flow from an urban stream should not produce mosquitoes due to constant movement of the entire water surface area. However, water flow through systems with square sumps (or sumps of other geometrical shapes) may not completely eliminate mosquito production due to the stagnant zones created in the corners where water movement is minimal.

8. Will surface agitators prevent mosquito production?
Agitators, sprinklers, or other means of disturbing the water surface will discourage females from laying eggs and can kill larvae, however, in order to be effective the entire surface must be disturbed.

9. It seems that controlling mosquitoes in belowground stormwater systems without resorting to chemical treatment is rarely successful. How do we deal with this problem? Field research has documented the difficulty in controlling mosquitoes in belowground stormwater systems without chemicals (i.e., exclusion of mosquitoes was successful in a few systems studied, but the vast majority of attempts resulted in only marginal reductions). However, for reasons that are not entirely understood, not all belowground systems produce mosquitoes equally; some are sporadic and some are year-round producers. It is strongly recommended that the local vector control agency be consulted to determine site-specific monitoring and control needs.
WETLANDS

1. **Why are mosquitoes still being detected in well designed and maintained wetlands?**
   Mosquitoes are difficult to eliminate completely from wetlands due to the complexity of the created environment. The goal should be to minimize mosquito production by making the habitat less desirable for them.

2. **Will the deep areas of stormwater ponds where no emergent vegetation can grow produce mosquitoes?**
   Deep, open areas of water are typically unsuitable for mosquito production due to surface disturbance caused by wind and exposure to predators. However, if the deep zones become colonized by floating vegetation such as water hyacinth or by clumps of floating filamentous algae, mosquitoes may breed in the shelters created among these plants.

3. **Why is it important to keep emergent vegetation such as cattails and bulrush from getting overly dense?**
   Dense emergent vegetation, especially along perimeter margins, will prevent predators such as mosquito fish from accessing these areas, creating ideal habitats for mosquitoes.

4. **Why is it important to eliminate floating vegetation such as water hyacinth and maintain water quality to discourage clumps of floating filamentous algae?**
   Not only are certain floating plants such as water hyacinth considered exotic invasive species harmful to North American ecosystems, but these plants provide excellent habitats for mosquitoes sheltered from predators.

5. **How do I determine if mosquito fish are permissible for use in my area?**
   As a general rule, if the stormwater wetland is self-contained, and does not empty into a natural waterway, mosquito fish can be used to control mosquitoes. If in doubt, it is best to consult with the local office of the Department of Fish and Game before stocking fish.

6. **How often should mosquito fish be restocked to reduce mosquito numbers?**
   In general, mosquito fish are very hardy and will rapidly increase in numbers to form a stable population. Large game fish such as bluegill and bass may negatively impact or eradicate mosquito fish populations, as can large numbers of fishing birds; however, low temperatures are the leading cause of population failures. In cold climates, mosquito fish may need to be restocked each spring following the last frost.

7. **Do we need to be concerned with mosquito production during “cold snaps” or winter periods?**
   Most mosquitoes important to public health can develop successfully in water ranging from approximately 45 to 100 °F, with the ability to survive short periods outside this spectrum. Short cold snaps may not be lethal to larvae if the habitat provides a buffer area, however, extended periods of cold below 45 °F will halt mosquito production.
8. Will encouraging nesting and roosting habitat for certain birds and bats around our stormwater wetland reduce the population of adult mosquitoes appreciatively? Although certain birds (e.g. swallows, martins) and bats have been reported to consume large numbers of adult mosquitoes, these animals do not preferentially feed on mosquitoes and there is no evidence to show that they substantially reduce mosquito populations.
Appendix C:
Public Service and Utility Correspondence
October 19, 2010

Starla Barker, AICP
Project Manager
RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

Dear Ms. Barker:

Per your letter dated October 11, 2010 I am providing the information you requested on the City of Palmdale’s recreation facilities that serve the project areas listed in the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area Program.

The following are the answers to the questions you had in the Park and Recreational Facilities Questionnaire:

1. Please indicate the location of the facilities which service the Project Area (include distance from the Project Area and size of the facility).

Facilities within the Proposed Expansion Area or near enough to serve residents and/or businesses within the Expansion Area are as follows:

a. American Indian Little League, located on the southeast corner of Division St. and East Avenue P-8, is within the expansion area. The park size is 5 acres.

b. Desert Sands Park, located at 39117 3rd Street East (southwest corner of P-8 and 3rd Street East), is within the expansion area. The park size is 20 acres.

c. Dr. Robert St. Claire Parkway, located on Sierra Highway between Avenue Q and Avenue R, is within a quarter of a mile of the expansion area. The parkway is approximately 8 acres.

d. Joe Davies Heritage Airpark at Palmdale Plant 42, located at 2001 East Avenue P, is within the project area. The park size is 24.6 acres.

www.cityofpalmdale.org
e. Larry Chimbole Cultural Center, located at 38350 Sierra Highway (corner of Sierra Highway and Palmdale Boulevard), is within a quarter of a mile from the expansion area. The facility’s size is 21,358 square feet.

f. Legacy Commons Center for Active Seniors, located at 930 East Avenue Q-9 (corner of East Avenue Q-9 and 10th Street East), borders the expansion area. The facility’s size is 8,500 square feet.

g. Melville J. Courson Park and Pool are located at 38226 10th Street East (northeast corner of 10th Street East and Avenue Q-12), is within the expansion area. The park size is 7.5 acres and the pool facility is 6,000 square feet.

h. Palmdale Parks and Recreation Office, located at 38260 10th Street East, is within the expansion area. The facility’s size is 7,700 square feet.

i. Palmdale City Library, located at 700 East Palmdale Boulevard is within a quarter of a mile of the expansion area. The facility’s size is 12,790 square feet.

j. Palmdale Playhouse, located at 38334 10th Street East, is within the expansion area. The facility’s size is 12,700 square feet.

k. Palmdale Pony League Baseball Site, located at 20th Street East between Palmdale Blvd., and East Avenue R and adjacent to Palmdale High School, is within the expansion area.

l. Poncitlan Square, located at 38315 9th Street East, is within a quarter of a mile of the expansion area. The park size is 2 acres.

m. Richard B. Hammack Community Activity Center and Roller Hockey Rinks, located at 815 East Avenue Q-6 (corner of Avenue Q-6 and 9th Street East), is within a quarter of a mile from the expansion area. The facility’s size is 30,000 square feet and the two roller hockey rinks total 52,000 square feet with each rink 100’ x 200’. The Hammack Activity Center is currently occupied by the Palmdale Boys and Girls Club.

n. William J. McAdam Park and Pool, located at 38115 30th Street East (Westside of 30th Street East between Palmdale Boulevard and Avenue R), is within a mile of the expansion area. The park size is 20 acres and the pool facility is 4,160 square feet.

A map of the parks and recreation facilities is enclosed for visual clarification on locations.

2. Do you anticipate impacts to the park and recreation facilities?

We do not anticipate any impacts to the park and recreation facilities by the expansion area amendment.
3. Please indicate if there will be any required fees to help mitigate potential impacts to park and recreation facilities.

Fees will not be required to help mitigate potential impacts to City parks and facilities.

4. Do you have any required or recommended mitigation measures for significant impacts?

We do not have any required or recommended mitigation measures.

5. Is there any other relevant information regarding potential impacts of the proposed Project?

We do not have any additional information regarding potential impacts of the proposed Project.

6. Do you anticipate that project implementation would result in the need for physical additions to your agency (i.e. construction of new park and recreation facilities)?

No, potential new housing in the project area is minimal, existing facilities will support the project area.

Please feel free to contact my secretary, Tonya Madison, at 681/267-5681 with any further questions or clarifications.

Sincerely,

Ked Brady
Assistant Director
Parks and Recreation

KB:tm

Enclosure
October 20, 2010

Starla Barker, Project Manager
RBF Consulting
14725 Alton Parkway
Irvine, California 92618-2027

EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS FOR THE MERGED PROJECT AREA PROGRAM ENVIRONMENTAL IMPACT REPORT

Dear Ms. Barker:

This letter is written in response to your request regarding law enforcement services provided to the Project Area. The project area currently falls within the City of Palmdale’s contracted law enforcement service area, and law enforcement services are provided by the Los Angeles County Sheriff’s Department. Department personnel provide service from the Palmdale Sheriff’s Station located at 750 East Avenue Q, Palmdale, California 93550.

Palmdale Station is a full service station. The station houses the city’s jail facility, detective bureau, traffic services, and patrol services. The station opened in July 2006. The facility size and resources are more than adequate for the city’s needs. Staffing levels are currently contracted at adequate levels to police the expansion areas. There are no established target staffing levels.

Palmdale Sheriff’s Station has established target response times, and they are as follows: Five minutes for emergency calls, twenty minutes for priority calls, and sixty minutes for routine calls.

The Sheriff’s Department does not assess fees for new developments within the city.

After review of the expansion area project, the Sheriff’s Department does not anticipate any significant impacts on service calls, additions to personnel, or patrol cars. The project will not require any expansion of our facilities or additional stations within the city.
Should your office require further information, please feel free to contact me or Deputy George Oriel of my staff at 661-272-2400.

Sincerely,

LEROY D. BACA, SHERIFF

Don P. Ford, A/Captain
Palmdale Station
October 20, 2010

RBF Consulting
Attn: Starla Barker
14725 Alton Parkway
Irvine, CA... 92619-2027

Re: Expansion Area Amendment to the Redevelopment Plans for the Merged Project
Area Program Environmental Impact Report....U.S.A.F. Plant 42...Palmdale

Dear Ms. Barker:

This is in response to your Inquiry Letter dated October 11, 2010, regarding the above referenced project.

A review of your preliminary plans by AT&T Network Services (long distance) reveals there may be a CONFLICT with the above-mentioned project and the AT&T Transcontinental Fiber Optic Cable at this location. AT&T must review your current and/or proposed engineering drawings to insure the safety and maintenance of AT&T facilities. AT&T is willing to provide you with its as built drawings and any details AT&T has available to help avoid any conflicts with its facilities.

Locating of AT&T’s facilities must be arranged by contacting your local One-Call Utility Notification Center (Dig Alert) at 1-800-227-2600 or AT&T’s Cable Hazards Center at 1-800-252-1133 no less than 2 working days in advance of any activity within the defined easement area or 10’ of cable. AT&T Plant Protection Services must be contacted, and be on site prior to any proposed activities on the AT&T easement or within 10’ of cable. The AT&T Plant Protection Supervisor in charge of the cable locators for the AT&T cable facilities in the area of your proposed project above is Mr. Curtis Shapazian, AT&T Network Manager OPS at GNO west. (559) 442-2252.

All inquiries requesting AT&T Proprietary Information in Southern California, Southern Nevada and Arizona (i.e. engineering as-builds) must be forwarded with detailed engineering drawings associated with your project to:

AT&T INQUIRIES
22311 Brookhurst Street, Suite #203
Huntington Beach, CA 92646

Enclosed is a copy of AT&T’s Mojave-Los Angeles FTA cable drawings WT 959DN185-191 that depict the approximate location of the AT&T cable in the general vicinity of your preliminary drawing. These as-built drawings are for informational use only in determining the approximate location of the AT&T facility. These drawings are “Proprietary Information” and should be utilized in strict confidence. PLEASE PLOT THE LOCATION OF THE AT&T CONDUIT SYSTEM ON YOUR PLAN VIEW AND PROFILE DRAWINGS AND RETURN FOR FURTHER CONFLICT REVIEW.

Should you have any questions related to engineering as built, information, questions or concerns regarding your proposed project, please contact Mr. Walter Werstiiuk at (714) 963-7964 or me at your earliest convenience.

Sincerely,

Stephen Sherman for
Rosemary Hamill
AT&T Cable Maintenance Engineer
(925) 977-2413
Ms. Starla Baker, AICP  
Project Manager  
RBF Consulting  
14725 Alton Parkway  
Irvine, CA 92618-2027

Dear Ms. Baker:

Expansion Area Amendment to the  
Redevelopment Plans for the Merged Project Area

This is in response to your request for information for the subject project, which was received by the County Sanitation Districts of Los Angeles County (Districts) on October 12, 2010. We offer the following comments regarding sewerage service:

- Previous comments submitted by the Districts in correspondence dated October 21, 2010 (copy enclosed), to Mr. Richard Kite of the City of Palmdale, still apply to the subject project with the following information:

- Based on the information provided by you on Table 1, Proposed Expansion Area – Growth Over Existing Conditions (copy enclosed), the expected average wastewater flow, including existing development, from the project area is 4,726,850 gallons per day.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Adriana Raza  
Customer Service Specialist  
Facilities Planning Department

AR:ar

Enclosures
Mr. Richard Kite, Assistant Director of Planning  
Planning Department  
City of Palmdale  
38250 Sierra Highway  
Palmdale, CA 93550

Dear Mr. Kite:

Expansion Area Amendment to the  
Redevelopment Plans for the Merged Project Area Program

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on September 27, 2010. We offer the following comments regarding sewerage service:

1. Portions of the project area are outside the jurisdictional boundaries of the Districts and will require annexation into District No. 14 or District No. 20 before sewerage service can be provided to the proposed development area. For a copy of the Districts’ Annexation Information and Processing Fees sheets, go to www.lacsd.org. Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the annexation procedure and fees, please contact Ms. Donna Kitt at extension 2708.

2. The Districts own, operate, and maintain only the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City of Palmdale except to state that presently no deficiencies exist in Districts' facilities that serve the City. For information on deficiencies in the City sewerage system you should contact the City Department of Public Works and/or the Los Angeles County Department of Public Works. However, availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as individual projects advances within the project area. Please submit a copy of the project’s build-out schedule to the undersigned to ensure the project is considered in planning future sewerage system relief and replacement projects.

3. The wastewater generated by the proposed project will be treated at the Palmdale Water Reclamation Plant (WRP), which has a design capacity of 15 mgd and currently processes an average flow of 9.3 mgd or the Lancaster WRP, which has a design capacity of 16 mgd and currently processes an average flow of 14.0 mgd.
From: Vickie Tulk <VTulk@avhsd.org>
To: "sbarker@rbf.com" <sbarker@rbf.com>
Date: 11/9/2010 10:16 AM
Subject: Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area
Program Environmental Impact Report
Attachments: RBF CONSULTING.pdf

On behalf of Jeff Foster, Deputy Superintendent:

My apologies for the late response, however the information you have requested is attached and I hope will be useful to you.
SCHOOL FACILITIES QUESTIONNAIRE

EXPANSION AREA AMENDMENT TO THE REDEVELOPMENT PLANS
FOR THE MERGED PROJECT AREA ENVIRONMENTAL IMPACT REPORT

Please respond to the following questions on agency letterhead and provide a map if necessary. In your response, provide as much information as possible (necessary to evaluate potential impacts).

1. Please identify the school facilities that serve the residents of the Project Area.
   
   **Primary - Palmdale High School.**
   A few students between Avenues P & Q west of Tenth Street East would go to Highland High School.
   A few students east of 40th St. East would go to Knight High School.

2. Please provide the current enrollment and school capacity of each school that serves the Project Area.
   - Palmdale High School  Enrollment: 3,040/Capacity: Approx. 3,400
   - Highland High School  Enrollment: 3,111/Capacity: Approx. 3,800
   - Knight High School  Enrollment: 3,418/At capacity

3. Are there any plans for facility expansion or new facilities, please provide as much detail as possible. Where does your school district acquire funding for new facilities?
   - There are no current plans to expand the serving school sites. We participate in the State School Facilities funding program and raise funds for our local match through G.O. bonds. Last one was 2002.

4. Are fees assessed against new developments for school–related services? If so, what is the amount of developer fees assessed?
   - We are currently assessing Level II, III Developer Fees at $1.60 per square foot for residential development. Our fee study is updated annually.

5. What is the generation rate used by the district to predict future population growth?
   - .246 single family detached
   - .120 single family attached
   - .102 multi-family

6. Does your school district anticipate being able to accommodate for the population that may be generated by the proposed Project?
   - Yes.

7. Please provide any additional comments that would pertain to impacts associated with the Expansion Area Amendment to the Redevelopment Plans for the Merged Project Area.
Quartz Hill Library

Victoria Vallejos
Community Library Manager
42018 N. 50th St. W
Quartz Hill, CA 93536-3509
Phone: (661) 943-2434

Hours:
Monday 10 - 5
Tuesday 10 - 8
Wednesday 10 - 8
Thursday 10 - 5
Friday 10 - 5
Saturday 11 - 5
Sunday CLOSED

View a map of other libraries in the Antelope Valley area.

For residents of the unincorporated areas, please contact your Supervisor for matters of local government.

History
The Quartz Hill Library was founded July 24, 1959. This small library was one of three adjoining, family run stores and ultimately expanded to encompass each of the three units. Quartz Hill is part of the unincorporated County of Los Angeles and is located in the southwest part of the Antelope Valley, adjacent cities of Palmdale and Lancaster. Although many new, large and imposing have been built in the area, Quartz Hill seems to retain the rural quality of a town. One may still see the occasional horse and rider meandering down the sidewalk past the front windows of the library. The annual Street Faire is held front of the library and the annual Almond Blossom parade has marched by the library for many years. Both events are well attended and each year newcomers discover the library while attending the parade and faire.

Collection
The collection consists of 68,479 books, including large-print material, 5,220 recordings including compact discs and books-on-tape; telephone directories; video recordings; auto manuals; pamphlets; 53 newspapers and 24 magazines for adults and children; and English language learning materials.

Services
The Quartz Hill Library offers the use of one public access Internet workstational online library catalogs that provide access to the entire County Library collection and to online reference databases; reference service; preschool story times; a Homework Center, children's reading incentive programs; and other special programs for children such as stories, crafts, projects, special performers, school tours, library introduction programs. The library serves seven public schools, three private schools, and two high schools as well as several private schools and a two-year college. A coin-operated photocopier is available for the public.
Facilities
Quartz Hill Library is a 3,500 square feet "store-front" building offering a home atmosphere with a separate room for children's programs.

Political Representatives
- U.S. Congressional District: 25th
  Howard "Buck" McKeon
  URL: http://www.house.gov/mckeon/
- State Senate District: 17th
  George Runner
  URL: http://republican.sen.ca.gov/web/17/
- State Assembly District: 36th
  Steve Knight
  URL: http://republican.assembly.ca.gov/members/a36/index.aspx
- Supervisorial District: 5th
  Michael D. Antonovich
  URL: http://www.antonovich.com/

Local Links
- Quartz Hill Chamber of Commerce
  URL: http://www.quartzhillchamber.org/

  Information on local businesses, organizations, and events in Quartz Hill.

Revised 06/10
Lancaster Regional Library

Judy Hist
Community Library Manager
601 W. Lancaster Blvd.
Lancaster, CA 93534-3398
Phone: (661) 948-5029

Hours:
Monday CLOSED
Tuesday 10 - 8
Wednesday 10 - 8
Thursday 10 - 8
Friday 8 - 6
Saturday 8 - 6
Sunday CLOSED

View a map of other libraries in the Antelope Valley area.

History
The original Lancaster Library was established by the Los Angeles County Free Public Library in October 1912 in the Antelope Valley Union High School which was located on the southwest corner of Tenth Street (now Lancaster Boulevard) and Cedar Avenue. Subsequently, the Lancaster Library occupied space in a local drugstore, the Chamber of Commerce, and the County Justice Court. In 1950, the library moved to Fig Avenue and provided library services from this site for fourteen years. The expanded Lancaster Library opened on West Avenue in 1964. Due to rapid population growth throughout the Antelope Valley, a new library was built in 1995-1996 on Lancaster Boulevard in the Lancaster Old Town Site.

provide library services to the residents of Lancaster and the surrounding area.
communities.

Collection
The current collection totals 365,989 items with 325,537 books; 15,154 audio recordings; 16,773 video recordings; federal and state publications; 280 maps and newspaper subscriptions; and other special materials such as microfilm: Sam's Photofacts, pamphlets, topographic maps, and local history.

Services
Services available to customers are public access Internet computers, CD-ROM workstations (adult and children) and On-line Library Catalog. There is a Care Information Center; children's and adult programming; copiers; self check-out terminals; small group studyconference rooms; Federal and State depository collection, public meeting room (available on a rental basis); and Friends of the Library Rental Collection.

Facilities
The library, with an area of 48,721 square feet, features the following major areas: an adult reading room; a separate uniquely designed children's area; a young area; a circulation desk with 10 check-out terminals; a meeting room with a capacity of 176; and ample free parking. The circulation area features a stained glass window of California poppies sponsored by the Friends of the Lancaster Library.

Political Representatives
- U.S. Congressional District: 22nd
  Kevin McCarthy
  URL: http://kevinmccarthy.house.gov/
- U.S. Congressional District: 25th
  Howard "Buck" McKeon
  URL: http://www.house.gov/mckeon/
- State Senate District: 17th
  George Runner
  URL: http://republican.sen.ca.gov/web/17/
- State Assembly District: 36th
  Steve Knight
  URL: http://republican.assembly.ca.gov/members/a36/index.aspx
- Supervisorial District: 5th
  Michael D. Antonovich
  URL: http://www.antonovich.com/

Local Links
- Antelope Valley Press
  URL: http://www.avpress.com/
  Local newspaper's site with recent stories, photos, classified and personal ads.
- City of Lancaster
  URL: http://www.cityoflancasterca.org/
  Information on the City Council members, agendas, the city budget, the Planning Commission, and other municipal matters.
- Recent Earthquakes in California Nevada
  URL: http://quake.wr.usgs.gov/recenteqs/
Southern California map shows earthquakes recorded during the past week by Caltech/USGS Seismic Network. Magnitudes are indicated by the sizes of circles on the map.

Revised 07/10
History
Littlerock residents petitioned the County of Los Angeles for library service in August 1914. The original collection totaled 222 books supplied by the Count Los Angeles Public Library and was housed in a private residence. The library moved to a home of its own - Grandma’s Fruit Stand - in 1926. Early in 1938, Littlerock Library moved to the remodeled front room of a house near Keppel School. An eight-year hiatus began in 1949 when the library was among several small branches that were closed in favor of instituting bookmobile service in the Antelope Valley. However, in September 1957, a stationary facility in Littlerock was established. In June 1962, due to increasing public demand, the collection was moved to a 1,000 square foot leased building at 8135 Pearblossom High. Improvements and modernization to the building were made in 1974, and in 1980 an additional 600 square feet was acquired for expansion. On December 18, the Littlerock Library moved to its current location. The new location is 3,680 square feet with ample parking, an expanded children’s area, reading and periodical public Internet workstations, and a parenting collection dedicated to Mrs. Cec Bosworth.

Collection
The current collection consists of over 73,500 items. There are over 61,000 books, 5,900 audio recordings, 6,100 video recordings, 60 magazines, 2 newspapers, and other special materials such as telephone directories and pamphlets.

Services
Services available to customers are general reference assistance, an online catalog that provides access to the entire County Library collection and to online reference databases, public access Internet computers, and a Homework Center to support the education needs of students in the local schools.

View a map of other libraries in the Antelope Valley area.

For residents of the unincorporated areas, please contact your Supervisor for matters of local government.
Facilities
The library is 3,680 square feet with free parking and is located in the center of business community off of California Highway 138.

Political Representatives
- U.S. Congressional District: 25th
  Howard "Buck" McKeon
  URL: http://www.house.gov/mckeon/

- State Senate District: 17th
  George Runner
  URL: http://republican.sen.ca.gov/web/17/

- State Assembly District: 36th
  Steve Knight
  URL: http://republican.assembly.ca.gov/members/a36/index.aspx

- Supervisorial District: 5th
  Michael D. Antonovich
  URL: http://www.antonovich.com/

Local Links
- Antelope Valley Press
  URL: http://www.avpress.com/
  Local newspaper's site with recent stories, photos, classified and personal ads.

- Littlerock Town Council
  URL: http://www.littlerocktc.org/
  Get up to date information on our community, post your concerns, meet your neighbors and make new friends!

- Palmdale City Library
  URL: http://www.palmdalelibrary.org/
  The next closest public library located near Littlerock, this site provides information on the use of their library and collection.

Revised 06/10