

SAN BERNARDINO  
ASSOCIATED GOVERNMENTS  
**SAN BERNARDINO COUNTY REGIONAL  
GREENHOUSE GAS EMISSIONS  
INVENTORIES AND REDUCTION PLAN**  
**Environmental Impact Report**

SCH No. 2012111046

*Volume II: Draft EIR (Section 4.1 [City of Adelanto])*

*Prepared for*

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# Contents

## Volume I: Draft EIR (Chapter 1 to Section 4.0)

## Volume II: Draft EIR (Section 4.1 [City of Adelanto])

4.1	City of Adelanto.....	4.1-1
4.1.0	Introduction to the Analysis.....	4.1-1
4.1.1	Aesthetics.....	4.1.1-1
4.1.2	Agriculture/Forestry Resources.....	4.1.2-1
4.1.3	Air Quality.....	4.1.3-1
4.1.4	Biological Resources.....	4.1.4-1
4.1.5	Cultural Resources.....	4.1.5-1
4.1.6	Geology/Soils.....	4.1.6-1
4.1.7	Greenhouse Gas Emissions.....	4.1.7-1
4.1.8	Hazards/Hazardous Materials.....	4.1.8-1
4.1.9	Hydrology/Water Quality.....	4.1.9-1
4.1.10	Land Use/Planning.....	4.1.10-1
4.1.11	Mineral Resources.....	4.1.11-1
4.1.12	Noise.....	4.1.12-1
4.1.13	Population/Housing.....	4.1.13-1
4.1.14	Public Services.....	4.1.14-1
4.1.15	Recreation.....	4.1.15-1
4.1.16	Transportation/Traffic.....	4.1.16-1
4.1.17	Utilities/Service Systems.....	4.1.17-1
4.1.18	Mandatory Findings of Significance.....	4.1.18-1

## Volume III: Draft EIR (Section 4.2 [City of Big Bear Lake])

## Volume IV: Draft EIR (Section 4.3 [City of Chino])

## Volume V: Draft EIR (Section 4.4 [City of Chino Hills])

## Volume VI: Draft EIR (Section 4.5 [City of Colton])

## Volume VII: Draft EIR (Section 4.6 [City of Fontana])

## Volume VIII: Draft EIR (Section 4.7 [City of Grand Terrace])

## Volume IX: Draft EIR (Section 4.8 [City of Hesperia])

## Volume X: Draft EIR (Section 4.9 [City of Highland])

## Volume XI: Draft EIR (Section 4.10 [City of Loma Linda])

## Volume XII: Draft EIR (Section 4.11 [City of Montclair])

## Volume XIII: Draft EIR (Section 4.12 [City of Needles])

## Volume XIV: Draft EIR (Section 4.13 [City of Ontario])

## Volume XV: Draft EIR (Section 4.14 [City of Rancho Cucamonga])

## Volume XVI: Draft EIR (Section 4.15 [City of Redlands])

## Volume XVII: Draft EIR (Section 4.16 [City of Rialto])

## Volume XVIII: Draft EIR (Section 4.17 [City of San Bernardino])

## Volume XIX: Draft EIR (Section 4.18 [City of Twentynine Palms])

**Volume XX: Draft EIR (Section 4.19 [City of Victorville])**  
**Volume XXI: Draft EIR (Section 4.20 [City of Yucaipa])**  
**Volume XXII: Draft EIR (Section 4.21 [Town of Yucca Valley])**  
**Volume XXIII: Draft EIR (Chapter 5 to Appendix B)**

**Figures**

Figure 4.1-1 Location Map.....4.1-3  
 Figure 4.1-2 Emissions Reduction Profile for Adelanto ..... 4.1-10  
 Figure 4.1-3 Emissions by Sector for Adelanto ..... 4.1-11  
 Figure 4.1-4 Emission Reductions by Control and by Sector for Adelanto..... 4.1-12  
 Figure 4.1.9-1 Drainage Master Plan ..... 4.1.9-4  
 Figure 4.1.9-2 Potential Hazard Zones..... 4.1.9-5  
 Figure 4.1.10-1 General Plan Land Use..... 4.1.10-3

**Tables**

Table 4.1-1 Socioeconomic Data for Adelanto.....4.1-1  
 Table 4.1-2 Adelanto General Plan Policies .....4.1-5  
 Table 4.1-3 Emission Reduction by Sector for Adelanto..... 4.1-11  
 Table 4.1-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Adelanto..... 4.1-13  
 Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto ..... 4.1-16  
 Table 4.1.3-1 Ambient Air Quality Monitoring at Victorville Station..... 4.1.3-5  
 Table 4.1.3-2 State and Federal Ambient Air Quality Standards ..... 4.1.3-6  
 Table 4.1.3-3 Attainment Status of MDAB..... 4.1.3-9  
 Table 4.1.3-4 MDAQMD Attainment Plans ..... 4.1.3-10  
 Table 4.1.3-5 MDAQMD Thresholds of Significance..... 4.1.3-13  
 Table 4.1.3-6 City of Adelanto Regional Emissions (lb/day) ..... 4.1.3-15  
 Table 4.1.4-1 Sensitive Biological Resources in the Adelanto Planning Area Vicinity ..... 4.1.4-2  
 Table 4.1.7-1 2008 Net Total Emissions ..... 4.1.7-2  
 Table 4.1.7-2 GHG Emission Inventories and Reductions in the City of Adelanto..... 4.1.7-17  
 Table 4.1.13-1 Socioeconomic Data for Adelanto..... 4.1.13-1  
 Table 4.1.16-1 Intersection Level of Service (LOS) Definitions ..... 4.1.16-7

## 4.1 CITY OF ADELANTO

### 4.1.0 Introduction to the Analysis

This section of the EIR analyzes the potential environmental effects in the City of Adelanto from implementation of the Regional Reduction Plan. The city of Adelanto is located in the western portion of the Mojave Desert, also known as the Victor Valley (Figure 4.1-1 [Location Map]). It is approximately 40 miles north of the city of San Bernardino on Highway 395, within 20 miles of the cities of Victorville, Hesperia and Apple Valley. Adelanto covers approximately 125 square miles, including its Sphere of Influence, and a significant portion of the area in the southern section of the city is designated for industrial, manufacturing, and commercial uses. The Southern California Logistics Airport (formerly George Air Force Base) is just east of the City. Attractions near Adelanto include the Mirage Off-Road Vehicle Park and the High Desert Mavericks minor league baseball team, part of the Seattle Mariners franchise.

The city had a population of 31,765 as of the 2010 census. In 2020 the population of Adelanto is expected to be 46,084, an increase of 48 percent over 2008, the highest increase in San Bernardino County. Employment in the area is expected to increase by 35 percent, also one of the highest increases in the county.

Table 4.1-1 (Socioeconomic Data for Adelanto) presents socioeconomic data for Adelanto, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

<i>Category</i>	<b>2008</b>	<b>2020</b>
Population	31,200	46,084
Housing (du)	7,670	11,900
Single-Family (du)	5,666	8,418
Multifamily (du)	2,004	3,482
Employment (jobs)	5,432	7,313
Agricultural (jobs)	0	0
Industrial (jobs)	2,329	2,942
Retail Commercial (jobs)	846	1,228
Non-Retail Commercial (jobs)	2,257	3,142

du = dwelling unit

Two documents are used in reviewing the potential environmental impacts and mitigation within the City of Adelanto from implementation of the Regional Reduction Plan. The first document is the Adelanto General Plan, which is the planning document for the City and includes the required General Plan elements and General Plan goals and policies. Within the General Plan are policies that are used in the

environmental analysis to form thresholds of significance including the level of service (LOS) standard for traffic impacts, as one example, and the basis for programmatic mitigation measures. The second document is the Regional Reduction Plan City of Adelanto chapter that describes the reduction measures and reduction targets chosen by the City of Adelanto. This document is the proposed project as it pertains to the City of Adelanto.

## ■ Adelanto General Plan

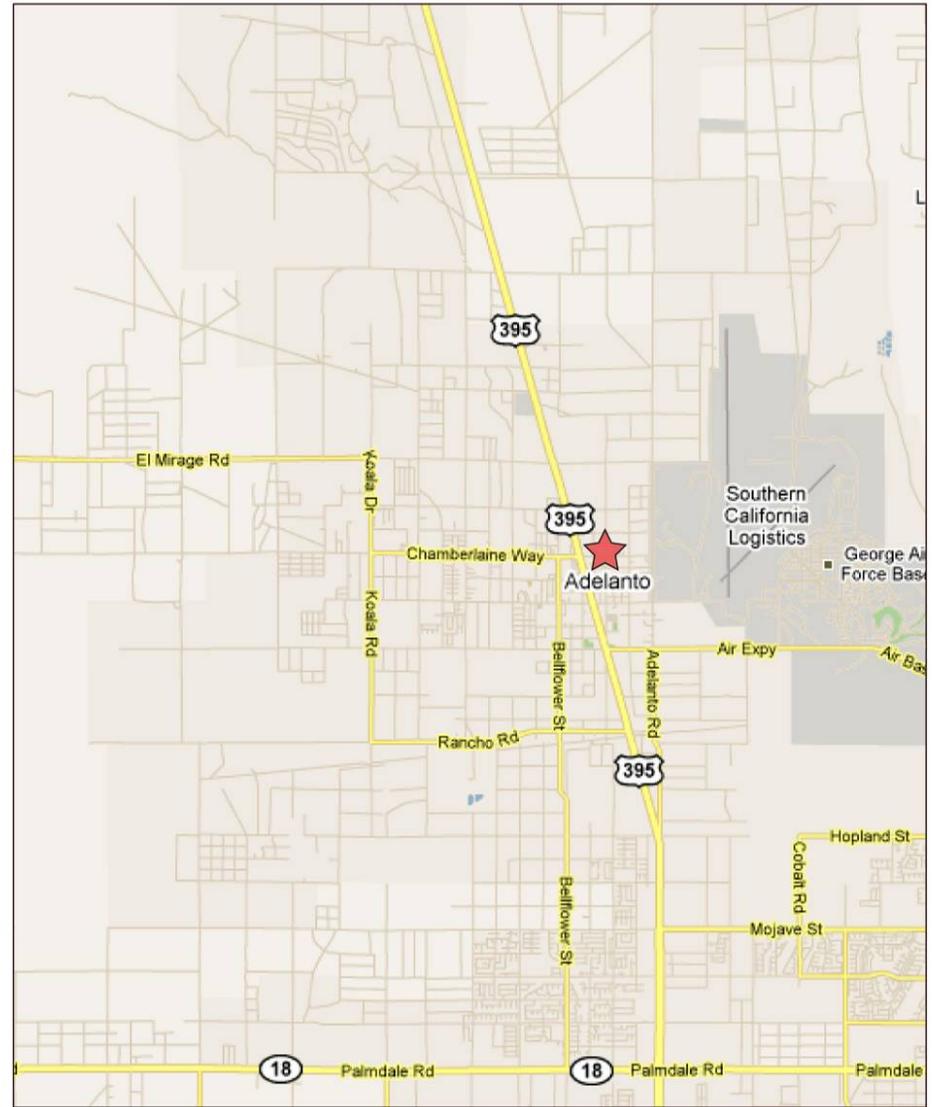
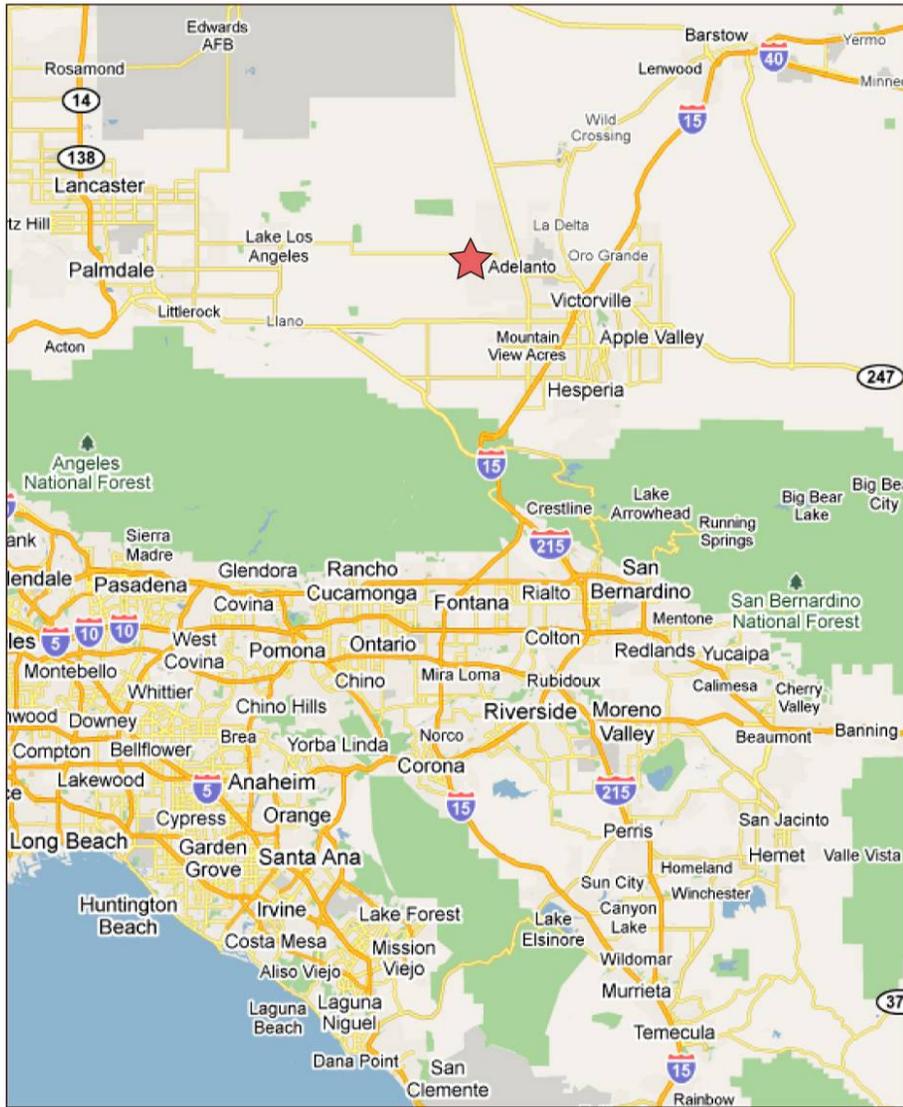
The Adelanto General Plan, adopted in 1994, addresses a 20-year planning horizon. The General Plan contains nine elements. It includes the seven elements required by state law: Land Use, Circulation, Housing, Open Space, Conservation, Noise, and Safety. It also includes subjects which, in the opinion of the City, relate to the physical development of Adelanto. These subjects (elements) address recreation, public services and facilities, community design, and other development-related activity. The General Plan serves as a base document for implementation programs including zoning ordinances, specific plans, development plans, area plans, and other permit processes. In addition, the General Plan provides guidelines for the preservation and conservation of open space and natural resources, biotic habitats, as well as protection of life and property from natural and man-made hazards.

The Adelanto General Plan policies that are relevant to the Regional Reduction Plan implementation are listed in Table 4.1-2 (Adelanto General Plan Policies).

## ■ The Adelanto Chapter of the San Bernardino County Regional GHG Reduction Plan

The City of Adelanto selected a goal to reduce its community GHG emissions to a level that is 30 percent below its projected GHG emissions level in 2020. The city will meet and exceed this goal through a combination of state (~65 percent) and local (~35 percent) efforts. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Adelanto's on-road, off-road, and building energy sectors in 2020. An additional reduction of 33,780 metric tons (MT) carbon dioxide equivalent (CO<sub>2</sub>e) will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); GHG Performance Standard for New Development (PS-1); and Solar Installations for Existing Housing (Energy-7). Adelanto's Plan has the greatest impacts on GHG emissions in the building energy, on-road transportation, and water conveyance sectors.

Figure 4.1-2 (Emissions Reduction Profile for Adelanto) shows Adelanto's 2008 GHG emissions total, 2020 BAU emissions forecast total, and the total emissions remaining after meeting the city's emissions reduction target (i.e., 30 percent below the projected 2020 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total ("2020 Plan"), representing the total emissions reductions achieved in 2020. As stated above, state/county reductions account for the majority (~65 percent) of the total reductions needed to achieve the 2020 target.



Source: City of Adelanto General Plan, 1994.

Figure 4.1-1  
Location Map



<b>Table 4.1-2 Adelanto General Plan Policies</b>	
<b>Policy No.</b>	<b>Policy</b>
<b>LAND USE ELEMENT</b>	
LU 1.1	Promote low per capita water use through the use of low water consumptive plant materials/ desert plants (xeriscape).
LU 1.2	Retain natural drainage channels and assure construction of facilities necessary to accommodate flows generated by proposed development. Retention areas and spreading grounds are to be incorporated where feasible.
LU 1.3	Promote the addition of wastewater recycling facilities and the reuse of treated water for appropriate purposes.
LU 1.5	Protect environmentally unique and fragile areas such as bluffs, Joshua Tree woodland, the Mojave River Corridor and sensitive wildlife habitat areas.
LU 2.1	Encourage growth to occur according to the most efficient sequence from existing development to planned project areas.
LU 2.3	Allow for a range of street standards appropriate for the type and density of development, as well as the projected level of service of each roadway at buildout of the General Plan.
LU 3.2	Offer a wide range of development opportunities for investors, developers, residents and businesses. The City encourages the development of mixed use projects, providing a balance of homes, jobs, and services.
LU 3.3	Discourage the proliferation of "urban sprawl" by utilizing the general plan framework to foster a sense of community identity.
RE 1.1	Encourage a variety of residential development to help support the growing employment base, including single family, multifamily, and apartment projects.
RE 1.2	Encourage higher density residential developments in areas of Adelanto that are located around commercial centers, and major urban nodes. Mixed Use projects are considered ideal, in that jobs, homes, and services are in close proximity.
RE 3.1	Encourage the establishment of funding mechanisms to pay for the provisions of infrastructure and services to serve residential areas.
RE 4.2	Encourage the development of residential housing to take place via tracts, or larger scale developments as opposed to single lot development scattered throughout the City.
CLU 1.2	Plan for commercial areas at major arterial intersections (nodes) throughout the City.
CLU 2.1	Encourage adequate provision of infrastructure, circulation and public services as a condition of all commercial development.
CLU 3.1	The City's circulation plan will minimize through traffic on residential neighborhood streets.
CLU 3.2	Require that commercial developments minimize the impacts on residential areas from traffic, lights, visual appearance of parking and loading areas, building bulk and height, noise and drainage. Such means as landscaping, berms, fencing, trees, Open space, cul-de-sacs, building orientation, and lower intensity of commercial uses (e.g. offices) should be utilized.
CLU 3.4	Where feasible, pedestrian and bike paths should connect commercial development with adjacent residential areas.
MI 3.1	Prepare a circulation plan that minimizes truck and through traffic on residential streets.
MI 3.2	Where feasible, pedestrian and bike paths should connect MI development to residential neighborhoods.
MI 4.1	Encourage the incorporation of bus stops, van pool programs, or other transit options as a condition of development.
OPC 1.2	Encourage the use of existing drainage channels/corridors to link proposed park sites via trails networks.
OPC 1.3	Encourage the location of parks adjacent to the Open Space/Drainage/Trails Network to foster linkage between recreational facilities.
OPC 3.1	Ensure that construction of all facilities in parks and open space areas comply with standards set forth in the Development Standards and Community Design Element.
<b>HOUSING ELEMENT</b>	
3	Encourage development of residential uses in strategic- proximity to employment centers and transportation routes.

**Table 4.1-2 Adelanto General Plan Policies**

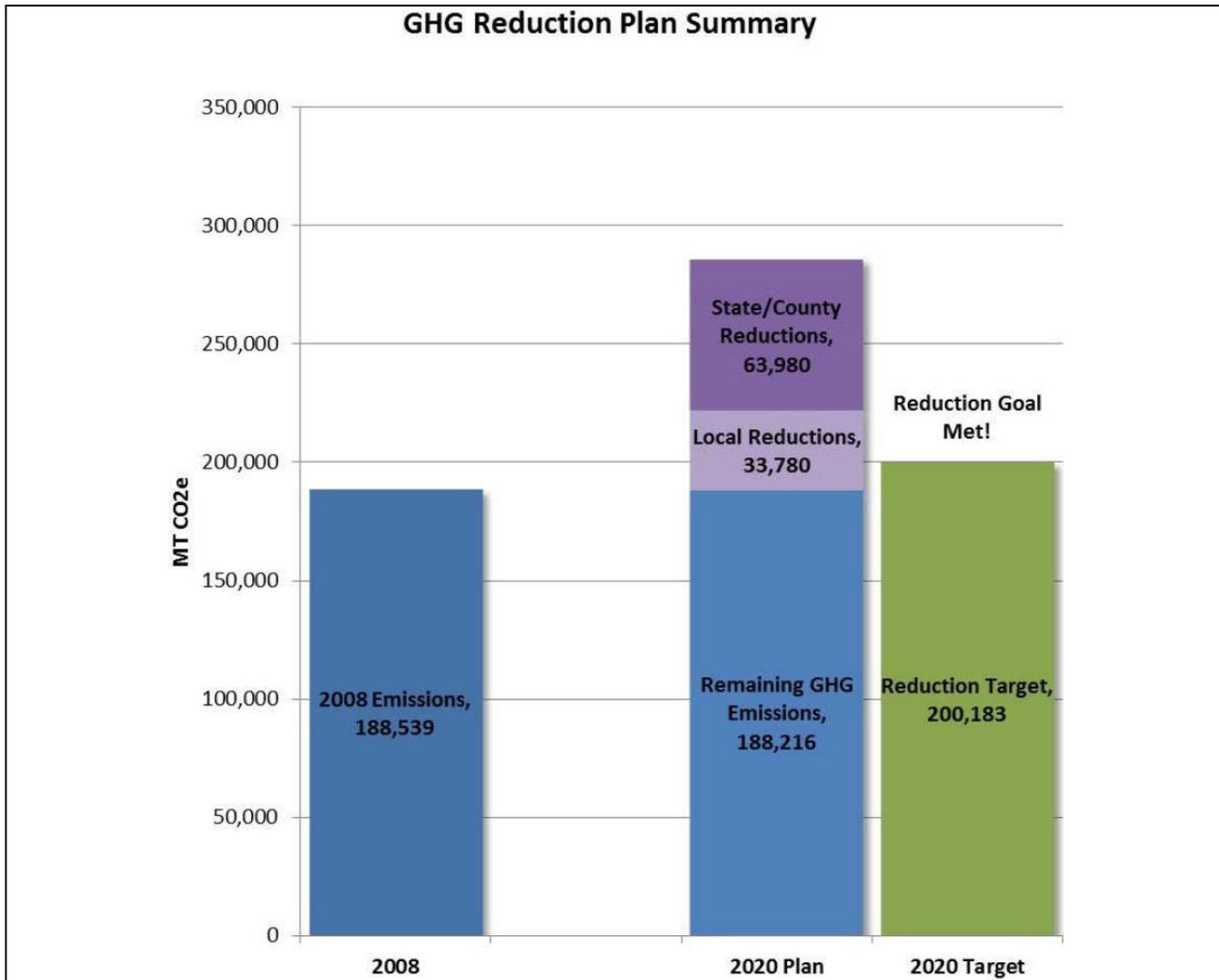
<b>Policy No.</b>	<b>Policy</b>
3	Implement the following criteria for evaluation: affordable housing; adequate public services and facilities; adjacent land uses which are compatible with residential development; and convenient access to: public transportation and freeways, employment centers, recreational facilities (passive and active), schools, and neighborhood commercial areas.
<b>CIRCULATION ELEMENT</b>	
1	Establish all major rights of way according to the requirements of the buildout projections of the General Plan.
2	Develop a consistent design of roadways and landscape treatments that allow for improved visual quality.
3	Utilize high quality construction standards for all roadways, sidewalks and paved areas to increase the longevity of the system.
4	Allow the existing U.S. 395 roadway to become Adelanto's business route once the Freeway 395 plans are set forward.
5	Coordinate efforts with local agencies, Caltrans, the County Road Dept., and the Federal Transportation Department in the planning of a regional transportation system.
6	Investigate all options for the implementation of a high speed rail system from the Orange, Riverside and San Bernardino County areas to a new major airport.
7	Begin investigating the applicability of a local/subregional transit system and necessary rights of way needed in Adelanto and the surrounding area.
<b>PARKS AND RECREATION ELEMENT</b>	
REC 1.18	The City promotes the establishment of hiking and bicycle trails as part of the system.
REC 1.19	The City will, in developing a trails system, coordinate between various park facilities within the City, as well as with a regional trail system in the County. Linkage of park facilities via the open space corridors is encouraged.
<b>CONSERVATION/OPEN SPACE ELEMENT</b>	
BIO 1.1	The City will only allow development which minimizes the destruction of biotic resources within the City, such as the Mojave River Corridor.
BIO 1.2	The City will encourage the use of native vegetation and drought tolerant trees to enhance the environment within the City.
BIO 1.3	Maintain drainage courses and utility rights of way in open space uses that do not conflict with those needs, but provide an attractive open space for the community, such as linear parks, trails, etc.
BIO 1.5	Areas of the Shadow Hills shall be retained as open space to protect their integrity as a unique habitat as well as wildlife movement corridor. Mining that restores the natural habitat will be permitted.
BIO 1.6	The Mojave River, as well as other major stream courses, shall remain as open space to be managed as wildlife movement corridors.
BIO 1.7	All land development projects shall be reviewed for consistency with the Land Use Map, which incorporates the above-mentioned mitigations/implementation strategies. The City may consider the offer of preferential assessments on real property as an incentive for retaining open space or conservation easements to protect sensitive species and their habitats.
BIO 1.8	The City shall require the applicant for a proposed project within or potentially affecting the resources of a Riparian Corridor or the Planning Areas natural drainage channels to enter into an agreement with the California Department of Fish and Game, as applicable, pursuant to Chapter 6 of Division 2 of the Fish and Game Code.
BIO 1.9	The City shall consult with the California Department of Fish and Game on any project that could affect a species which is listed or in fact rare, threatened or endangered (CEQA Guideline Section 15380, as identified by the biological survey).
BIO 1.10	The City will only allow development which minimizes or eliminates destruction of or damage to any and all significant biotic resources, i.e., the Mojave River corridor, Fremont Wash.

<b>Table 4.1-2 Adelanto General Plan Policies</b>	
<b>Policy No.</b>	<b>Policy</b>
BIO 1.11	The City will require the development of open space and recreation areas within all new residential developments as determined by the City.
BIO 1.12	The City shall designate, as may be appropriate, washes, drainage channels, utility easements and transportation rights of way as linear parkways. These linear parkways shall to the extent feasible, provide linkages and access to the other open space and recreational areas within the City.
CUL 1.3	The City will place developers responsible for the destruction of historic and archaeologically significant resources on file with the County of San Bernardino and the State of California, Office of Historic Preservation.
CUL 1.4	The City will require that all archeological resources, historic or prehistoric be evaluated in accordance with CEQA regulations and appropriate California guidelines prior to the adoption of mitigation measures and the acceptance of conditions of approval and required permit approvals.
NR 1.1	The City shall promote the development and use of alternative energy sources, such as passive solar in industrial, commercial, and residential developments.
NR 1.3	The City will encourage residential, commercial, industrial users to conserve the use of water and other renewable and non-renewable natural resources by incorporating conservation measures.
NR 1.4	All new developments will be required to implement energy conservation techniques into the development design.
NR 1.5	The City will restrict development in those areas which are determined to have significant reserves of natural resources, including gas, oil, and aggregate materials.
NR 1.6	Conservation techniques shall be required for proposed development (both domestic and industrial) to minimize consumption levels of renewable and non-renewable natural resources including water resources.
AQ 1.1	The City shall continue to work with the Mojave Desert Air Quality Management District and any other agencies in order to enforce and implement regional air quality plans.
AQ 1.2	The City will require all new developments, as defined by State requirements and implementing ordinances to institute any required Transportation Systems Management Plan (TSM).
AQ 1.3	The City will continue to review all new developments to determine the potential air quality impacts, as well as any other environmental analysis deemed appropriate by the City for projects not conforming to this General Plan.
AQ 1.4	The City will continue to work with the California State Air Resources Board and the Air Quality Management District to improve the implementation of the California Clean Air Act.
AQ 1.5	The City will organize land uses wherever possible to create a desirable jobs/housing balance for the region.
AQ 1.7	The City will consider dedicated truck routing in circulation plans and delivery scheduling for new and existing industries which are separated from the peak traffic hours.
AQ 1.8	The City will consider all feasible means of reducing vehicle miles traveled by City employees and residents.
AQ 1.9	The City will require new developments to consider pedestrian access in project plan designs.
AQ 1.10	The City encourages mixed-use developments that provide shopping and employment opportunities in close proximity to residential areas.
AQ 1.11	The City encourages the use of support facilities in office complexes and commercial areas to promote pedestrian commuting.
AQ 1.12	The City will require projects to consider land use alternatives that include mixed uses and pedestrian access improvements.
AQ 1.13	The City will monitor approved projects to determine conformance to the Mojave Desert Air Quality Attainment Plan.
WQ 1.1	The City will require that development be designed and constructed to conserve water utilizing low flow irrigation and plumbing fixtures and facilities.

**Table 4.1-2 Adelanto General Plan Policies**

<b>Policy No.</b>	<b>Policy</b>
WQ 1.2	The City will study the use of alternative water resources such as reclaimed water for irrigation of parks, recreational, industrial, residential, and other urban uses within the City.
WQ 1.3	The City will cooperate with all Federal, State, and County agencies, as well as local jurisdictions regarding the maintenance and improvement of both the quantity and the quality regional water resources.
WQ 1.4	The City will follow guidelines established by the State Water Quality Control Board, Lahontan Region regarding water quality issues, especially as they relate to the implementation of sewage systems and facilities.
WQ 1.5	The City will require that all new development utilize water conservation techniques to conserve water resources, such as the use of low-flow irrigation and plumbing systems in new and existing development.
WQ 1.6	Require all new industrial developments to provide a comprehensive storm water runoff plan (NPDES) which creates potential contamination of drainageways and the ground water resources
OS 1.1	The City will require that major drainage channels be maintained in their natural state to the maximum extent possible while protecting the public safety.
OS 1.2	The City will encourage the use of existing natural and manmade drainage channels to link proposed parks and recreational facilities via trails networks.
<b>NOISE ELEMENT</b>	
NS 1.2	Ensure that the design and improvement of future master planned roadways in the City are accomplished in a manner which minimizes noise impacts on adjacent educational facilities and adjoining neighborhoods.
NS 1.3	Ensure through the General Plan provisions and the objectives and policies contained therein, a compatible noise environment for all existing and future land uses within the City.
NS 1.12	Coordinate with State and Federal agencies to minimize transportation noise through transit way design, facility location or configuration modifications.
<b>SAFETY ELEMENT</b>	
Safety 1.2	The City will ensure that all appropriate construction and safety standards are incorporated into all new development.
Safety 1.3	The City will review all development proposals to determine the possible impacts of each development on emergency services.
Safety 1.9	The City will restrict development in those areas where slope exceeds fifteen (15) percent and in those areas subject to flooding.
Safety 1.10	Any development which is proposed in the Mojave Corridor (an area susceptible to liquefaction) will be required to complete a site specific geologic study.
Safety 1.11	The City will require all proposed developments to submit a soils and geologic report prepared by a certified geologist which shall include mitigation if any geologic hazards are identified.
Safety 1.13	The City will require the incorporation of defensible space design principles in commercial and multi-family projects.
Safety 1.15	The City will require that all new development and selected existing development comply with Federal, State, and local fire safety standards.
Safety 1.16	Surface runoff from new development shall be controlled by proper facilities to reduce downstream flood hazards.
Safety 1.17	The City will preserve designated drainage channels and water courses such as creeks and river beds as resource management areas or linear parks and recreational trails, whenever possible.
Safety 1.19	The Mojave River Corridor, which is subject to periodic flooding, shall remain as natural area open space, dedicated to passive recreation and natural flora/fauna.
Safety 1.20	The City will require that hydrologic and hydraulic studies are prepared at the time that major developments are proposed.
Safety 1.23	The City will enforce the programs and strategies of the San Bernardino Solid Waste Management Plan.

<b>Table 4.1-2 Adelanto General Plan Policies</b>	
<b>Policy No.</b>	<b>Policy</b>
<b>PUBLIC FACILITIES ELEMENT</b>	
<b>Water Goals</b>	
	Achieve a balanced hydrological system in terms of withdrawal and replenishment of water from groundwater basins.
	Achieve a reduction in the existing consumption of water by implementing conservation measures prior to approving new development in areas experiencing water supply shortages.
	Maximize the use of existing water resources through conservation programs and efficient ground and surface water management programs.
	Improve and rehabilitate water distribution systems to prevent losses from leakages and to maximize efficient water use.
	Achieve conservation, reclamation, reuse, and other refinements in water management practices as an essential part of all water supply programs, whether in, urban, rural, or agricultural sectors.
<b>Water Policies</b>	
	The following policies shall be utilized: coordination with all local agencies providing water service and protection to achieve effective local and regional planning; promote cooperation and sharing of information; provide mutual assistance in regional projects; assist in the development and implementation of regional water resource management plans and the incorporation of individual district plans.
<b>Sewer Goals</b>	
	The City shall encourage and participate with VVWRA and other local responsible agencies to: require wastewater collection and treatment systems which are consistent with the protection of public health and water quality; Promote activities/measures that facilitate the reclamation and reuse of wastewater; plan and construct new wastewater treatment and collection facilities on the basis of the City's adopted growth forecast and in conjunction with new development.
<b>Sewer Policies</b>	
	Connection to the sewer system shall be required for any proposed development or subdivision of land that exceeds the minimum requirements of the RWQCB. Exceptions may be approved subject to review by the Regional Water Quality Control Board for Package Wastewater Treatment Plants, individual onsite and multiple owner septic systems, holding tanks, and experimental systems.
<b>Drainage Goals</b>	
	The City shall encourage the development and construction of a local flood control system to: protect life and property from flood hazards; allow for joint use facilities for wildlife migration and recreational corridors; protect the quality of storm waters from urban runoff.
<b>Drainage Policies</b>	
	Surface runoff from new development shall be controlled by on-site measures including but not limited to: structural controls and restrictions regarding changes in topography, removal of vegetation, creation of impervious surfaces, and periods of construction, such that the need for off-site flood and drainage control improvements is minimized and such that run-off from the development will not result in downstream flood hazards.
	Consider ecological significance and aesthetic quality of natural drainage channels in the design of all drainage projects.
	Preserve designated drainage channels and water courses such as creeks and river beds as resource management areas or linear parks and recreation trails, when possible.
<b>COMMUNITY DESIGN ELEMENT</b>	
	(the Community Design Element does not include policies)
SOURCE: City of Adelanto, <i>Adelanto General Plan 1994</i> .	



**Figure 4.1-2 Emissions Reduction Profile for Adelanto**

Figure 4.1-3 (Emissions by Sector for Adelanto) presents emissions by sector, for both the 2020 BAU and the 2020 reduction or Regional Reduction Plan scenarios. The largest emissions contributions are in the on-road transportation, building energy, and off-road emissions sectors.

Table 4.1-3 (Emission Reduction by Sector for Adelanto) summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction (Regional Reduction Plan) results by sector. It shows the percent reduction in each sector’s emissions in 2020 and demonstrates that Adelanto exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, on-road transportation, and water conveyance sectors.

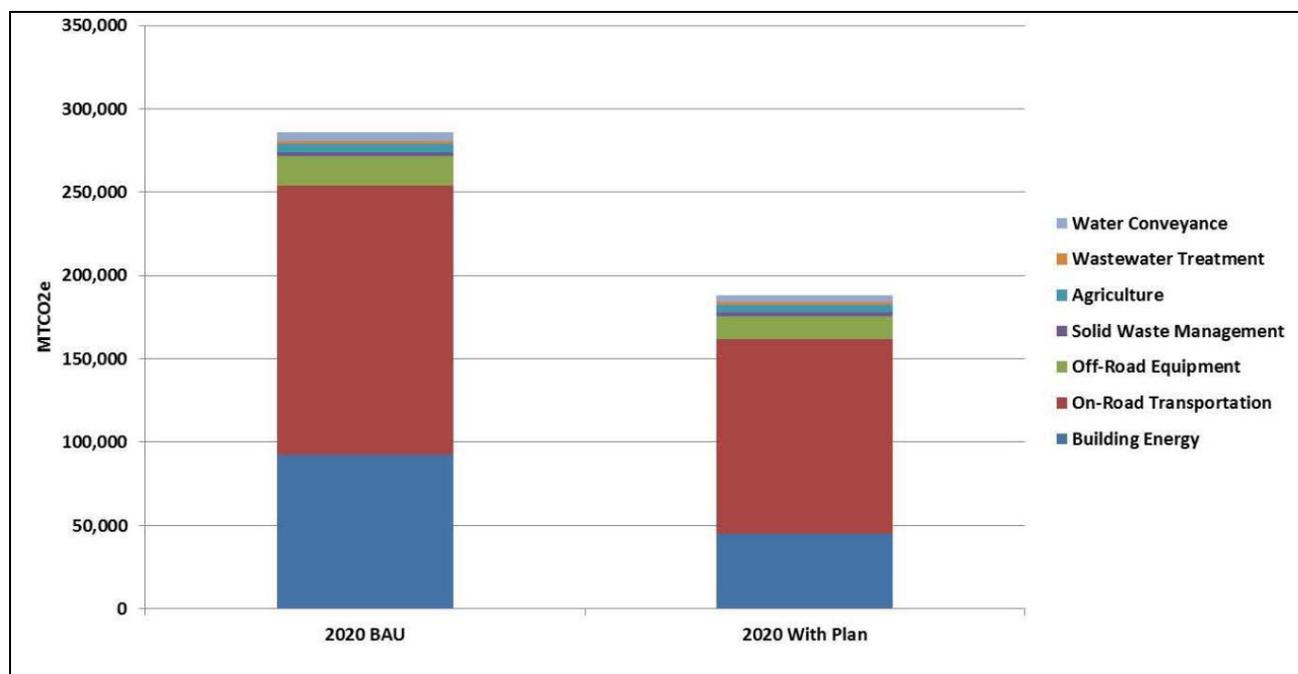


Figure 4.1-3 Emissions by Sector for Adelanto

Sector	2008	2020 BAU	Reductions	2020 Emissions with Plan	% Reduction
Building Energy	63,173	92,446	42,001	50,445	45.4%
On-Road Transportation	97,508	161,472	43,896	117,576	27.2%
Off-Road Equipment	12,144	17,655	3,157	14,498	17.9%
Solid Waste Management	1,744	2,381	270	2,110	11.3%
Agriculture	9,664	4,925	0	4,925	0.0%
Wastewater Treatment <sup>6</sup>	1,262	1,876	176	1,699	9.4%
Water Conveyance	3,045	5,222	1,122	4,100	21.5%
GHG Performance Standard*	—	—	7,139	—	—
<b>Total Emissions</b>	<b>188,539</b>	<b>285,976</b>	<b>97,760</b>	<b>188,216</b>	<b>34.2%</b>
<b>Reduction Goal</b>	—	—	<b>85,793</b>	<b>200,183</b>	<b>30.0%</b>
Met Goal?	—	—	Yes	Yes	Yes
<b>Reductions Beyond Goal</b>	—	—	<b>11,967</b>	—	—
Per-Capita Emissions	6.0	6.2	—	4.1	—
Per-Job Emissions	34.7	39.1	—	25.7	—
Excluded Stationary Source Emissions	16,597	22,015	—	—	—

SOURCE: San Bernardino Associated Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan, Draft*, Prepared by ICF International (December 2012).

Values may not sum due to rounding.

\* The GHG Performance Standard for New Development is not a sector of the inventory, but it provides broad reductions and contributes toward the City's reduction goal by promoting reductions in multiple sectors.

Figure 4.1-4 (Emission Reductions by Control and by Sector for Adelanto) presents emission reductions by sector and by control (i.e., state/county control versus local or city control). As stated previously, the majority of emissions reductions are due to state/county measures. Of the state/county measures, the majority of reductions are in the building energy and on-road transportation sectors. Of the local measures, the majority of reductions are in the building energy sector due to the implementation of SBX 7-7 (Water-4).

Table 4.1-4 (GHG Reduction Measures and Estimated 2020 Reductions for Adelanto) presents the reduction measures selected by Adelanto. For each measure, the short title and estimated GHG reductions in 2020 are listed. Measures are organized by state/county control and local control and listed by sector. The physical impacts of implementing the Local Measures are reviewed in this chapter of the EIR to determine the significance of the Regional Reduction Plan as it relates to the City of Adelanto.

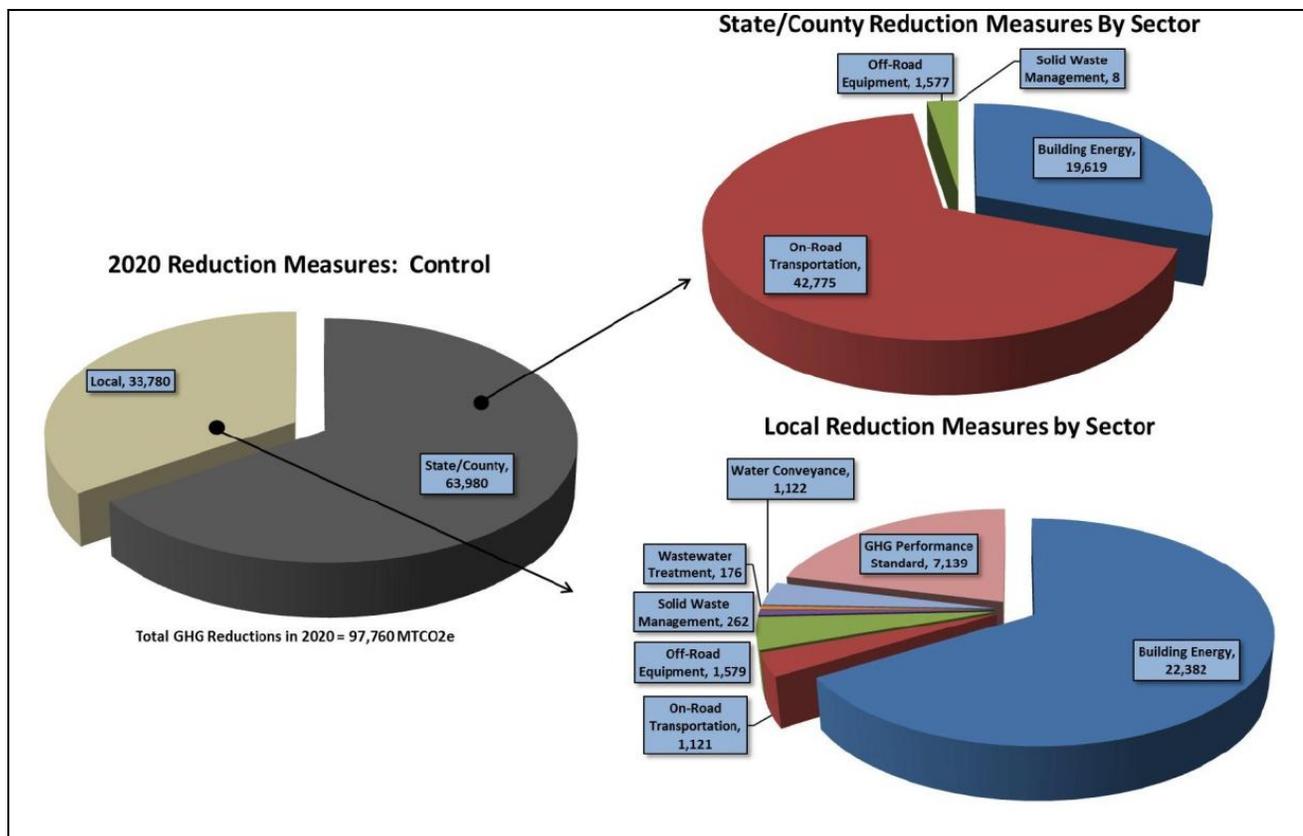


Figure 4.1-4 Emission Reductions by Control and by Sector for Adelanto

<b>Table 4.1-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Adelanto</b>		
<b>Reduction Measure Number</b>	<b>Description</b>	<b>Emissions Reductions</b>
<b>STATE AND COUNTY MEASURES</b>		
State-1	Renewable Portfolio Standard	11,147
State-2	Title 24	5,870
State-3	AB 1190	2,265
State-4	Solar Water Heating	99
State-5	Industrial Boiler Efficiency	238
State-6	Pavley and Low Carbon Fuel Standard	39,199
State-7	AB 32 Transportation Reduction Strategies	3,576
State-8	Low Carbon Fuel Standard-Off-road	1,577
State-9	AB 32 Methane Capture	6
County-1	County GHG Reduction Plan Landfill Controls	2
<b>LOCAL MEASURES</b>		
<b>Building Energy</b>		
Energy-1	Energy Efficiency of Existing Buildings	832
Energy-2	Outdoor Lighting	726
Energy-3	Green Building Ordinance	1,702
Energy-4	Solar Installation for New Housing	1,817
Energy-5	Solar Installation for New Commercial	765
Energy-7	Solar Installation for Existing Housing	2,700
Energy-8	Solar Installation for Existing Commercial/Industrial	379
Energy-9	Co-Generation Facilities	23
<i>Land Use-1 (BE)</i>	<i>Tree Planting</i>	<i>172</i>
<i>Land Use-2 (BE)*</i>	<i>Promote Rooftop Gardens</i>	<i>4</i>
<i>Wastwater-2 (BE)</i>	<i>Equipment Upgrades</i>	<i>303</i>
<i>Water-1 (BE)</i>	<i>Require Tier 1 Voluntary CALGreen Standards for New Construction</i>	<i>842</i>
<i>Water-2 (BE)</i>	<i>Renovate Existing Buildings to Achieve Higher Levels of Water Efficiency</i>	<i>1,068</i>
<i>Water-4 (BE)</i>	<i>Implement SBX 7-7</i>	<i>11,049</i>
<b>On-Road Transportation</b>		
Transportation-1	Sustainable Communities Strategy	1,121
<b>Off-Road Equipment</b>		
OffRoad-1	Construction Equipment	1,347
OffRoad-2	Idling Ordinance	172
OffRoad-3	Landscaping Equipment	60

<b>Table 4.1-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Adelanto</b>		
<b>Reduction Measure Number</b>	<b>Description</b>	<b>Emissions Reductions</b>
<b>Solid Waste Management</b>		
Waste-2	Waste Diversion	262
<b>Wastewater Treatment</b>		
<i>Water-1 (WT)</i>	<i>Require Tier 1 Voluntary CALGreen Standards for New Construction</i>	25
<i>Water-2 (WT)</i>	<i>Renovate Existing Buildings to Achieve Higher Levels of Water Efficiency</i>	19
<i>Water-4 (WT)</i>	<i>Implement SBX 7-7</i>	133
<b>Water Conveyance</b>		
Water-1	Require Tier 1 Voluntary CALGreen Standards for New Construction	856
Water-2	Renovate Existing Buildings to Achieve Higher Levels of Water Efficiency	867
Water-3	Water Efficient Landscaping Practices	1,121
Water-4	Implement SBX 7-7	614
<i>Wastewater-3 (WC)</i>	<i>Recycled Water</i>	6
<b>GHG Performance Standard for New Development</b>		
PS-1	GHG Performance Standard for New Development (30% below Projected BAU emissions for projects)	7,139
<b>Total Reductions</b>		<b>97,760</b>

SOURCE: San Bernardino Associated Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, Draft, Prepared by ICF International (December 2012).

BE = building energy; WT = wastewater treatment; WC = water conveyance

Values may not sum due to rounding.

The Low Carbon Fuel Standard (LCFS) reduces emissions in both the on-road transportation and off-road equipment sectors, because the standard reduces the carbon content of fuels used in both sectors.

Measures in *italics* result in GHG reductions in multiple sectors. For example, Water-1 reduces the amount of water consumed in the city, which reduces emissions for conveying that water (water conveyance sector), the energy needed to heat that water (building energy sector), and the energy required to treat the associated wastewater (wastewater treatment sector).

\* These are measures where the avoided annual GHG emissions are small relative to the cost and effort to implement the measure on the City's part. Although the City has selected this measure, ICF recommends that the City not pursue this GHG reduction measure.

## ■ Summary of Environmental Impacts and Mitigation Measures

The Regional Reduction Plan City of Adelanto chapter describes the proposed project including the reduction measures and reduction targets chosen by the City of Adelanto. The physical impacts of implementing these reduction measures and achieving the reduction targets is reviewed in this chapter of the EIR to determine the significance of the Regional Reduction Plan as it relates to the City of Adelanto. No comment letters specific to the City of Adelanto were received in response to the notice of preparation (NOP) circulated for the proposed project.

Table 4.1-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto) summarizes the environmental impacts of implementing the Regional Reduction Plan local reduction measures by issue area.

Mitigation measures were identified to reduce the following potentially significant impact to less-than-significant levels:

Cultural Resources (Historical Resources)

**MM4.1.5-1**

*Prior to activities that would physically affect any buildings or structures 50 years old or older or affect their historic setting, a cultural resource professional who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History shall be retained to determine if the project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Adelanto, the appropriate archival research, including, if necessary, a records search of the Archaeological Information Center (AIC) of the California Historical Resources Information System (CHRIS) and a pedestrian survey of the proposed improvements area to determine if any significant historic-period resources would be adversely affected by the proposed Regional Reduction Plan activities. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historical resources within the improvements area and includes recommendations and methods for eliminating or reducing impacts on historical resources. Methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource.*

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
<b>Aesthetics</b>																				
Scenic vistas	LS	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Scenic highways	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Visual character or quality	LS	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	LS	LS	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Light and glare	LS	LS	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Agriculture/Forestry Resources</b>																				
Convert farmland to nonagricultural use	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with existing agricultural zoning or Williamson Act	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with existing forest land or timberland zoning	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Loss or conversion of forest land to nonforest land	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Other changes causing conversion of farmland to nonfarmland use or forest land to nonforest land use	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
<b>Air Quality</b>																				
Conflict or obstruct air quality management plan	LS	NI	LS	LS	LS	LS	LS	LS	NI	NI	LS	LS	LS	LS	LS	NI	NI	NI	NI	LS
Violation of air quality standard	LS	NI	LS	NI	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS						
Exposure of sensitive receptors	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	LS	LS	LS	NI	NI	NI	NI	LS
Creation of objectionable odors	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
Cumulatively considerable net increase of any nonattainment criteria pollutant	LS	NI	LS	LS	LS	LS	LS	LS	NI	NI	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
<b>Biological Resources</b>																				
Special-status species	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Riparian habitat or other sensitive natural community	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Protected wetlands	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Wildlife movement	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with any local policies or ordinances protecting biological resources	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with habitat conservation plan	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Cultural Resources</b>																				
Substantial adverse change in significance of a historical resource	LS/MM	NI	NI	NI	LS/MM	LS/MM	LS/MM	NI	NI	NI	NI	LS/MM	NI	NI	NI	NI	NI	NI	NI	NI
Substantial adverse change in significance of a archaeological resource	LS/PR	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	LS/PR	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Disturb any human remains	LS/PR	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS/MM	NI	NI	NI	LS/MM	LS/MM	LS/MM	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Geology/Soils</b>																				
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
Substantial soil erosion or loss of topsoil	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Located on a geologic unit or soil that is unstable, resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Located on expansive soil	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Greenhouse Gas Emissions/Global Climate Change</b>																				
Generate greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Conflict with an applicable plan, policy, or regulation to reduce greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
<b>Hazards/Hazardous Materials</b>																				
Create significant hazard through the routine transport, use, or disposal of hazardous materials	NI	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Create significant hazard through release of hazardous materials	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Emit hazardous emissions or handle acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving wildland fires	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Hydrology/Water Quality</b>																				
Violate any water quality standards or waste discharge requirements	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	LS	LS	LS	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI
Alter the existing drainage pattern of the site or area, resulting in substantial erosion or siltation	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Alter the existing drainage pattern of the site or area, resulting in on- or off-site flooding	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Otherwise degrade water quality	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI
Place housing within a 100-year flood hazard area	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Place within a 100-year flood hazard area structures that would impede or redirect flood flows	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Inundation by seiche, tsunami, or mudflow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	LS	LS	LS	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																				
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1	
<b>Land Use/Planning</b>																					
Physically divide an established community	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Conflict with any applicable land use plan, policy, or regulation	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	NI	NI	NI	LS	LS	LS	LS	LS
Conflict with any applicable habitat conservation plan or natural community conservation plan	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	NI	NI	NI	LS	LS	LS	LS	LS
<b>Mineral Resources</b>																					
Loss of availability of a known mineral resource	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Loss of availability of a locally important mineral resource recovery site	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
<b>Noise</b>																					
Noise levels in excess of standards established in the local general plan or noise ordinance	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive groundborne vibration or groundborne noise levels	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Permanent increase in ambient noise levels	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Temporary or periodic increase in ambient noise levels	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive noise levels within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive noise levels within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
<b>Population/Housing</b>																				
Induce substantial population growth	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of existing housing	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of people	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
<b>Public Services</b>																				
Provision or need of new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for public services	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
<b>Recreation</b>																				
Physical deterioration of recreational facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Construction or expansion of recreational facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Transportation/Traffic</b>																				
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	LS
Conflict with an applicable congestion management program	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	LS
Change in air traffic patterns that results in substantial safety risks	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Increase hazards due to a design feature or incompatible uses	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Inadequate emergency access	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI

**Table 4.1-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Adelanto**

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	Regional Reduction Plan Local Reduction Measure																			
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-1	Land Use-2	Wastewater-2	Transportation-1	Off-Road-1	Off-Road-2	Off-Road-3	Water-1	Water-2	Water-4	Waste-2	PS-1
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
<b>Utilities/Service Systems</b>																				
Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI	NI
Construction or expansion of new or existing water or wastewater treatment facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI	NI	NI
Construction or expansion of new or existing stormwater drainage facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI
Insufficient water supplies from existing entitlements and resources, or need new or expanded entitlements	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	LS	NI	NI
Inadequate wastewater treatment capacity	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	LS	LS	LS	NI	NI
Insufficient permitted solid waste disposal capacity	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI
Noncompliance with federal, state, or local statutes and regulations related to solid waste	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	LS	NI	NI	NI	NI	LS	LS	LS	LS	NI

## 4.1.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from the Adelanto General Plan (1994a) and associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing aesthetics were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

The City of Adelanto is located in the high desert region of San Bernardino County. The City is on the southwest end of the Mojave Desert and on the eastern side of the San Gabriel Mountains, approximately 36 miles north of the City of San Bernardino. Southern California Logistics Airport (formerly George Air Force Base) is located immediately adjacent to the City of Adelanto and forms the eastern edge of the community. U.S. Highway 395, which runs north/south through Adelanto, bisects the City.

The City's visual character is largely defined by its relatively flat topography with no significant landforms within the planning area, its remoteness, and its proximity to the Mojave Desert, particularly in the northern part of the planning area. The high desert natural vegetation and its relative sparseness is an essential component of the visual landscape. Open space resources that are visual assets include the Shadow Hills, and the Mojave River, as well as the natural drainage courses designated as Drainage/Open Space Corridors. In addition, the BLM's El Mirage Off-Highway Vehicle Recreation Area, the flood control rights-of-way, and the public utility rights-of-way are also considered open space resources, which contribute to the natural landscape.

The visual character of the urbanized portions of the City has been well-established as a result of the City's proximity to the former George Air Force Base and its location along a major transportation corridor that provided for large-scale warehousing, manufacturing, and commercial activity. The urbanized residential areas are characterized by single-story buildings of varying ages and architecture. There are few trees. Landscaped areas around individual homes, tree plantings along some streets, and parks provide some visual relief. Manufacturing and other large-scale non-residential development is dominated by low-rise buildings made of various materials and coatings, extensive paved areas, and little architectural variation.

Light and glare in the City's planning area is generally limited to the urbanized parts of the city where there is public and private lighting in commercial districts, street lighting in residential areas, and glare from vehicle headlights.

## ■ Regulatory Framework

### ***Federal***

There are no federal regulations that are applicable to aesthetics.

### ***State***

#### **Scenic Highways**

The California State Legislature established the Scenic Highway Program, which is administered by the California Department of Transportation (Caltrans). The state scenic highway system is a list of highways, mainly state highways, which have been designated by Caltrans as scenic highways. There are no state- or county-designated scenic highways in Adelanto.

#### **Outdoor Lighting Energy-Efficiency Standards**

California Code of Regulations (CCR) Title 24, Parts 1 and 6, Building Energy Efficiency Standards establishes requirements for outdoor lighting for residential and nonresidential development. The standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone, which are designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban).

#### **Solar Energy Systems**

Government Code Section 65850.5 provides statewide standards to promote development of solar energy by providing timely and cost-effective administrative review of these systems for installation within residential, agricultural, and business areas. The law prohibits local jurisdictions from adopting ordinances that create unreasonable barriers to development of solar energy systems and specifically identifies design review for aesthetic purposes as an unreasonable barrier.

### ***Regional***

#### **San Bernardino County Ordinance**

Chapter 83.07 regulates glare, outdoor lighting, and night sky protection. For instance, outdoor lighting of commercial or industrial land uses in the Valley Region must be fully shielded to preclude light pollution or light trespass. Lighting fixtures used to illuminate a new off-site sign and exterior illuminated on-site signs in the Mountain and Desert regions are required to be mounted on the top of the sign structure and must comply with the shielding requirements specified in detail in the County Code. The purpose of Chapter 83.07 is to encourage outdoor lighting practices and systems that will minimize light pollution, glare, and light trespass; conserve energy and resources while maintaining nighttime safety, visibility, utility, and productivity; and curtail the degradation of the nighttime visual environment.

## Local

### City of Adelanto Municipal Code

Municipal Code Section 17.90.040 identifies measures that must be used in development projects to minimize light spillover and glare.

The City has also adopted regulations that pertain to wind and solar energy systems (Municipal Code Chapter 17.80 [Special Use Standards]). Sections 17.80.060 and 17.80.070 define three categories of wind systems and solar systems, respectively.<sup>1</sup> Category One systems have specific lot size, height, and setback requirements (Section 17.80.080, Table 80-1).

### Adelanto General Plan

The General Plan policies that are applicable to aesthetics<sup>2</sup> are as follows:

- Policy CLU 3.2** Require that commercial developments minimize the impacts on residential areas from traffic, lights, visual appearance of parking and loading areas, building bulk and height, noise and drainage. Such means as landscaping, berms, fencing, trees, Open space, cul-de-sacs, building orientation, lower intensity of commercial uses (e.g. offices) should be utilized.
- Policy OPC 3.1** Ensure that construction of all facilities in parks and open space areas comply with standards set forth in the Development Standards and Community Design Element.
- Policy NR 1.4** All new developments will be required to implement energy conservation techniques into the development design.
- Policy CIR 2** Develop a consistent design of roadways and landscape treatments that allow for improved visual quality.

While the General Plan includes a Community Design Element, it has not adopted policies specific to visual quality/aesthetics. However, it does establish guidelines that are applicable to residential, commercial, manufacturing/industrial, freeway/highway frontage, roadways/streetscape, and public facilities and open space land uses.

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<sup>1</sup> Category One is a large system with one or more units producing power for sale. This category generates power in excess of 500 kW that power for offsite use and requires a conditional use permit. Category Two is a medium system for existing onsite structures, producing 500 kW or less, and requires a minor conditional use permit. Category Three applies to existing onsite single-family residential structures, producing 25 kW or less. These systems require approval of a site plan and can be pole/tower or roof-mounted (wind system) or ground- or roof-mounted (solar).

<sup>2</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

## ■ Project Impact Evaluation

### Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on aesthetics if it would do any of the following:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

### Analytic Method

Regional Reduction Plan reduction measures were reviewed to determine if they would include elements that, if implemented, would result changes in the viewshed that could be subjectively perceived as adverse or negative, or if implementation of the measures would be inconsistent with applicable General Plan goals or City standards pertaining to community design and visual quality.

### Effects Not Found to Be Significant

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

The Shadow Hills and the Mojave River, as well as the natural drainage courses designated as Drainage/Open Space Corridors are valued for their scenic resource value. Regional Reduction Plan measures could involve solar energy systems for existing and new residential and commercial development. Roof-top or ground-mounted solar arrays would not be of a height, scale, or mass that would interfere with views of Shadow Hills and more distant mountain ranges, the Mojave River, or open space areas. City Municipal Code Chapter 17.80 identifies specific design requirements for alternative energy systems, which would reduce potential impacts. Measures that would be implemented under On-Road-1, which encourages transit-oriented development, could include features to promote transit use (e.g., park-and-ride lots). Park-and-ride lots would be situated adjacent to established roadways, which would not alter a scenic vista. Pedestrian and bicycle network improvements would generally be within existing urbanized areas. Therefore, impacts on scenic vistas would be ***less than significant***. No mitigation is required.

Threshold	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
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Scenic resources in Adelanto are limited to long-distance views of mountains that surround the area and the natural vegetation that characterizes the Mojave Desert as well as natural drainages. There are few trees, no significant landforms, nor other distinct visual attributes within Adelanto. No scenic roads and highways have been designated within the City of Adelanto. Implementation of the Regional Reduction

Plan measures in Adelanto, such as energy-efficiency retrofits on existing homes and solar energy systems on existing and new homes and on or adjacent to commercial businesses would have little or no effect on scenic resources or highways. Impacts would be *less than significant*. No mitigation is required.

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

The urbanized portion of Adelanto is largely built out. As such, the visual character of the City as a whole has already been established, particularly in the urbanized locations where measures such as retrofits on existing buildings and new renewable energy systems on commercial would likely be installed.

These projects would be reviewed by the City to ensure compliance with City Municipal Code Chapter 17.80 (design requirements for alternative energy systems) and General Plan Community Design Element Guidelines to ensure that the visual quality of each affected site and surrounding environment is not substantially compromised by the installation of energy-saving measures.

The City of Adelanto has also selected reduction measure Land Use-1, which encourages a citywide tree planting goal or tree preservation goal. Implementation of this measure would enhance overall visual quality in the City.

Therefore, implementation of the Regional Reduction Plan in Adelanto would not substantially degrade the existing visual character or quality of the site and its surroundings, and the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?
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The developed portions of Adelanto contain numerous sources of light and glare from streetlights, freestanding lights, building-mounted lights, illuminated signage, reflective building materials, and vehicular headlights. The undeveloped portions of the planning area contain few, if any sources of light and glare.

Implementation of the Regional Reduction Plan could result in energy-efficient or energy-generating rooftop structures such as photovoltaic arrays on or adjacent to existing and new buildings. Rooftop solar panels, to be effective, must be oriented to maximize solar radiation absorption. Solar panels are designed to maximize sunlight absorption and are generally constructed of dark, light-absorbing materials and are composed of a minimum of reflective surfaces. Therefore, it is not anticipated that solar arrays would result in an increased amount of glare even if they were oriented in such a way as to face sensitive receptors or motorists. City Municipal Code Chapter 17.80 identifies specific design requirements for alternative energy systems, which would reduce potential glare impacts.

Measure Energy-2 encourages lighting along the urban-rural edge not to exceed one-half the current maximum lighting standard. It also would prohibit continuous all night outdoor lighting in parks, sport facilities, and construction sites (unless safety is compromised). In addition, it encourages implementation of CALGreen outdoor lighting standards to achieve energy efficiency. This could be

considered a benefit of the proposed project because it could help reduce sources of nighttime lighting that contribute to sky glow.

Therefore, implementation of the Regional Reduction Plan measures would not create new sources of light or glare that would adversely affect daytime or nighttime views. The impact would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

The City has concluded buildout of the General Plan is expected to result in minimal changes in urban uses that would, in turn, alter visual quality. Implementation of the Regional Reduction Plan in Adelanto would not represent a cumulatively considerable contribution to those effects. Energy retrofits and installation of energy-saving features in new development would be on existing or new structures, and City Municipal Code Chapter 17.80 identifies specific design requirements for alternative energy systems, which would reduce potential aesthetic impacts. On-Road-1 measures (e.g., TOD, park-and-rides, bicycle/pedestrian network improvements) would not result in a substantial change in the viewshed. The developed portions of Adelanto contain numerous sources of light and glare. Growth would continue along the U.S. Highway 395 corridor, where there is already extensive commercial development, and in residential areas. Implementation of the regional measures in Adelanto would not contribute to glare impacts, and, with implementation of Energy-2 (outdoor lighting standards), for example, could help reduce the effects of nighttime lighting on sky glow. Therefore, the proposed project would not result in a cumulatively considerable contribution to light and glare effects. Cumulative aesthetics impacts would be *less than significant*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

## 4.1.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (2004a) and associated environmental impact report (2004b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing agriculture/forestry resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

Adelanto is located in the Mojave Desert and there is no known farming or forestry businesses operating in the City.

### ■ Regulatory Framework

#### ***Federal***

There are no federal regulations pertaining to agricultural resources.

#### ***State***

##### **Williamson Act**

The California Land Conservation Act of 1965, or the Williamson Act, allows city or county governments to preserve agricultural land or open space through contracts with landowners. Contracts last 10 years and are automatically renewed unless a notice of nonrenewal is issued. The preservation of agricultural land through Williamson Act contracts is meant to discourage premature and unnecessary conversion to urban uses. Landowners benefit from the contract by receiving property tax assessments that are much lower than the normal rates, based on farming and open space land values rather than urban full market values.

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land use and to help preserve areas of Important Farmland. It divides the state's land into eight categories of land use designation based on soil quality and existing agriculture uses to produce maps and statistical data. The maps and data are used to help preserve productive farmland and to analyze impacts on farmland.

#### ***Regional***

##### **County of San Bernardino Development Code**

The County of San Bernardino Development Code includes Agricultural Land Use Zoning Districts that provide sites for commercial agricultural operations, agricultural support services, rural residential uses and similar and compatible uses. Open space and recreation uses may occur on nonfarmed lands within these AG (Agriculture) land use zoning district. In addition, the Development Code also includes

Additional Agriculture (AA) Overlays, which are intended to create, preserve, and improve areas for small-scale and medium-scale agricultural uses utilizing productive agricultural lands for raising, some processing, and the sale of plant crops, animals, or their primary products. It is an overlay where agricultural uses exist compatibly with a variety of rural residential lifestyles. Agricultural Preserve (AP) Overlays were also established for properties that may be subject to a Land Conservation Contract executed between the landowner and the Board.

### **Local**

There are no local regulations pertaining to agricultural resources.

## **■ Project Impact Evaluation**

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on agriculture/forestry resources if it would do any of the following:

- 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 nonagricultural use
- Conflict with existing zoning for agricultural use or with a Williamson Act contract
- 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 nonforest use
- Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use

### **Analytic Method**

The following analysis reviews potential impacts to agricultural resources within the City of Adelanto.

### Effects Not Found to Be Significant

Threshold	Would the project 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 nonagricultural use?
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The City of Adelanto is urbanized and does not contain areas classified as Prime, Unique, or Farmland of Statewide Importance. Therefore, there would be *no impact*.

Threshold	Would the project conflict with existing zoning for agricultural use or with a Williamson Act contract?
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The City of Adelanto is urbanized and does not contain existing agricultural use or Williamson Act contract lands. Therefore, there would be *no impact*.

Threshold	Would the project 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))?
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The City of Adelanto is urbanized and does not contain areas classified as timberland, zoned as timberland, or considered forested with timber. Therefore, implementation of the Regional Reduction Plan in the City of Adelanto would not result in impacts to timberlands, or conflict with existing forest land zoning. There would be *no impact*.

Threshold	Would the project result in the loss of forest land or conversion of forest land to nonforest use?
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The City of Adelanto is urbanized and does not contain forest land. Therefore, implementation of the Regional Reduction Plan in the City of Adelanto would not result in impacts or conversion of forest land. There would be *no impact*.

Threshold	Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use?
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For the reasons described above, no other changes are anticipated that would result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use. There would be *no impact*.

### ■ Cumulative Impacts

Implementation of the Regional Reduction Plan in Adelanto would not result in any impacts on agricultural or forest lands at the project level. Therefore, impacts would not be cumulatively considerable, and there would be *no cumulative impact*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

### 4.1.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b), and the Mojave Desert Air Quality Attainment Plan (1991) and updates (2008). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing air quality were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

#### ■ Environmental Setting

The portion of the proposed project under jurisdiction of the City Adelanto is located within the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain 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 prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in southern California by differential heating 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 in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 feet). The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriel by the Cajon Pass (4,200 feet). The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley) whose primary channel is the San Gorgonio Pass (2,300 feet) between the San Bernardino and San Jacinto Mountains.

The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, indicating that at least 3 months have maximum average temperatures over 100.4°F. During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The MDAB averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation).

#### **Air Pollutants of Concern**

##### **Criteria Air Pollutants**

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable

particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. VOC and NO<sub>x</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and nitrogen dioxide (NO<sub>2</sub>) are the principal secondary pollutants.

Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects. Other pollutants, such as carbon dioxide (CO<sub>2</sub>), a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming (see Section 4.1.7 [Greenhouse Gas Emissions]).

**Carbon monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005).

**Volatile organic compounds (VOC)** are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. VOCs are synonymous with reactive organic gases. Other sources of VOC include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOC, but rather by reactions of VOC to form secondary pollutants such as O<sub>3</sub> (SCAQMD 2005).

**Nitrogen oxides (NO<sub>x</sub>)** serve as integral participants in the process of photochemical smog production. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO<sub>2</sub> is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO<sub>x</sub> acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens (SCAQMD 2005).

NO<sub>2</sub> is a by-product of fuel combustion. The principal form of NO<sub>2</sub> produced by combustion is NO, but NO reacts with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO<sub>2</sub> is only potentially irritating. There is some indication of a relationship between NO<sub>2</sub> and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 part per million (ppm). NO<sub>2</sub> absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO<sub>2</sub> also contributes to the formation of PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub> (SCAQMD 2005).

**Sulfur dioxide (SO<sub>2</sub>)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO<sub>2</sub>. At sufficiently high concentrations, SO<sub>2</sub> may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO<sub>2</sub> may do greater harm by injuring lung tissue. A primary source of SO<sub>2</sub> emissions is high-sulfur-content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO<sub>2</sub> (SCAQMD 2005).

**Particulate matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized. Inhalable coarse particles, or  $PM_{10}$ , include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or  $PM_{2.5}$ , have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading. Both  $PM_{10}$  and  $PM_{2.5}$  may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems (SCAQMD 2005). Diesel particulates are classified by the California Air Resources Board (ARB) as a carcinogen.

Fugitive dust primarily poses two public health and safety concerns. The first concern is that of respiratory problems attributable to the particulates suspended in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive (much like sandblasting). Finally, fugitive dust can result in a nuisance factor due to the soiling of proximate structures and vehicles (SCAQMD 2005).

**Ozone ( $O_3$ )**, or smog, is one of a number of substances called photochemical oxidants that are formed when VOC and  $NO_x$  (both by-products of the internal combustion engine) react with sunlight.  $O_3$  poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally,  $O_3$  has been tied to crop damage, typically in the form of stunted growth and premature death.  $O_3$  can also be a corrosive, resulting in property damage such as the degradation of rubber products (SCAQMD 2005).

### **Toxic Air Contaminants**

The public's exposure to toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to federal Clean Air Act (CAA) Section 112, subsection (b) (42 United States Code [USC] Section 7412(b)), is a TAC. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through the California ARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for California ARB to designate substances as TACs. Once a TAC is identified, California ARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. California ARB has, to

date, established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics “Hot Spot” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

Since the last update to the TAC list in December 1999, California ARB has designated 244 compounds as TACs (California ARB 1999). Additionally, the California ARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, the California ARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in the diesel exhaust were considered as TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

### **Existing Ambient Air Quality**

The MDAQMD collects data at six air quality monitoring stations. The nearest monitoring station is the Victorville monitoring station (AQS #060710306) at the MDAQMD offices. Air Quality data is available for 2006 through 2011. The pollutants measured at station include NO<sub>2</sub>, SO<sub>2</sub>, CO, O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The air quality data monitored, including federal and state air quality standards for 2007 through 2011 are presented in Table 4.1.3-1 (Ambient Air Quality Monitoring at Victorville Station). All data is from the Victorville station. The data show recurring violations of both the state and federal O<sub>3</sub> standards. The data also indicate that the area regularly exceeds the state and federal PM<sub>10</sub> standards. The CO, SO<sub>2</sub>, and NO<sub>2</sub> standards have not been violated in the last 5 years at the stations.

## **■ Regulatory Framework**

### **Federal**

#### **U.S. Environmental Protection Agency and the Federal Clean Air Act**

The federal CAA of 1970 and the CAA Amendments of 1971 required the USEPA to establish National Ambient Air Quality Standards (NAAQS), with States retaining the option to adopt more stringent standards or to include other specific pollutants. These NAAQS standards are the levels of air quality considered safe, along with an adequate margin of safety to protect the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air

pollutant concentrations considerably above these minimum standards before adverse effects are observed.

<b>Table 4.1.3-1 Ambient Air Quality Monitoring at Victorville Station</b>					
<b>Pollutant/Standard</b>	<b>Number of Days Air Quality Standards Were Exceeded per Year and Maximum Level of Concentrations in Each Year</b>				
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Ozone (O<sub>3</sub>)</b>					
State 1-Hour ≥ 0.09 ppm	7	16	8	6	2
State 8-Hour ≥ 0.07 ppm	27	30	53	35	13
Federal 8-Hour ≥ 0.075 ppm	47	58	23	19	5
Maximum 1-Hour Average Concentration (ppm)	0.107	0.109	0.111	0.111	0.098
Maximum 8-Hour Average Concentration (ppm)	0.090	0.098	0.097	0.092	0.085
<b>Carbon Monoxide (CO)</b>					
State/Federal 8-Hour > 9.0 ppm	0	0	0	0	0
Max. 8-Hour Average Concentration (ppm)	1.61	1.04	1.14	5.17	1.51
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>					
State 1-Hour ≥ 0.18 ppm <sup>a</sup>	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.071	0.074	0.064	0.137	0.075
<b>Sulfur Dioxide(SO<sub>2</sub>)</b>					
State 24-Hour ≥ 0.04 ppm	0	0	0	0	0
Federal-24 Hour ≥ 0.14 ppm	0	0	0	0	0
Maximum 24-Hour Average Concentration (ppm)	0.005	0.002	0.005	0.007	0.007
<b>Suspended Particulates (PM<sub>10</sub>)<sup>b</sup></b>					
State 24-Hour > 50 µg/m <sup>3</sup>	4	2	6	0	0
Federal-24 Hour > 150 µg/m <sup>3</sup>	1	2	1	0	0
Maximum 24-Hour Average Concentration (µg/m <sup>3</sup> )	358	285.5	307.2	49	110.2
<b>Fine Particulates (PM<sub>2.5</sub>)<sup>b</sup></b>					
Federal-24 Hour ≥ 35 µg/m <sup>3</sup>	0	0	0	0	0
Maximum 24-Hour Average Concentration (µg/m <sup>3</sup> )	28.0	17.0	20.0	18.0	15.0

SOURCE: California ARB Ambient Air Quality Monitoring Data (obtained February 2013).  
ppm = parts per million; µg/m<sup>3</sup>= micrograms per meter cubed  
a. California ARB updated the state nitrogen dioxide standard in 2007 from 0.25 ppm to 0.18 ppm.

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments dictate that states containing areas violating the NAAQS must revise their SIPs to include extra control measures to reduce air pollution. California’s SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans

and rules and regulations of the various agencies with jurisdiction over the state’s air basins. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

**State**

**California Air Resources Board**

The California ARB, a part of Cal/EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, California ARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards), compiles emission inventories, develops suggested control measures and provides oversight of local programs. California ARB also establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints and barbecue lighter fluid) and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. California ARB has primary responsibility for the development of California’s SIP and works closely with the federal government and the local air districts.

Table 4.1.3-2 (State and Federal Ambient Air Quality Standards) shows the California Ambient Air Quality Standards and NAAQS for each of the criteria pollutants.

<b>Table 4.1.3-2 State and Federal Ambient Air Quality Standards</b>				
<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>Federal Primary Standard</i>	<i>Major Sources</i>
Ozone (O <sub>3</sub> ) <sup>a</sup>	1 hour	0.09 ppm	—	Internal combustion engines, coatings, and solvents
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines
	8 hours	9 ppm	9 ppm	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>b</sup>	Annual Average	0.030 ppm	0.053 ppm	Internal combustion engines and industrial processes
	1 hour	0.18 ppm	—	
Sulfur Dioxide	Annual Average	—	0.03 ppm	Internal combustion engines, chemical plants, sulfur recovery, and metal processing
	1 hour	0.25 ppm	—	
	24-hours	0.04 ppm	0.14 ppm	
Suspended Particulates (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	—	Dust from agricultural and construction, combustion, natural activities
	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	
Fine Particulates (PM <sub>2.5</sub> ) <sup>c</sup>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	Primarily from Internal combustion engines
	24 hours	—	35 µg/m <sup>3</sup>	
Lead (Pb)	Monthly	1.5 µg/m <sup>3</sup>	—	Lead smelters and lead battery manufacturing & recycling
	Quarterly	—	1.5 µg/m <sup>3</sup>	
Sulfates (SO <sub>4</sub> )	24 hours	25 µg/m <sup>3</sup>	—	Industrial processes

SOURCE: California ARB (2012).

ppm = parts per million; µg/m<sup>3</sup> = micrograms per meter cubed

a. USEPA recently updated the 8-hour O<sub>3</sub> standard from 0.8 ppm to 0.075 ppm.

b. California ARB updated the state NO<sub>2</sub> standard in 2007 from 0.25 ppm to 0.18 ppm.

c. USEPA recently updated the 24-hour PM<sub>2.5</sub> standard from 65 µg/m<sup>3</sup> to 35 µg/m<sup>3</sup>.

## ■ Regional

### ***Southern California Association of Governments (SCAG)***

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan and Guide (RCPG) provide growth forecasts that are used in the development of air quality related land use and transportation control strategies by the MDAQMD.

### **Regional Comprehensive Plan**

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.
- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots

- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to TACs, particulates (PM<sub>10</sub>, PM<sub>2.5</sub>, ultrafine), and CO

### **SCAG Compass Growth Visioning**

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

### **Mojave Desert Air Quality Management District**

The MDAQMD is responsible for monitoring air quality and planning, implementing and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. Programs developed include air quality rules and regulations that regulate stationary source emissions including area and point sources and certain mobile source emissions. The MDAQMD is also responsible for establishing permitting requirements and issuing permits for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emissions increases. The MDAQMD enforces air quality rules and regulations through a variety of means including permitting, inspections, education and training programs and fines.

In 2009, the MDAQMD adopted the CEQA and Federal Conformity Guidelines. These guidelines provide a framework for the district to monitor development to ensure they do not cause or contribute to any new violation of any air quality standard; increase the frequency or severity of any existing violation of any air quality standard; or delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

Under the provisions of the federal and California CAAs, air quality management districts, with air basins not in attainment of the air quality standards, are required to prepare a plan that establish an area-specific program to control existing and proposed sources of air emissions so that the air quality standards may be attained by an applicable target date.

Table 4.1.3-3 (Attainment Status of MDAB) shows the attainment status for criteria air pollutants in the MDAB. As shown, the MDAQMD is a designated nonattainment basin for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. In 1991, the San Bernardino County Air Pollution Control District (APCD)<sup>3</sup> prepared the Air Quality Attainment Plan (AQAP) for O<sub>3</sub>. This plan established programs and control strategies to achieve the O<sub>3</sub> standards and to maintain attainment of the other criteria pollutants. Measures in the 1991 AQAP include an updated permitting program for stationary pollution sources, reasonable control technology for all existing and future sources, provisions to develop area and indirect control programs such as land use and transportation measures and public education programs. In 1993 the APCD was separated from the County under AB 2522 and an autonomous agency—the MDAQMD—was created that encompassed the High Desert region of San Bernardino County.

<i>Pollutant</i>	<i>State</i>	<i>Federal</i>
Ozone—1-hour	Nonattainment	Nonattainment
Ozone—8-hour	Nonattainment	Nonattainment
Carbon Dioxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment	Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Suspended Particulates (PM <sub>10</sub> )	Nonattainment	Nonattainment
Fine Particulates (PM <sub>2.5</sub> )	Nonattainment	Attainment
Lead	Attainment	Attainment
Sulfates (SO <sub>4</sub> )	Attainment	Unclassified

SOURCE: California ARB (2012).

In 1994, the USEPA designated most of the Mojave Desert as nonattainment for PM<sub>10</sub> based on violations of standards between 1989 and 1991. The MDAQMD prepared the Mojave Desert Planning Area (MDPA) federal PM<sub>10</sub> Attainment Plan in 1995 to provide dust control programs to meet federal PM<sub>10</sub> standards by the year 2000. The MDPA covers only the southwestern portions of the Mojave Desert (Victor Valley area) because most of the controllable sources and receptors of PM<sub>10</sub> and recording instrumentation are located in the Victor Valley. The plan outlines a program for implementation and enforcement of dust control measures. These measures are generally reflected through MDAQMD Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust Control). The federal standard for

<sup>3</sup> The San Bernardino County Air Pollution Control District was a precursor Agency to the MDAQMD which had jurisdiction over the desert portions of San Bernardino County from February 1977 through the formation of the MDAQMD.

PM<sub>10</sub> has been met within the area for the past 8 years and a change of status to attainment is currently being evaluated.

The MDAQMD has adopted attainment plans for a variety of nonattainment pollutants. Table 4.1.3-4 (MDAQMD Attainment Plans) lists the attainment plans applicable to the project area.

<b>Table 4.1.3-4 MDAQMD Attainment Plans</b>					
<i>Name of Plan</i>	<i>Date of Adoption</i>	<i>Standards Targeted</i>	<i>Applicable Area</i>	<i>Pollutants Targeted</i>	<i>Attainment Date<sup>a</sup></i>
1991 Air Quality Attainment Plan	8/26/91	State 1-hour O <sub>3</sub>	San Bernardino County portion	NO <sub>x</sub> and VOC	1994
Further Progress Rate-of-Progress Plan	10/26/94	Federal 1-hour O <sub>3</sub>	Southeast Desert Modified AQMA	NO <sub>x</sub> and VOC	2007
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	10/26/94	Federal 1-hour O <sub>3</sub>	Southeast Desert Modified AQMA	NO <sub>x</sub> and VOC	2007
Searles Valley PM <sub>10</sub> Plan	6/28/95	Federal daily and annual PM <sub>10</sub>	Searles Valley Planning Area	PM <sub>10</sub>	1994
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	7/31/95	Federal daily and annual PM <sub>10</sub>	Mojave Desert Planning Area	PM <sub>10</sub>	2000
Triennial Revision to the 1991 Air Quality Attainment Plan	1/22/96	State 1-hour O <sub>3</sub>	Entire District	NO <sub>x</sub> and VOC	2005
Attainment Demonstration, Maintenance Plan, and Redesignation Request for the Trona Portion of the Searles Valley PM <sub>10</sub> Nonattainment Area	3/25/96	Federal daily and annual PM <sub>10</sub>	Searles Valley Planning Area	PM <sub>10</sub>	N/A
2004 Ozone Attainment Plan (State and Federal)	4/26/04	Federal 1-hour O <sub>3</sub>	Entire District	NO <sub>x</sub> and VOC	2007
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	6/9/08	Federal 8-hour O <sub>3</sub> (84 ppb)	Western Mojave Desert Nonattainment Area (MDAQMD portions)	NO <sub>x</sub> and VOC	2021

SOURCE: MDAQMD (2011).

ppb = parts per billion

a. A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table 4.1.3-3 (Attainment Status of MDAB).

## Local

### Adelanto General Plan

The Adelanto General Plan contains policies that would reduce air pollutant emissions and reduce exposure of air pollution within the Circulation Element (CI), the Land Use Element (LU), the Open Space Element (OS), and the Conservation Element (CN). These policies<sup>4</sup> include the following:

- Policy LU 1.1** Promote low per capita water use through the use of low water consumptive plant materials/ desert plants (xeriscape).
- Policy LU 1.3** Promote the addition of wastewater recycling facilities and the reuse of treated water for appropriate purposes.
- Policy LU 3.2** Offer a wide range of development opportunities for investors, developers, residents and businesses. The City encourages the development of mixed use projects, providing a balance of homes, jobs, and services.
- Policy RE 1.2** Encourage higher density residential developments in areas of Adelanto that are located around commercial centers, and major urban nodes. Mixed Use projects are considered ideal, in that jobs, homes, and services are in close proximity.
- Policy CLU 3.4** Where feasible, pedestrian and bike paths should connect commercial development with adjacent residential areas.
- Policy MI 3.2** Where feasible, pedestrian and bike paths should connect MI development to residential neighborhoods.
- Policy MI 4.1** Encourage the incorporation of bus stops, van pool programs, or other transit options as a condition of development.
- Policy HE 3** Encourage development of residential uses in strategic- proximity to employment centers and transportation routes. Implement the following criteria for evaluation: affordable housing; adequate public services and facilities; adjacent land uses which are compatible with residential development; and convenient access to: public transportation and freeways, employment centers, recreational facilities (passive and active), schools, and neighborhood commercial areas.
- Policy CE 6** Investigate all options for the implementation of a high speed rail system from the Orange, Riverside and San Bernardino County areas to a new major airport.
- Policy CE 7** Begin investigating the applicability of a local/subregional transit system and necessary rights of way needed in Adelanto and the surrounding area.
- Policy BIO 1.2** The City will encourage the use of native vegetation and drought tolerant trees to enhance the environment within the City
- Policy NR 1.6** Conservation techniques shall be required for proposed development (both domestic and industrial) to minimize consumption levels of renewable and non-renewable natural resources including water resources.

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<sup>4</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- Policy AQ 1.1** The City shall continue to work with the Mojave Desert Air Quality Management District and any other agencies in order to enforce and implement regional air quality plans.
- Policy AQ 1.2** The City will require all new developments, as defined by State requirements and implementing ordinances to institute any required Transportation Systems Management Plan (TSM).
- Policy AQ 1.3** The City will continue to review all new developments to determine the potential air quality impacts, as well as any other environmental analysis deemed appropriate by the City for projects not conforming to this General Plan.
- Policy AQ 1.4** The City will continue to work with the California State Air Resources Board and the Air Quality Management District to improve the implementation of the California Clean Air Act.
- Policy AQ 1.5** The City will organize land uses wherever possible to create a desirable jobs/housing balance for the region.
- Policy AQ 1.7** The City will consider dedicated truck routing in circulation plans and delivery scheduling for new and existing industries which are separated from the peak traffic hours.
- Policy AQ 1.8** The City will consider all feasible means of reducing vehicle miles traveled by City employees and residents.
- Policy AQ 1.9** The City will require new developments to consider pedestrian access in project plan designs.
- Policy AQ 1.10** The City encourages mixed-use developments that provide shopping and employment opportunities in close proximity to residential areas.
- Policy AQ 1.11** The City encourages the use of support facilities in office complexes and commercial areas to promote pedestrian commuting.
- Policy AQ 1.12** The City will require projects to consider land use alternatives that include mixed uses and pedestrian access improvements.
- Policy AQ 1.13** The City will monitor approved projects to determine conformance to the Mojave Desert Air Quality Attainment Plan.
- Policy WQ 1.2** The City will study the use of alternative water resources such as reclaimed water for irrigation of parks, recreational, industrial, residential, and other urban uses within the City.
- Policy WQ 1.5** The City will require that all new development utilize water conservation techniques to conserve water resources, such as the use of low-flow irrigation and plumbing systems in new and existing development.
- Water Goals** Achieve conservation, reclamation, reuse, and other refinements in water management practices as an essential part of all water supply programs, whether in, urban, rural, or agricultural sectors.

## ■ Project Impact Evaluation

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on air quality if it would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality management plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

The MDAQMD has developed CEQA air pollutant thresholds for projects within the MDAB. The MDAQMD thresholds of significance for air quality are shown in Table 4.1.3-5 (MDAQMD Thresholds of Significance).

<b>Table 4.1.3-5 MDAQMD Thresholds of Significance</b>	
<i>Pollutant</i>	<i>Daily Threshold (lb/day)</i>
Volatile Organic Compounds (VOC; an ozone precursor)	137
Nitrogen Oxides (both NO <sub>2</sub> and NO <sub>x</sub> as an ozone precursor)	137
Sulfur Oxides (SO <sub>x</sub> , both SO <sub>2</sub> and SO <sub>4</sub> )	137
Carbon Monoxide (CO)	548
Suspended Particulates (PM <sub>10</sub> )	82
Fine Particulates (PM <sub>2.5</sub> )	82

SOURCE: MDAQMD (2011).

In addition, MDAQMD’s health related thresholds associated with TACs are as follows:

- Emission of (or exposure to) carcinogenic toxic air contaminants that increase maximum cancer risk by 10 in one million
- Emission of (or exposure to) toxic air contaminants that increase the maximum hazard quotient by 1

### **Analytic Method**

The impact analysis for the Regional Reduction Plan is based on the air quality emissions analysis in the Adelanto General Plan EIR, and predicted air pollutant reductions that would be expected from implementation of the Regional Reduction Plan.

## Effects Not Found to Be Significant

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?
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Table 4.1.3-4 lists the applicable air quality management plans for the region that are designed to meet the state and federal Clean Air Act planning requirements with a focus on state and federal O<sub>3</sub> and federal PM<sub>10</sub> standards. The plans incorporate control strategies, including transportation conformity budgets that show vehicle miles travelled (VMT) emissions offsets following the recent changes in U.S. USEPA requirements.

In addition to the statewide measures to reduce VMT and vehicular emissions, the Proposed Project (Regional Reduction Plan) would implement measures within Adelanto that are designed to increase energy efficiency and reduce emissions from construction and landscaping equipment, reduce emissions by the installation of energy efficiency features and solar, and by the reduction in VMT through the sustainable communities strategy. While these reduction strategies were formulated to reduce greenhouse gases, they also act to improve overall air quality by reducing emissions of criteria pollutants.

The City will implement transportation measures to improve air quality. These include VMT reduction strategies such as Regional Reduction Plan reduction On-Road-1.2 (Transit Improvements), On-Road-1.6 (Traffic Calming Measures), and On-Road-1.9 (Trip Reduction Ordinance). Other reduction measures that relate to reduced vehicle emissions include a Transportation Demand Management (TDM) program that requires large employers and offers incentives to smaller employers to offer programs to employees that reduce employee commuter trips through ride-share and transit programs, telecommuting programs, and nonmotorized commutes to work.

Additionally, the Regional Reduction Plan includes pedestrian and bicycle infrastructure planning for bikeways and pedestrian paths to be build that connect various land uses. A key benefit to the implementation of pedestrian and bicycle infrastructure within the City will be a reduction in traffic and improved air quality.

The City will also implement measures to improve air quality from off-road diesel equipment. These include emissions reduction strategies, such as Regional Reduction Plan reductions Off-Road-1 (Construction Equipment) and Off-Road-3 (Landscaping Equipment within the City of Adelanto). These measures would reduce the use of gasoline-powered construction and landscaping equipment, and reduce the time the construction equipment is allowed to idle beyond existing California ARB idling regulations. Implementation of these strategies would reduce O<sub>3</sub> and particulate matter emissions from operation of diesel engines.

In addition, energy efficiency measures to reduce electricity use and renewable energy generation will reduce both GHG emissions and air pollutants at power plants generating electricity in the region. Energy efficiency measures in the Regional Reduction Plan will also reduce natural gas combustion at residential, commercial and industrial land uses within the City, which will reduce criteria air pollution locally, including O<sub>3</sub> precursors. Through the reduction in air quality pollutant emissions, the implementation of the Regional Reduction Plan will further the goals of the air quality management plan for the MDAB. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
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Construction activities, such as building energy retrofits and grading or excavation activities, if required for installation of energy-generating structures, would result in temporary, short-term emissions of air pollutants. The primary source of NO<sub>x</sub>, CO, and SO<sub>x</sub> emissions is the operation of construction equipment. The primary sources of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions include activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. Because information regarding specific facilities and building details required to implement the Regional Reduction Plan reduction measures is not available, short-term construction emissions from these activities cannot be quantified. However, these temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits, and renewable energy project that are part of the reduction measures in the Regional Reduction Plan that would result in an overall reduction in both GHG and criteria air pollutant emissions. Additionally, as described in the previous sections, the Regional Reduction Plan reduction strategies Off-Road-1 (Construction Equipment) would reduce criteria pollutant emissions during construction, including O<sub>3</sub> and diesel particulate matter emissions.

While short-term construction emissions are not quantifiable at this time, long-term emissions of criteria pollutants from operation of the energy efficiency measures, renewable energy generation, methane capture systems, water conservation measures, recycled water measure, solid waste diversion programs, and the various transportation measures are better understood at a regional level. This is because of the level of commitment that the City of Adelanto has chosen in implementing the reduction measures in the Regional Reduction Plan, which would reduce criteria pollutants as well as GHG emissions. Table 4.1.3-6 (City of Adelanto Regional Emissions [lb/day]) compares the criteria pollutant emissions predicted in the General Plan EIR with the predicted reductions in those emissions through implementation of the Regional Reduction Plan.

<b>Table 4.1.3-6 City of Adelanto Regional Emissions (lb/day)</b>						
<i>Emission Sources</i>	<i>VOC</i>	<i>NO<sub>x</sub></i>	<i>CO</i>	<i>SO<sub>x</sub><sup>a</sup></i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>
<b>Existing Land Use Emissions</b>						
Transportation	2,256	3,606	13,312	—	513	—
Natural Gas	10	198	40	—	>0	—
<b>Total Existing Emissions<sup>b</sup></b>	<b>2,266</b>	<b>3,804</b>	<b>13,352</b>	—	<b>533</b>	—
<b>Adelanto General Plan Buildout Emissions</b>						
Transportation	41,014	65,560	242,043	—	9,321	—
Natural Gas	190	3,591	718	—	7	—
<b>Total General Plan Emissions<sup>b</sup></b>	<b>41,204</b>	<b>69,151</b>	<b>242,761</b>	—	<b>9,328</b>	—

**Table 4.1.3-6 City of Adelanto Regional Emissions (lb/day)**

Emission Sources	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub> <sup>a</sup>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Changes in Emissions with the Regional Reduction Plan<sup>c</sup></b>						
Transportation	-11,402	-18,266	-67,288	—	-2,591	—
Natural Gas	-10	-194	-39	—	0	—
GHG Performance Standard <sup>d</sup>	-3,218	-5,400	-18,957	—	-728	—
<b>Total Changes to Emissions</b>	<b>-14,630</b>	<b>-23,819</b>	<b>-86,284</b>	<b>—</b>	<b>-3,320</b>	<b>—</b>
<b>Emission Comparison</b>						
Net General Plan Emissions with implementation of the Regional Reduction Plan	26,574	45,332	156,477	0	6,008	0
Estimated Regional Reduction Plan Percent Reduction in Air Pollution	-36%	-34%	-36%	—	-36%	—
<b>MDAQMD Threshold</b>	<b>137</b>	<b>137</b>	<b>548</b>	<b>137</b>	<b>82</b>	<b>82</b>
General Plan with Regional Reduction Plan Reductions Significant?	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	No	<b>Yes</b>	No
Regional Reduction Plan Significant?	No	No	No	No	No	No

SOURCE: City of Adelanto, *Air Quality Analysis Report for the General Plan* (1994).

lb/day = pounds per day

- a. Insufficient information available for SO<sub>x</sub> and PM<sub>2.5</sub> emissions in the General Plan.
- b. Excludes emissions from stationary sources.
- c. Regional Reduction Plan reductions based on percentage reductions by sector (energy sector = natural gas, etc.).
- d. GHG Performance Standard is not sector specific. Estimated reductions based upon expected reductions of totals for new development.

The Proposed Project (Regional Reduction Plan) will reduce anticipated criteria air pollutant emissions resulting from buildout of the General Plan, but the net emissions from buildout of the General Plan are still over the MDAQMD Thresholds. This significant impact was addressed in General Plan Update EIR. Impacts from the Regional Reduction Plan reduce criteria pollutants and benefit air quality in Adelanto. Therefore, the impact would be **less than significant**. No mitigation is required.

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?
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As shown in Table 4.1.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Adelanto. On-Road Transportation-1 (Sustainable Communities Strategy [SCS]) in the Regional Reduction Plan supports transit-oriented development and increased public transportation availability. Within the City of Adelanto, public transportation service consists of buses that are operated by Victor Valley Transit Authority (VVTA). There are no commuter rail services within the City. The Amtrak Southwest Chief passenger train regularly passes through Adelanto; however, the closest station is located in the City of Victorville. The VVTA bus fleet runs on compressed natural gas (CNG), which reduces particulate matter emissions by more than 80 percent. Therefore, the project would not expose sensitive receptors in the City to substantial pollutant concentrations. This impact would be **less than significant**. No mitigation is required.

Threshold	Would the project create objectionable odors affecting a substantial number of people?
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Implementation of the Regional Reduction Plan will not create objectionable odors. Reduction measures in the Regional Reduction Plan selected by the City of Adelanto related to methane collection systems will reduce existing odors within the City, specifically within agricultural land uses by capturing and containing methane that currently escapes into the air as fugitive emissions and creates odors in the vicinity of these types of agricultural land uses. Therefore, this impact would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

Threshold	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?
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As shown in Table 4.1.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Adelanto. Regionally, additional air pollutant reductions will take place at power plants due to reductions in electrical demand and increases in renewable energy generation. Therefore, the Regional Reduction Plan will result in a cumulative net reduction in criteria air pollutants. However, this environmental benefit does not reduce air pollutants enough to cause buildout of the General Plan to be less than cumulatively considerable. Therefore, the net emissions resulting from the General Plan with implementation of the Regional Reduction Plan reductions is still a cumulatively considerable contribution to criteria air pollutants for which the MDAB is in nonattainment (O<sub>3</sub>, suspended particulates, and fine particulates). This significant impact of General Plan was identified in the General Plan EIR.

However, because implementation of the Regional Reduction Plan has a net reduction in air pollution, this impact would be *less than significant*. No mitigation is required.

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## 4.1.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a) and associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing biological resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

Physical natural resources that are within the planning area include the Shadow Mountains in the northwest, the Mojave River to the east, natural drainage courses (including the Fremont Wash), and various plant and animal habitat areas. The following discussion outlines the primary resources within the planning area.

#### ***Riparian Areas (Mojave River Corridor)***

The Mojave River forms the eastern boundary of the Adelanto planning area and is arguably the most significant and sensitive resource in the planning area, as well as the entire high desert region. Rare stretches of year-round surface water flow are found along this corridor of the planning area. Future development of the river corridor must be carefully considered in order to assure the preservation of the area's sensitive riparian habitat and water resources.

#### ***Open Space Areas***

Natural open space areas are a major component of the long term survival of native plant and animal species. In addition, they serve as a critical link between humans and the natural environment. While most of the planning area is currently undeveloped, many of these sensitive resources and open spaces will be lost if not identified and preserved. These areas may serve as wildlife preserves, or as passive recreational areas. Other less fragile open space areas may provide unstructured recreational opportunities as well. The Recreation Element identifies strategies for the development of active parks within the City.

Alluvial fans and floodplains support distinctive scrub vegetation within the planning area containing an assortment of plant materials characteristic of both Mojave creosote bush scrub, Mojave wash scrub, and Joshua tree woodland communities. Such areas are known habitat for a variety of wildlife, including the desert tortoise and Mojave ground squirrel. Mojave riparian forest habitat is found along the Mojave River, as well as, in some of the natural drainage courses throughout the planning area. A variety of animal species may use the stream courses as a movement corridor. The Mojave River has cut a deep canyon into the hills to the west of the river course, forming a steep bluff. The face of the bluff affords nesting habitat for a variety of small birds and raptors.

The City of Adelanto recognizes that certain plant and animal species, and sometimes whole communities of these may be considered to be sensitive for one or more reasons related to rarity, limited

habitat and pending threats. In some instances, the threat to such species or their habitats warrants official state and/or federal endangered status. Table 4.1.4-1 (Sensitive Biological Resources in the Adelanto Planning Area Vicinity) lists the sensitive biological resources within the Adelanto General Plan planning area.

**Table 4.1.4-1 Sensitive Biological Resources in the Adelanto Planning Area Vicinity**

Common Name	Scientific Name	USFWS	CDFG	CNPS
Mojave buckwheat	<i>Chorizanthe spinosa</i>	3C	—	4
Mojave monkeyflower	<i>Mimulus mohavensis</i>	—	—	1B
Victorville shoulderband	<i>Helminthoglypta mohaveana</i>	C2	—	—
Mojave tui chub	<i>Gila bicolor mohavensis</i>	E	E	—
Red-legged frog	<i>Rana aurora draytoni</i>	C2	—	—
Southwestern pond tunic	<i>Clemmys marmorata pallida</i>	C2	—	—
Desert tortoise	<i>Gopherus agassizi</i>	E	T	—
San Diego horned lizard	<i>Phrynosoma coronatum blainvillii</i>	C2	CSC	—
Willow flycatcher	<i>Empidonax traillii</i>	FSS	CSC1	—
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	C2	E	—
Yellow-breasted chat	<i>Icteria virens</i>	—	CSC2	—
Summer tanager	<i>Piranga rubra</i>	—	CSC2	—
Bendire's thrasher	<i>Toxostoma bendirei</i>	—	CSC3	—
Le Conte's thrasher	<i>Toxostoma lecontei</i>	—	CSC3	—
Least Bell's vireo	<i>Vireo bellii pusillus</i>	E	E	—
Cooper's hawk	<i>Accipiter cooperii</i>	—	CSC3	—
Prairie falcon	<i>Falco mexicanus</i>	—	CSC3	—
Swainson's hawk	<i>Buteo swainsoni</i>	C2	T	—
Golden eagle	<i>Aquila chrysaetos</i>	Fp	Fp, CSC3	—
Mojave ground squirrel	<i>Spermophilus mohavensis</i>	C2	T	—
Mojave vole		—	—	—
Streamcourses		—	—	—
Mojave riparian forest		—	—	
Mojave creosote bush scrub		—	—	—
Mojave wash scrub		—	—	—

SOURCE: City of Adelanto, *Adelanto General Plan Update* (May 1994).

E = endangered; T = threatened; CSC = special concern; FSS = federal sensitive species; Fp = federally protected

## Plant Life

Plant life in the planning area is abundant and diverse. During the spring months, the desert provides a colorful display of annual flowers. In addition, there are many plant habitats, several of which are very sensitive, that exist within the planning area. The major plant communities (habitats) are described below:

**Mojave creosote bush scrub**, dominated by creosote (*Larrea tridentata*) and burro-weed (*Ambrosia dumosa*), is found in areas of well-drained secondary soils with very low available water holding capacity on slopes, fans, and valleys. Growth usually occurs during spring if rainfall is sufficient.

**Mojave wash scrub** is a low, shrubby, open community with a scattered to locally dense overstory of small-leaved trees. Characteristic species of Mojave wash scrub include catclaw (*Acacia greggii*), desert willow (*Chilopsis linearis*), and many-fruited saltbush (*Atriplex polycarpa*). This community is found in sandy washes, arroyos, and canyons of intermittent streams throughout the Mojave Desert region.

**Mojave riparian forest** is found along larger desert rivers such as the Mojave, where the vegetation has not been cleared for irrigated agriculture or dehydrated by upstream diversions. Mojave riparian forest is a relatively open, broad leaved, winter-deciduous streamside forest dominated by cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), and red willow (*S. laevigata*). A dense understory of rabbitbrush (*Chrysothamnus nauseosus*), Torrey's saltbush (*Atriplex torreyi*), and other shrubby species grows below the open canopy. Riparian habitats, never common in dry Southern California, are becoming increasingly rare due to the pressures of development. As a result, riparian areas, and especially the waters that support them, are vigorously protected by California Fish and Game Code Section 1600 and Clean Water Act Section 404.

**Mojave monkeyflower** (*Mimulus mohavensis*) is a reddish-purple annual, blooms from April through June, and grows in sandy and gravelly areas at 2,000 to 3,000 feet. This species is found in association with creosote bush scrub, and is threatened by development and off-road vehicles. Most historic occurrences in the Barstow area have been extirpated or negatively impacted. This species is listed as a federal Category C2 (Candidate for Federal Listing) and a California Native Plant Society (CNPS) Category 1B.

**Mojave buckwheat/spineflower** (*Chorizanthe spinosa*) is a CNPS List 4 species. This species grows in dry sandy or gravelly soil, in creosote bush scrub and Joshua tree woodland habitats. Mojave Buckwheat is found at elevations between 2,500 and 3,500 feet and may be found, within the planning area.

## Animal Life

Several animal species are known to exist in the above mentioned habitat areas that typify the Adelanto planning area. The following summary is a comprehensive list of those species which are known to exist, may exist, or have been seen in the vicinity. Each is identified, including any pertinent state or federal classification relating to current status.

**Victorville shoulderband**, a gastropod known as *Helminthoglypta mohaveana*, is a Category 2 candidate for federal listing. This species has been reported on the banks of the Mojave River on the eastern edge of the planning area.

**Mojave tui chub** (*Gila bicolor mohavensis*) is both state and federally listed as endangered. This fish once reported in the Mojave River near Victorville, was reported extirpated from this site in 1980, but may occur in other sections of the river.

**Red-legged frog** (*Rana aurora draytonii*) is a Category 2 candidate for federal listing. This pond frog inhabits humid forests, woodlands, grasslands, and streamsides, and is most common in lowland and foothills. The red-legged frog has been reported in the vicinity and may be in the planning Area.

**Desert tortoise** (*Xerobates agassizii*) is listed as “Endangered” by California Department of Fish and Wildlife (CDFW), and was listed as “Threatened” by the U.S. Fish and Wildlife Service (USFWS) on August 4, 1988 on an emergency basis. The desert tortoise ranges mainly in desert scrub, sand washes, and throughout creosote bush scrub habitats. Desert tortoises have been found within the planning area, and may occur wherever appropriate habitat areas exist.

**Southwestern pond turtle** (*Clemmys marmorata pallida*), a Category 2 candidate for federal listing, is thoroughly aquatic, and inhabits ponds, marshes, rivers, streams, and irrigation ditches that typically have a rocky or muddy bottom. This turtle may inhabit some portions of the Mojave River within the subject planning area.

**San Diego coast horned lizard** (*Phrynosoma coronatum blainvillii*) is a Category 2 candidate for federal listing. The preferred habitat of the San Diego coast horned lizard is open sandy areas within the coastal sage or chaparral communities as well as in dry washes and along roads. The San Diego coast horned lizard has been reported in the planning area and its presence is likely wherever appropriate habitat exists.

**Yellow-breasted chat** (*Icteria virens*) is a CDFW Species of Special Concern, second priority. This bird is an uncommon local summer resident in dense riparian thickets of the lowlands and lower portions of foothill canyons, especially in the vicinity of lowland watercourses. The clearing of much of this habitat has caused a noticeable decline in the number of breeding birds. In addition, the brown-headed cowbird (*Molothrus*), a nest parasite that lays its eggs in other birds’ nests, has been a major contributor to this decline. In 1987, a singing male yellow-breasted chat was observed high in a *Populus fremontii* in the Mojave Narrows Regional Park, southeast of Victorville.

**Summer tanager** (*Piranga rubra*), also a CDFW Species of Special Concern, second priority, nests in mature riparian groves dominated by cottonwoods. Summer tanagers have been reported in recent years in two different areas along the Mojave River in the vicinity of the planning area. These populations are threatened by off-road vehicle use in the riverbed and adjacent riparian habitat, prolonged flooding, and removal of vegetation.

**Bendire’s thrasher** (*Toxostoma bendirei*), a CDFW Species of Special Concern, third priority, breeds primarily in Joshua Tree woodlands with scattered shrubs (creosote, etc.) and patches of grassland. In some areas, it also breeds in areas where *Opuntia* cactus is plentiful (up to 1500m). The Bendire’s Thrasher is a fairly common summer resident in the Cima Dome–Lanfair Valley area of northeastern San Bernardino County, and a very scarce summer resident in the Joshua Tree National Monument–Yucca Valley area of southwestern San Bernardino County. The total population within California is under 200 pairs.

**Le Conte's thrasher** (*Toxostoma lecontei*) is another third priority Species of Special Concern by the State of California, this bird inhabits very sparse desert scrub, especially around small washes. This species is a widespread but rare permanent resident in the western and southern San Joaquin Valley, Upper Kern River Basin, Owens Valley, Mojave Desert, and Colorado Desert. California is a major population center for this species. This shy species has been greatly affected by off-road vehicle use. The Le Conte's thrasher has been reported at various points north and northwest of Adelanto.

**Least Bell's vireo** (*Vireo bellii pusillus*) is state and federally listed as an endangered species. Least Bell's vireos require an extensive and dense riparian woodland habitat. The decline of the species is related to the widespread removal of this habitat in Southern California. Cowbird parasitism has also played a significant role in their decline. Least Bell's vireos have been reported in the vicinity of the planning area, and may occur in areas of suitable habitat.

**Willow flycatcher** (*Empidonax traillii*) is a CDFW Bird Species of Special Concern, Highest Priority (considered to be potentially endangered due to small population size and habitat loss), as well as federal (BLM and USFS) Sensitive Species. The species requires dense riparian woodlands for nesting. It has been virtually extirpated from the region by brown-headed cowbirds and habitat loss; however, migrants may still be seen in spring and fall in appropriate habitat on the site.

**Western yellow-billed cuckoo** (*Coccyzus americanus occidentalis*) is state listed as Endangered, as well as a Category 2 candidate for federal listing. This species is a very rare summer transient in the majority of Southern California. The natural nesting habitat of the western yellow-billed cuckoo is in deciduous riparian forest and woodland of a cottonwood-willow composition. A western yellow-billed cuckoo was observed in the "upper narrows" area southeast of Victorville in an extensive willow and cottonwood forest bordering the Mojave River.

**Prairie falcon** (*Falco mexicanus*) is a CDFW Species of Special Concern, third priority, was at one time a common permanent resident throughout most of California. Pesticide residues, robbing of aeries by falconers, shooting, and human activity near nest sites have all taken a toll on prairie falcon populations, resulting in a very small and vulnerable total population within California. These birds prefer open desert scrub and grasslands for foraging, and require adjacent cliffs or rocky outcroppings for nesting. An active nest site has been reported within the planning area boundaries.

**Swainson's hawk** (*Buteo swainsoni*) is a Category 2 candidate for federal listing, and Threatened in California. It is a medium-sized Buteo with relatively long, pointed wings and a long square tail. The diet of the Swainson's hawk includes the California vole (*Microtus californicus*), as well as a variety of birds and insects. These hawks require large, open grasslands with abundant prey in association with suitable nest trees. Nest sites may be found in mature riparian forest, lone trees or groves of oaks and other species in agricultural fields and mature roadside trees.

**Cooper's hawk** (*Accipiter cooperii*) is considered by CDFW to be a widespread and declining species (Species of Special Concern, third priority). Once considered a common nester throughout California, the Cooper's hawk has been much reduced in recent decades. This hawk occupies a variety of woodland and semi-open habitats, though breeding populations are generally restricted to riparian groves and mountain canyons.

**Golden eagle** (*Aquila chrysaetos*), although not listed as rare or endangered, is afforded Fully Protected status in California (California Fish and Game Code Section 3511) and receives additional protection under amendments to the Bald Eagle Protection Act (PL, 92-5351 ). It is considered sensitive by federal agencies and CDFW due to its requirements for isolated nesting sites and very large foraging areas. Golden eagles are known to have nests to the north of the Adelanto planning area, and are expected to forage over the site.

**Mojave ground squirrel** (*Spermophilus mohavensis*), state listed as Threatened and a federal Category 2 candidate for listing, is cinnamon-gray in color, with white underparts. The species lives in underground burrows, in which it spends about seven months of the year (usually August to February) in estivation. Mojave ground squirrels inhabit plant communities which are dominated by either creosote, Joshua tree, or shadscale, the fruit of the Joshua tree being its favorite food. The species suffers from piecemeal loss of habitat and resulting isolation of the populations. The Adelanto planning area is in the middle of the Mojave ground squirrel's range, and it has been reported in the areas of Oro Grande and Victorville.

**Mojave vole** (*Microtus californicus mohavensis*) a grass eating mouse found in grassy areas along the Mojave River, in the vicinities of Victorville, Oro Grande, and Helendale.

## ■ Regulatory Framework

### Federal

#### Endangered Species Act

The federal Endangered Species Act of 1973 (FESA), as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under FESA Section 9. Take, as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." FESA Section 7 requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. FESA Section 4(a) requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened."

Critical habitat consists of specific areas, both occupied and unoccupied by a federally protected species, that are essential to the conservation of a listed species and that may require special management considerations or protection. The location of a proposed project within critical habitat typically warrants a habitat assessment and, if suitable habitat is present, focused (protocol) surveys to determine presence or absence of the listed species. Any project involving a federal agency, federal monies, or a federal permit that falls within an area designated as critical habitat requires the project proponent to consult with the USFWS regarding potential impacts to the listed species and conservation measures to offset identified impacts.

Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Critical habitat receives protection under FESA Section 7

through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Federal agencies and proponents of other projects involving federal funding or permits that are proposing projects within critical habitat are required to consult with USFWS as to the impacts such projects may have on protected species, and mitigation for any such impacts. FESA Section 10 provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 (MBTA) is the domestic law that affirms and implements the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, and their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA.

### **Clean Water Act, Sections 401 and 402**

Federal Clean Water Act (CWA) Section 401(a)(1) specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include USACE Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the U.S. Environmental Protection Agency (USEPA) under CWA Section 402. NPDES permits are issued by the applicable Regional Water Quality Control Board (RWQCB).

### **Clean Water Act, Section 404**

USACE regulates discharges of dredged or fill material into waters of the United States including wetlands and nonwetland bodies of water that meet specific criteria. Pursuant to CWA Section 404, a permit is required for any filling or dredging in waters of the US. The permit review process entails an assessment of potential adverse impacts to USACE wetlands and jurisdictional waters, wherein the USACE may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the RWQCB.

## **State**

### **California Endangered Species Act**

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding. In addition, some sensitive mammals and birds are protected by the state as Fully Protected Species. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Known and recorded occurrences of sensitive species are listed on the CDFW's California Natural Diversity Data Base (CNDDDB) project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

### **California Fish and Game Code, Section 1600**

California Fish and Game Code Section 1600 requires that a project proponent notify the CDFW of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review a project and place conditions on the project as part of a Streambed Alteration Agreement. The conditions are intended to address potentially significant adverse impacts within CDFW's jurisdictional limits.

### **California Desert Native Plant Act**

The California Desert Native Plant Act lists several plant families, genera and/or species that are to receive special consideration due to their uniqueness individually and as a part of the California desert ecosystem. The affected species found in the planning area include the Joshua tree, catclaw, and members of the Agave, Cactus, and Mesquite families.

## **Regional**

### **West Mojave Plan**

The West Mojave Plan is a multiple species planning effort that encompasses 9.4 million acres in the Mojave Desert. The plan area extends from Olancho in Inyo County in the north to the San Gabriel and San Bernardino Mountains in the south, and from the Antelope Valley in the west to the Mojave National Preserve in the east. The plan focuses on the federally and state-listed desert tortoise and the state-listed Mohave ground squirrel, but also addresses 100 other special-status plant and wildlife species. Twenty-eight participating federal, state, and local agencies and jurisdictions have teamed in this planning effort. The purpose of the West Mojave Plan is to provide regional or area-wide protection of natural areas and to promote perpetuation of natural wildlife diversity while allowing compatible development and growth.

Preparation of the West Mojave Plan began in 1992 with a series of scoping meetings, which continued over a period of 10 years. The Biological Opinion to amend the BLM California Desert Conservation Area Plan was issued by the USFWS in January 2006. As of February 2013, the HCP for nonfederal lands is not yet complete; the covered species, boundaries of the conservation areas, survey requirements, funding requirements, and implementing conservation actions for each species require a more detailed description for the local governments to obtain Incidental Take Permits (ITPs) under the federal and state Endangered Species Acts. Until the Implementation Agreement is signed, the West Mojave Plan will not be in effect on lands under the jurisdiction of the City.

## Local

### City of Adelanto Municipal Code

City of Adelanto Municipal Code Section 17.57 (Biotic Resources Ordinance) contains details pertaining to locational requirements, biological resources report, and plant protection and management. The ordinance limits the impacts to native vegetation and sensitive habitat through restriction of species to be removed and review of all proposed impacts.

### Adelanto General Plan

The Adelanto General Plan includes a Conservation/Open Space Element that identifies resources that should be preserved. This element contains the following policies related to biological resources<sup>5</sup>:

- Policy BIO 1.1** The City will only allow development which minimizes the destruction of biotic resources within the City, such as the Mojave River Corridor.
- Policy BIO 1.7** All land development projects shall be reviewed for consistency with the Land Use Map, which incorporates the above-mentioned mitigations/implementation strategies. The City may consider the offer of preferential assessments on real property as an incentive for retaining open space or conservation easements to protect sensitive species and their habitats.
- Policy BIO 1.8** The City shall require the applicant for a proposed project within or potentially affecting the resources of a Riparian Corridor or the Planning Areas natural drainage channels to enter into an agreement with the California Department of Fish and Game, as applicable, pursuant to Chapter 6 of Division 2 of the Fish and Game Code.
- Policy BIO 1.9** The City shall consult with the California Department of Fish and Game on any project that could affect a species which is listed or in fact rare, threatened or endangered (CEQA Guideline Section 15380, as identified by the biological survey).
- Policy BIO 1.10** The City will only allow development which minimizes or eliminates destruction of or damage to any and all significant biotic resources, i.e., the Mojave River corridor, Fremont Wash.

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<sup>5</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

## ■ Project Impact Evaluation

### ***Thresholds of Significance***

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on biological resources if it would do any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

### ***Analytic Method***

The following analysis reviews potential impacts to biological resources within the City of Adelanto.

### ***Effects Not Found to Be Significant***

Threshold	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain habitat.

Sensitive plant and animal species that may occur within the City are discussed above under Environmental Setting. As discussed in this section, a large portion of the City is developed and does not

have high potential for containing sensitive species. However, the undeveloped areas of the City contain a variety of habitats with the potential to support sensitive species.

It is the policy of the City to evaluate the individual impacts of proposed development on special-status species and plants protected by the City's Biotic Resources Ordinance. All projects proposed on sites that include substantially undisturbed area, or sites that have protected plant or animal species, must submit a survey from a qualified biologist. This information is required to be submitted with the project application and is included with the applicable environmental document prepared for the project under CEQA.

Renewable energy projects considered for approval on vacant land under the Regional Reduction Plan would be required to provide independent CEQA review and would be required to comply with the City's project approval process, including the requirements to survey for and protect sensitive species. If sensitive species were found, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. Mitigation for impacts to sensitive species is often in the form of acquisition or restoration of habitat, on site or off site, at a ratio to the area of impacted land that would be determined by the CDFW or USFWS. For projects proposed by federal agencies, or projects that would involve federal permits or funding, and that are sited within critical habitat for a listed species, the project proponent would be required under the FESA to consult with the USFWS regarding impacts and mitigation respecting listed species.

After compliance with the requirements of the City's development process, and the California and federal endangered species acts, including requirements of the USFWS regarding critical habitat, implementation of the proposed Regional Reduction Plan would not have substantial adverse impacts on sensitive animal species. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain riparian habitat; however, the Mojave River is planned for open space use so that impacts to these habitats would be limited with compliance with the City's General Plan (City of Adelanto 1994b).

In addition, as stated previously, individual projects undergoing the City's development approval process would be required to survey for sensitive biological resources. The City requires compliance with all applicable regulations pertaining to riparian habitat. Prior to the issuance of grading permits for any project potentially affecting riparian habitat, the applicant is required to provide evidence that all necessary permits have been obtained from the CDFW (California Fish and Game Code Sections 1601–1603). If there are any impacts to riparian areas, the impacts would be required to be mitigated by the City's Biotic Resources Ordinance, and California Fish and Game Code Sections 1601–1603. The

mitigation would be approved by the City’s Building Department and CDFW. In conclusion, projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. Consequently, impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
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There are several drainages that that traverse the planning area in a northerly direction that could contain federally protected wetlands.

Implementation of the Regional Reduction Plan includes energy efficiency standards for new development, energy efficiency retrofits for existing buildings, water conservation measures, transportation measures to reduce trips and vehicle miles traveled, waste diversion programs. However, implementation of these types of reduction measures will not affect bodies of water or wetlands.

Increased renewable energy generation will also be developed during implementation of the proposed Regional Reduction Plan. However, these types of projects are not likely to affect bodies of water or wetlands. In the unlikely event that a renewable energy project results in impacts to federally protected wetlands or waters of the state, that project would be subject to approval by the USACE through a Section 404 Permit and/or approval by the CDFW through Streambed Alteration Agreements. If a Section 404 Permit from the USACE is required, a Section 401 Water Quality Certification will also be required from the Lahontan RWQCB. The applicable permits would require mitigation as determined by the USACE, RWQCB, and/or CDFW for any consequent impacts. Consequently, impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
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The major wildlife corridors within the City primarily exist within the Mojave River Corridor, washes and creeks. There are also potential for wildlife corridors along the existing utility easements. As discussed above related to riparian habitat, the Mojave River and natural drainage channels are generally designated for open space and limited impacts to these areas would be allowed to occur. Corridors in existing easements would also be protected from development for consistency with existing utility facilities. Therefore, implementation of the Regional Reduction Plan is not anticipated to impair the use of the Mojave River, washes, creeks, and utility easements in the City as wildlife movement corridors.

There are trees and shrubs scattered throughout the City that may be used for nesting or roosting by migrating birds. The Regional Reduction Plan would not grant specific entitlements for development; therefore, implementation of The Regional Reduction Plan would not directly impact vegetation that could be used by migrating birds. Development of renewable energy generation projects under the Regional Reduction Plan would be required to comply with the federal MBTA. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds. Furthermore,

plants protected under the City's Biotic Resources Ordinance must be evaluated by a qualified biologist or arborist. The plants or trees are inspected and tagged, indicating that the plant or tree can be transplanted, must remain in place, or can be removed. Consequently, impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
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Implementation of the Regional Reduction Plan would be required to comply with Adelanto General Plan policies and the Biotic Resources Ordinance in the City's Municipal Code, which require proper assessment of biological resources before authorizing development, and incorporation of mitigations for any identified sensitive biological resources. Projects that implement the Regional Reduction Plan would be required to demonstrate compliance with the General Plan policies and the City's Municipal Code during the City's development review process. Consequently, impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?
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There are no local habitat conservation plans or natural community conservation plans that apply to the City of Adelanto. The West Mojave Plan may be expanded to include nonfederal land in the future, but does not apply to development in the City at this time. Compliance with the City's existing development review process would require surveys and mitigation for sensitive species, including those covered by the West Mojave Plan, such as the desert tortoise and Mohave ground squirrel. Therefore, impacts would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

Threshold	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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As discussed at a project-level analysis, the Regional Reduction Plan does not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain habitat. After compliance with the City's survey requirements and applicable requirements of the California and federal endangered species acts, including requirements of the USFWS regarding critical habitat, renewable energy facilities built during implementation of the proposed Regional Reduction Plan would not have substantial adverse impacts on sensitive animal species at a project level. Because the City, state, and federal biological resources requirements are intended to protect biological resources at a regional level, and individual projects implementing the Regional Reduction Plan would be in compliance with these regional protections, the project's *cumulative impact would also be less than significant*.

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Increased renewable energy generation could be proposed during implementation of the proposed Regional Reduction Plan. As stated previously, individual projects undergoing development review in the City would be required to determine whether there is potential habitat on site for sensitive species. If sensitive species were found on site, the project proponent would be required to consult with the CDFW and other agencies as applicable regarding impacts to sensitive species and ensuing mitigation. Projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. This existing permitting process substantially limits degradation of habitat on a regional level. Therefore, on a cumulative level, implementation of the proposed project would not substantially degrade the riparian habitat on a regional basis, and the ***cumulative impact would be less than significant.***

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
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Increased renewable energy generation could be proposed during implementation of the proposed Regional Reduction Plan. However, these types of projects are not likely to affect bodies of water or wetlands. In the unlikely event that a renewable energy project results in impacts to waters of the state, that project would be subject to approval by the USACE through a Section 404 permit and/or the CDFW through Streambed Alteration Agreements and would require mitigation as determined by the USACE and/or CDFW for any consequent impacts. With Section 404 permits and Streambed Alteration Agreements, impacts to water bodies would be minimal and not result in cumulative impacts. The ***cumulative impact would be less than significant.***

Threshold	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
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Existing river, creeks, washes, and utility easements within the City could serve as local corridors for movement. However, implementation of the Regional Reduction Plan will not impair the use of these areas in the City as wildlife movement corridors. Development of renewable energy generation projects under the Regional Reduction Plan would be required to comply with the federal MBTA. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds. Because the Regional Reduction Plan would have no impact on wildlife corridors at a project level, the Regional Reduction Plan will not participate in a cumulative impact. Furthermore, compliance with the MBTA reduces both potential project-level and cumulative impacts to migratory birds to less than significant. Consequently, the ***cumulative impact would be less than significant.***

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
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Projects proposed under the Regional Reduction Plan and cumulative projects in the City would be required to demonstrate compliance with City requirements related to biological resources during the project's development review process. Therefore, the ***cumulative impact would be less than significant***.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?
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There are no regional habitat conservation plans or natural community conservation plans that apply to the City at this time. Therefore, the ***cumulative impact would be less than significant***.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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## 4.1.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b), and searches conducted on-line for resources listed in the NRHP and CRHR (Adelanto 1994a; Adelanto 1994b; and OHP 2013). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing cultural resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

Cultural resources are frequently defined in terms of tangible materials attributed to a culture. These include districts, sites, structures, artifacts, and other evidence of human use considered important to a culture or community for scientific, traditional, religious, or other reasons. Resources may be historical, archaeological, architectural, or archival in nature. Cultural resources may also consist of less tangible attributes, such as landscapes considered sacred to particular groups.

#### ***Prehistoric Setting***

The City of Adelanto lies within an area known to contain prehistoric archaeological materials, which include the material culture reflective of groups that preceded Euro-American contact and settlement. The prehistoric setting for this area includes several thousand years of land use and resource adaptation evidenced by prehistoric archaeological sites found throughout the Adelanto area, and concentrated in the vicinity of the Mojave River (Adelanto 1994b). The prehistoric setting is defined by four horizons or periods (Hesperia 2010), as outlined below:

- Desert Culture Period (12000 to ~10000 B.C.)
- Western Hunting Culture or Lake Mohave Period (~9000 to 5000 B.C.)
- Pinto Period (5000 to 2500 B.C.)
- Protohistoric (2500 B.C. to A.D. 1769)

#### ***Ethnohistoric Setting***

Adelanto is situated within the Serrano traditional use area. The Serrano traditional use area is mapped as encompassing the San Bernardino Mountains from the Cajon Pass in the west to beyond modern Twentynine Palms in the east, and from about Victorville in the north to near the San Gorgonio Pass in the south (Bean and Smith 1978). However, these borders are ill defined, due to a lack of reliable data and to the Serrano sociopolitical organization. The Serrano were organized into autonomous lineages occupying defined territories; however, these groups rarely identified a permanent habitation site. These groups were neither politically aligned, nor were they socially connected outside of each localized lineage (Strong 1972). For these reasons, the borders of the arbitrarily grouped Serrano peoples would vary greatly from lineage to lineage, depending upon their respective worldviews.

Studies on linguistic characteristics have indicated that the term Serrano had been academically applied to four different groups, including the Serrano, Kitanemuk, Vanyume, and the Tataviam (Alliklik) (Bean and Smith 1978; Johnston 1965). The Vanyume use area has been mapped to the north of Victorville, extending from the Cajon Pass in the west, to near modern Ludlow between the Cady and Bristol Mountains (Bean and Smith 1978). The Kitanemuk and Tataviam are found within the general vicinity of the Tehachapi Mountains.

### **Historic Setting**

Exploration, settlement, and exploitation of this region by Europeans were comparatively slow, due the harsh environmental conditions in the Mojave Desert. Nonetheless, there are some early American expeditions across the Mojave in 1827 and 1831 to establish routes from the Colorado River. Now known as the Mojave Trail, this route was based upon a pre-existing Native American trail complex, and linked the northernmost portion of Alta California to well established Mexican outposts, and then to locales beyond the modern California border.

In about 1885, nearby Victorville was established as a result of a railroad station constructed approximately one mile northwest of the narrows of the Mojave River. At this time, the community was known as Victor, and was named after Jacob Nash Victor, a construction superintendent for the California Southern Railroad (Santa Fe Railroad). On January 18, 1886, the Plan of the Town of Victor was prepared which created the grid pattern of the original town (Victorville 2013). Later, in 1915, Adelanto was founded in by E. H. Richardson. Richardson was the inventor of what eventually became the Hotpoint Electric Iron, and when he sold his patent, he purchased acreage in the area for \$75,000. Planning to develop one of the first master planned communities in southern California, Richardson subdivided his land into one-acre plots. He planned to sell his townsite plots to veterans with respiratory ailments suffered during World War I and also hoped to build a respiratory hospital. Richardson never fully actualized his dream; however, it was his planning that laid the foundation for what is currently the City of Adelanto (Adelanto 2013).

Adelanto became known throughout the state for fresh fruit and cider, and the area orchards thrived until the depression era. At this point, the orchards were replaced by poultry ranches (Adelanto 2013). On July 23, 1941, and during World War II, initial construction of Victorville Army Airfield commenced within the Adelanto sphere of influence (Adelanto 2013). The base was completed on May 18, 1943, and supported two Tactical Fighter Wings of the Tactical Air Command, as well as approximately 6,000 civilian and military personnel (Victorville 2013). In September of 1950, the airfield was named George Air Force Base in honor of the late Brigadier General Harold H. George (Adelanto 2013). On January 5, 1989, the Secretary of Defense announced the closure of George Air Force Base under the Base Closure and Realignment Act, and the base was deactivated on December 15, 1992. The former military base was annexed into Victorville on July 21, 1993, and has since been renamed Southern California Logistics Airport (Victorville 2013).

The City of Adelanto was incorporated in 1970 and became the smallest city in the County of San Bernardino County. The city became a Charter City in November 1992 (Adelanto 2013).

## ***Historical Resources in Adelanto***

### **Designation Process**

Significant cultural resources can include archaeological resources, historical structures, historical districts, traditional cultural properties, and landscapes. Such resources can be recognized in the context of national, state, regional or local history. Designation can occur at the federal level in the National Register of Historic Places (NRHP) and at the state level in the California Register of Historical Resources (CRHR). At the state level, resources can additionally be recognized as California Historic Landmarks (CHLs) and the California Points of Historic Interest (PHIs). Resources can often be designated locally; however, the City of Adelanto has not established criteria or a register to address resources at the local level. The criteria for consideration as an NRHP or CRHR resource are further discussed below, in the Regulatory Framework.

No NRHP or CRHR listed resources are located in the City. In addition, no listed CHLs or PHIs are found in the City of Adelanto (Adelanto 1994b and OHP 2013). However, resources may be present in the City which may be found eligible for listing on the NRHP or the CRHR upon future identification and evaluation.

### ***Archaeological Resources in Adelanto***

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. Archaeological sites contain significant evidence of human activity. Generally a site is defined by a significant accumulation or presence of: food remains, waste from the manufacturing of tools, tools, concentrations or alignments of stones, modification of rock surfaces, unusual discoloration or accumulation of soil, and/or human skeletal remains.

Prehistoric and historic age material culture has been located within the Adelanto planning area, and resources are concentrated in the vicinity of the Mojave River. Such resources are considered important to the understanding of the history of Native Americans in the region (Adelanto 1994b).

### ***Paleontological Resources in Adelanto***

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources; vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are those areas that show evidence of prehuman activity. Often they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important, since they may contain important, fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation.

The basin areas in this portion of the Western Mojave Desert are filled with sediments ranging in geologic age from Miocene to Recent. In the vicinity of Barstow, sedimentary rocks are interbedded with flows of volcanic rocks. The Hesperia-Victorville area is located on the Victorville Fan, which was generally considered to have a high potential for containing nonrenewable vertebrate fossil remains.

However, while these sediments are potentially fossiliferous, they are surpassed by the ancestral Pleistocene-age Mojave River sediments in sensitivity (Victorville 2008). Numerous vertebrate fossil localities are known from these sediments in the region and in the vicinity of Adelanto. Such soils have the potential to yield important fossil specimens which represent extinct species (Victorville 2008 and Hesperia 2010).

## ■ Regulatory Framework

### **Federal**

Federal regulations for cultural resources are primarily governed by National Historic Preservation Act of 1966 (NHPA) Section 106, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are listed or determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in 36 Code of Federal Regulations (CFR) Part 60. NHPA Section 106 requires federal agencies to take into account the effects of their undertakings on Historic Properties and affords the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR Part 800. The NRHP criteria (36 CFR 60.4) are used to evaluate resources when complying with NHPA Section 106. Those criteria state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and any of the following:

- (a) Are associated with events that have made a significant contribution to the broad patterns of our history
- (b) Are associated with the lives of persons significant in our past
- (c) Embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction
- (d) Have yielded or may be likely to yield, information important to history or prehistory

Eligible properties must meet at least one of the criteria and exhibit integrity. Historical integrity is measured by the degree to which the resource retains its historical attributes and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the property.

Historic Districts derive their importance from being considered a unified entity, even though they are often composed of a variety of resources. The identity of a district results from the interrelationship of its resources, which can be an arrangement of historically or functionally related properties. A district is defined as a geographically definable area of land containing a significant concentration of buildings, sites, structures, or objects united by past events or aesthetically by plan or physical development. A district's significance and integrity should help determine the boundaries.

Within historic districts, resources are identified as contributing and noncontributing. A contributing building, site, structure, or object adds to the historic associations, historic architectural qualities, or archaeological values for which a district is significant because it was either present during the period of

significance, relates to the significance of the district, and retains its physical integrity; or it independently meets the criteria for listing in the NRHP.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

Paleontological resources are considered under NHPA Section 106 primarily when found in a culturally related context (i.e., fossil shells included as mortuary offerings in a burial or a rock formation containing petrified wood used as a chipped stone quarry). In such instances, the material is considered a cultural resource and is treated in the manner prescribed for the site by Section 106.

The Antiquities Act of 1906 (Title 16, United States Code, Sections 431-433) protects any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States from appropriation, excavation, injure or destruction without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which the antiquities are situated. The California Department of Transportation, the National Park Service, Bureau of Land Management, U.S. Forest Service, and other federal agencies have interpreted objects of antiquity to include fossils. The Antiquities Act provides for the issuance of permits to collect fossils on lands administered by federal agencies and requires projects involving federal lands to obtain permits for both paleontological resource evaluation and mitigation efforts.

The federal Paleontological Resources Preservation Act of 2002 was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers; these researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

## **State**

Under CEQA, public agencies must consider the impacts of their actions on both historical resources and unique archaeological resources. Pursuant to Public Resources Code (PRC) Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (refer to PRC Section 21084.1 and CEQA Guidelines, Section 15064.5(a) and (b)). The term applies to any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes California resources listed in or formally determined eligible for listing in the NRHP, as well as certain CHLs and PHIs.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and California Code of

Regulations, Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)(3)). In general, a historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

- (a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and
- (b) Meets any of the following criteria:
  - 1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - 2) Is associated with the lives of persons important in our past;
  - 3) 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; or
  - 4) Has yielded, or may be likely to yield, information important in prehistory or history.

(CEQA Guidelines, Section 15064.5(a)(3))

Archaeological resources can sometimes qualify as historical resources (CEQA Guidelines Section 15064.5(c)(1)). In addition, PRC Section 5024 requires consultation with the Office of Historic Preservation when a project may impact historical resources located on state-owned land.

For historic structures, CEQA Guidelines Section 15064.5(b)(3) indicate that a project that follows the Secretary of the Interior (SOI) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the SOI Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, shall mitigate impacts to a level of less than significant. Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource's physical identity that existed during its period of significance. Integrity is determined through considering the setting, design, workmanship, materials, location, feeling, and association of the resource.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. PRC Section 21083.2(g) states that 'unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.  
(PRC Section 21083.2(g))

Treatment options under Section 21083.2 include activities that preserve such resources in place and in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation, or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Advice on procedures to identify cultural resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations, and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

CEQA affords protection to paleontological resources, as CEQA Guidelines indicate that a project would have a significant environmental impact if it would disturb or destroy a unique paleontological resource or site or unique geologic feature. Although CEQA does not specifically define a unique paleontological resource or site, the definition of a unique archaeological resource (Section 21083.2) can be applied to a unique paleontological resource or site and a paleontological resource could be considered a historical resource if it has yielded, or may be likely to yield, information important in prehistory or history under Section 15064.5 (a)(3)(D).

### **California Public Resources Code 5097.5**

California PRC Section 5097.5 provides protection for cultural and paleontological resources, where PRC 5097.5(a) states, in part, that:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

### **California Health and Safety Code Sections 7050.5, 7051, and 7054**

California Health and Safety Code Section 7050.5(b) specifies protocol when human remains are discovered. The code states:

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, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the

excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

### **California Public Resources Code Section 5097.98**

Section 5097.98 requires the NAHC to notify the most likely descendants regarding the discovery of Native American human remains upon notification by a county coroner. This enables the descendants to inspect the site of the discovery of Native American human remains within 48 hours of notification by the NAHC, and to recommend to the landowner or the person responsible for the excavation work means for treating or disposition, with appropriate dignity, the human remains and any associated grave goods. Further, this section requires the owner of the land upon which Native American human remains were discovered, in the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or the land owner rejects the recommendation of the descendant, to reinter the remains and burial items with appropriate dignity on the property in a location not subject to further disturbance.

### **Senate Bill 18**

As of March 1, 2005, Senate Bill 18 (Government Code Sections 65352.3 and 65352.4) requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction.

## **Regional**

### **County of San Bernardino Development Code**

The County of San Bernardino Development Code defines Cultural Resources Preservation (CP) Overlays. The CP Overlay is established by Development Code Sections 82.01.020 and 82.01.030, and is intended to provide for the identification and preservation of important archaeological resources. The County requires that a proposed project within the CP Overlay includes a report prepared by a qualified professional archaeologist that determines the presence or absence of archaeological and/or historical resources on the project site, as well as appropriate data recovery or protection measures. The CP Overlay may be applied to areas where archaeological and historic sites that warrant preservation are known or are likely to be present, as determined by cultural resources research and/or inventory. In highly sensitive CP Overlay Districts, the local Native American tribe would be notified in the event of uncovering evidence of Native American cultural resources. If requested by the tribe, a Native American Monitor shall be required during such grading or excavation to ensure all artifacts are properly protected and/or recovered (Section 82.12.050).

A Paleontologic Resources (PR) Overlay is also defined by the County under San Bernardino County Development Code Sections 82.01.020 (Land Use Plan and Land Use Zoning Districts) and 82.01.030 (Overlays). The PR Overlay may be applied to those areas where paleontological resources are known to occur or are likely to be present (determined through a paleontological records search). Detailed criteria for evaluation of paleontological resources and paleontologist qualifications are described in Development Code Sections 82.20.030 and 82.20.40.

The CP and PR Overlays are applicable to County lands; however, each local municipality has its own criteria for the preservation of local historic and prehistoric resources within their jurisdiction, as outlined below.

## Local

### City of Adelanto Municipal Code

The City Municipal Code does not contain information specific to the preservation of cultural and paleontological resources. However, exemptions from defined lot requirements are provided in the event that lots are used for the purpose of the preservation of a historic structure (Title 16 [Subdivisions], Chapter 16.48 [Lot Requirements], Section 16.48.040 [Exceptions]).

### Adelanto General Plan

The City of Adelanto goals, policies, and implementation strategies applicable to cultural resource<sup>6</sup> are as follows:

- Goal CUL 1** To preserve any known or undiscovered archaeological sites and/or artifacts which may be present within the Planning Area.
- Policy CUL 1.3** The City will place developers responsible for the destruction of historic and archaeologically significant resources on file with the County of San Bernardino and the State of California, Office of Historic Preservation.
- Policy CUL 1.4** The City will require that all archeological resources, historic or prehistoric be evaluated in accordance with CEQA regulations and appropriate California guidelines prior to the adoption of mitigation measures and the acceptance of conditions of approval and required permit approvals.
- Strategy CUL1.2.2** As part of the City's land development review process and project environmental assessment, City staff will review proposed developments for sites that may have potential archaeological significance. If determined necessary by the, City, an archeological survey will be performed by a licensed archaeologist and appropriate site specific mitigation measures shall be implemented, including possible extraction and cataloging of significant resources.
- Goal CUL 2** To assure that proposed development policies will not eliminate any significant archaeological [sic] or historic resources.
- Goal CUL 3** To provide a mechanism for the identification and preservation of archaeological [sic] or historic resources within the Planning Area.

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<sup>6</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

## ■ Project Impact Evaluation

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on cultural resources if it would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

### **Analytic Method**

The following analysis considers the presence and absence of historical, archaeological, or paleontological resources within the City. Historical resources include any resource listed in or determined to be eligible for listing in the NRHP, CRHR, certain CHLs and PHIs, as well as resources of regional or local significance that have been identified in a local historical resources inventory. The presence of historical, archaeological, or paleontological resources is then considered against the potential impacts on such resources from implementation of the Regional Reduction Plan. To gather information on known historical resources within Adelanto, various City planning documents were reviewed, and searches were conducted on-line for resources listed in the NRHP and CRHR (Adelanto 1994a; Adelanto 1994b; and OHP 2013).

### **Effects Not Found to Be Significant**

Threshold	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
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The City of Adelanto is known to have been home to Native American groups prior to settlement by Euro-Americans. Archaeological materials associated with occupation of the planning area are known to exist and have the potential to provide important scientific information regarding history and prehistory. Ground-disturbing activities, particularly in areas that have not previously been developed with urban uses (“native soils,” which include agricultural lands), have the potential to damage or destroy historic age or prehistoric archaeological resources that may be present on or below the ground surface. Such resources may be considered as historical resources, as defined in Section 15064.5(a)(3)(D) (“[h]as yielded, or may be likely to yield, information important in history or prehistory”). In addition to the status of archaeological resources as historical resources, a resource may also be a “unique archaeological resource,” as defined in CEQA Section 21083.2(g)(1)–(3). Further, archaeological resources are often of cultural or religious importance to Native American groups. The potential for impacts on archaeological resources as a result of the Regional Reduction Plan is considered low, as project implementation would not directly result in ground disturbance in previously undisturbed soils.

Policies in the Adelanto General Plan incorporate measures to protect and preserve cultural resources in the City. The General Plan policy and implementation strategy relevant to this impact are Policy CUL 1.4 and Implementation Strategy CUL 1.2.2.

All projects within the City of Adelanto are required to follow this policy and implementation strategy which includes surveys in areas of archaeological significance, evaluation of resources in accordance with CEQA, and the development and implementation of site specific mitigation measures, as appropriate. Adherence to the General Plan policy and implementation strategy will reduce impacts on archaeological resources to a less-than-significant level by requiring evaluation of any archaeological resources encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost. Consequently, impacts would be *less than significant*.

Threshold	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
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The City of Adelanto is located in a region containing deposits considered sensitive for paleontological resources. Sediments derived from the ancestral Mojave River have been known to yield significant fossil remains in the region, as well as within the immediate vicinity of Adelanto. Excavations into sediments derived from the ancestral Mojave River or other sensitive deposits would have the potential to impact paleontological resources. However, the Regional Reduction Plan does not include activities that would directly result in ground disturbance. Adoption of policies that promote transit-oriented development along existing and planned transit corridors (e.g., On-Road-1.2) could involve some limited amount of ground disturbance. However, these impacts would be an indirect effect of the Regional Reduction Plan, as the Regional Reduction Plan does not directly confer development approvals for improvements. Such ground disturbance, if it occurs in the future, would be subject to compliance with existing regulations and policies. As such, impacts would be *less than significant*.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?
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The Regional Reduction Plan does not include activities that would directly result in extensive ground disturbing activities, which renders it unlikely that human burials would be disturbed as a result of project implementation. In addition, and in the event human remains are encountered, the discovery is required to comply with California Health and Safety Code Sections 7050.5–7055. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are discovered during excavation of a site. As required by state law, the requirements and procedures set forth in California PRC Section 5097.98 would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission (NAHC), and consultation with the individual identified by the NAHC 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 overlie adjacent remains until the County Coroner has been contacted, the remains investigated, and appropriate recommendations made for the treatment and disposition of the remains. Given required compliance with state regulations that detail the appropriate actions necessary in the event human remains are

encountered, potential impacts associated with the implementation of the Regional Reduction Plan would be reduced to *less than significant*.

### Project Impacts and Mitigation Measures

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?
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Implementation of the Regional Reduction Plan will include energy-efficiency retrofit activities and the installation of solar on existing housing and existing commercial/industrial properties. These activities could be proposed at the site of an historical resource or at the site of a resource considered to be a potential historical resource. Future energy-efficiency retrofit activities and the installation of solar have the potential to result in significant impacts on historical resources within the City, including resources listed in or eligible for listing in the NRHP and/or CRHR. Significant impacts could include the delisting or loss of eligibility of such resources. In addition, the completion of energy-efficiency retrofit activities and the installation of solar have the potential to result in significant impacts on buildings or structures of historic age (50 years old or older), or buildings or structures which may eventually be of historic age, and which may qualify as historical resources pursuant to CEQA upon evaluation.

CEQA Guidelines Section 15064.5(b) states that “a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” The Regional Reduction Plan may allow for energy-efficiency retrofit activities and solar installation on existing housing and existing commercial/industrial buildings, and these activities have the potential to cause a substantial adverse change in the significance of an historical resource through alteration of a historical resource’s physical characteristics that conveys its historical significance. This is considered a potentially significant impact. General Plan Policy CUL 1.4 and Implementation Strategy CUL 1.2.2 would minimize impacts on archaeological resources which may qualify as historical resources, and Policy CUL 1.3 attempts to hold developers responsible if significant resources are destroyed.

With the application of the General Plan policies for cultural resources, as well as mitigation measure MM4.1.5-1 to address unidentified, potential historical resources (buildings or structures 50 years and older), impacts would be reduced to *less than significant*.

**MM4.1.5-1** *Prior to activities that would physically affect any buildings or structures 50 years old or older or affect their historic setting, a cultural resource professional who meets the Secretary of the Interior’s Professional Qualifications Standards for Architectural History shall be retained to determine if the project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Adelanto, the appropriate archival research, including, if necessary, a records search of the Archaeological Information Center (AIC) of the California Historical Resources Information System (CHRIS) and a pedestrian survey of the proposed improvements area to determine if any significant historic-period resources would be adversely affected by the proposed Regional Reduction Plan activities. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historical resources within the improvements area and includes recommendations and methods for eliminating or reducing*

*impacts on historical resources. Methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource.*

## ■ Cumulative Impacts

The cumulative analysis for impacts on cultural resources considers a broad regional system of which the resources are a part. The cumulative context for the cultural resources analysis is the Mojave Desert within San Bernardino County. In this area, common patterns of prehistoric and historic development have occurred. The analysis accounts for anticipated cumulative growth within the region.

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?
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Urban development that has occurred over the past several decades in the Mojave Desert within San Bernardino County has resulted in the demolition and alteration of innumerable historical resources, and it is reasonable to assume that present and future development activities will continue to result in impacts on historical resources. Because all historical resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Federal, state, and local laws protect historical resources in most instances. Even so, it is not always feasible to protect historical resources, particularly when preservation in place would prevent implementation of projects. However, compliance with CEQA, existing City policies as outlined in the General Plan, and the implementation of mitigation measure MM4.1.5-1, requires qualified professionals to conduct site-specific cultural resource investigations for future activities associated with the Regional Reduction Plan. Compliance with existing policies and MM4.1.5-1 will ensure that impacts on historical resources are appropriately assessed and that mitigation is performed, as necessary. In this manner, the project's incremental contribution to cumulative effects on historical resources would not be cumulatively considerable, and cumulative impacts are considered *less than significant*.

Threshold	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
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Based upon existing studies outlining intense resource use in this region, and the documented, observable material culture (i.e., artifacts) recovered from the prehistoric era to the present, the Mojave Desert within San Bernardino County is known to have high archaeological sensitivity, and development has resulted in substantial adverse changes in the significance of various archaeological resources prior to the implementation of regulations enacted for the purpose of avoiding disturbance, damage, or degradation of these resources. Future development may uncover or disturb known or previously unknown archaeological resources. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow CEQA and existing General Plan Policy CUL 1.4 and Implementation Strategy CUL 1.2.2. Potential impacts would be mitigated to levels that would not be significant through applicable regulations and existing policy. Therefore, the proposed Regional Reduction Plan's cumulative impact on archaeological resources is *less than significant*.

Threshold	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
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Past development has resulted in destruction of unique paleontological resources and unique geologic features. Based upon the geologic history of the Mojave Desert within San Bernardino County, and the high paleontological sensitivity of the rock units within this region, there is always the possibility that ground-disturbing activities during future construction may uncover previously unknown paleontological resources or sites or unique geologic features. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow existing regulations, including CEQA. Potential impacts would be mitigated to levels that would not be significant through applicable regulations. Therefore, the proposed Regional Reduction Plan’s cumulative impact on paleontological resources is ***less than significant***.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?
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Past development has disturbed human remains, including those interred outside of formal cemeteries. This has led to the implementation of specific requirements to preserve such remains, as codified in CEQA Guidelines Section 15064.5(e) and PRC Section 5097.98. There is always the possibility that ground-disturbing activities during future construction may uncover previously unknown and buried human remains. Treatment of human remains is covered under these standard regulatory requirements. Therefore, there is no significant cumulative impact with respect to disturbance of human remains. The proposed Regional Reduction Plan would be subject to the same regulations, and the Regional Reduction Plan’s cumulative impact on human remains is ***less than significant***.

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## 4.1.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a) and associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing geology/soils were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

Landforms of the planning area are quite diverse, including the Shadow Mountains, the Fremont Wash, the bluffs along the Mojave River, and the distant San Bernardino and San Gabriel Mountains. The topography within the planning area is relatively flat (1 percent or less) with the exception of the Shadow Mountains to the north. Erosion potential is considered minimal except for areas adjacent to the Mojave River, natural drainage channels, and the Shadow Mountains.

### ***Faulting and Seismicity***

The planning area is susceptible to disturbances from regional seismic activity, which includes the San Andreas Fault, located south and west of the planning area, and the Helendale Fault, north and east of the planning area. Local seismic faults have been identified in the vicinity of Adelanto. However, no seismic faults are located within the City or the planning area.

### ***Groundshaking***

Groundshaking is the most significant source of widespread earthquake damage. The intensity of groundshaking can be several times greater on sites underlain by thick deposits of saturated sediments than on bedrock. The amount of groundshaking at a particular site depends on:

- Characteristics of the earthquake source (magnitude, location and area of causative fault surface)
- Distance from the fault
- Amplification effects of local geologic deposit

The most common type of damage from groundshaking is structural damage to buildings, which can range from cosmetic damage to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong groundshaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong groundshaking.

### ***Ground Failure***

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading and lurching. Liquefaction is a process by which sediments below the water table temporarily lose strength

during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily occurring in recently deposited sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the particles to collapse. This causes the granular layer to behave temporarily as a viscous liquid rather than a solid, resulting in liquefaction.

Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity. This loss of strength commonly causes the structure to settle or tip. Loss of bearing strength can also cause light buildings with basements, buried tanks, and foundation piles to rise buoyantly through the liquefied soil.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement. Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature. Liquefaction conditions are most likely to exist along the Mojave River, or in sandy areas with high water tables.

### ***Landslides and Slope Failure***

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides and rock fall—processes that are commonly triggered by intense precipitation, which varies according to climactic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil.

Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows are another common type of landslide similar to earth flows, except that the soil and rock particles are coarser. Mudslide is a term that appears in nontechnical literature to describe a variety of shallow, rapidly moving earth flows.

Adelanto is not susceptible to dangers from slope instability because of the lack of extreme topographic variation. Adelanto is relatively flat (1 percent or less) with the exception of the Shadow Mountains to the north.

## **■ Regulatory Framework**

### ***Federal***

There are no federal regulations related to geologic and soil resources and hazards.

## **State**

### **California Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972. Its primary purpose is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The act requires the State Geologist to delineate “Earthquake Fault Zones” along faults that are “sufficiently active” and “well defined.” The act also requires that cities and counties withhold development permits for sites within an Earthquake Fault Zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault. There are no Alquist-Priolo Earthquake Fault Zones in Hesperia.

### **Seismic Hazard Mapping Act**

The Seismic Hazard Mapping Act was adopted by the state in 1990 for the purpose of protecting the public from the effects of nonsurface fault rupture earthquake hazards, including strong groundshaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The State has not published maps that cover the portion of San Bernardino County where Hesperia is located.

### **Senate Bill 547**

After the 1933 Long Beach earthquake, building codes changed prohibiting unreinforced masonry buildings, and few have been built in California since then; however, there are unreinforced concrete buildings that remain and pose a danger of collapse during seismic events. Senate Bill 547 (Government Code Sections 8875 et seq.), requires local governments to conduct an inventory of unreinforced concrete buildings within their jurisdiction and assess the hazard posed by this class of building. The Senate bill does not specify the level of performance required or expected, but leaves it up to each community.

### **California Building Code (2010)**

California Code of Regulations (CCR) Title 24, Part 2, the California Building Code (CBC), provides minimum standards for building design in the State. The 2010 CBC, effective January 1, 2011, is the current code and is based on the current (2009) International Building Code (IBC).

Each jurisdiction in California may adopt its own building code based on the 2010 CBC. Local codes are permitted to be more stringent than the 2010 CBC, but, at a minimum, are required to meet all state standards and enforce the regulations of the 2010 CBC beginning January 1, 2011. The City of Hesperia has adopted the 2010 CBC (Ordinance No. 254).

CBC Chapter 16 addresses structural design requirements governing seismically resistant construction (Section 1604), including, but not limited to, factors and coefficients used to establish seismic site class

and seismic occupancy category for the soil/rock at the building location and the proposed building design (Sections 1613.5 through 1613.7). Chapter 18 includes, but is not limited to, the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); and the design of footings, foundations, and slope clearances (Sections 1808 and 1809), retaining walls (Section 1807), and pier, pile, driven, and cast-in-place foundation support systems (Section 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304). CBC Appendix J includes, but is not limited to, grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Sections J109 and J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in CalOSHA regulations (CCR Title 8).

### **Natural Hazards Disclosure Act**

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 being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. California law also requires that when houses built before 1960 are sold, the seller must give the buyer a completed earthquake hazards disclosure report and a booklet titled “The Homeowners Guide to Earthquake Safety.” This publication was written and adopted by the California Seismic Safety Commission.

### **Local**

#### **City of Adelanto Municipal Code**

The City has adopted the CBC into its Municipal Code (Chapter 14.12 [California Building Code]), which regulates all building and construction projects within the City.

## **■ Project Impact Evaluation**

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on geology/soils if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - > Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
  - > Strong seismic groundshaking
  - > Seismic-related ground failure, including liquefaction
  - > Landslides

- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
- Be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

### **Analytic Method**

Baseline information to characterize geologic and soils conditions that could affect or be affected by the proposed project was compiled from readily available publications, including the General Plan, General Plan EIR and available resource mapping. GHG reduction measures selected by the City of Adelanto in the Regional Reduction Plan were reviewed to determine which actions could result in physical changes to the environment that could affect or be affected by seismic hazards, erosion, or other geologic or soils hazards.

### **Effects Not Found to Be Significant**

Threshold	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"><li>■ Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</li><li>■ Strong seismic groundshaking</li><li>■ Seismic-related ground failure, including liquefaction</li><li>■ Landslides</li></ul>
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There are no Alquist-Priolo Earthquake Fault Zones located within the planning area. However, Adelanto is located in a seismically active portion of Southern California. The Helendale (8 miles from Adelanto) and San Andreas Faults (15 miles from Adelanto) are located within close proximity to the City of Adelanto. However, implementation of the Regional Reduction Plan does not expose people to seismic induced hazards such as fault ruptures, groundshaking, liquefaction, seismically induced settlement, or landslides. Implementation of the reduction measures in the Regional Reduction Plan such as energy efficiency retrofits, energy, renewable energy generation, transit station improvements, or transit oriented development described in reduction measure On-Road Transportation-1 (Sustainable Communities Strategy) are required to comply with seismic safety provisions of the CBC (CCR Title 24, Part 2). Such compliance would reduce hazards arising from fault ruptures, groundshaking, liquefaction, seismically induced settlement, and landslides to less than significant. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be *less than significant*. No mitigation is required.

Threshold      Would the project result in substantial soil erosion or the loss of topsoil?

Short-term impact in regards grading and construction activities associated development within the City will expose soil, making it susceptible to wind and soil erosion or loss of topsoil. However, as a condition of approval requirement within the City of Adelanto Municipal Code Section 17.93, construction activities on project sites used to implement the reduction measures in the Regional Reduction Plan such as energy efficiently retrofits, renewable energy generation, bicycle and/or pedestrian infrastructure, and transit infrastructure, within the planning area are required to prepare an soil erosion and sediment control plan to minimize erosion during grading and construction, and such plan is required to be prepared in compliance with the Lahontan Regional Water Quality Control Board (RWQCB) standards. In addition to compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold      Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Specific improvements needed during implementation of the Regional Reduction Plan are required to comply with seismic safety provisions of the CBC (CCR Title 24, Part 2) and need to obtain a grading permit. Such compliance and City review of the improvements would reduce hazards arising from unstable geologic units and soils including landslides, lateral spreading subsidence, liquefaction, or collapse to less than significant. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold      Would the project be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property?

Individual projects implementing the reduction measures in the Regional Reduction Plan in the floodplain of the Mojave River considered for approval by the City could expose persons or structures to potentially significant hazards from expansive soils. However, compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold      Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and vehicle miles traveled to reduce transportation related emissions, waste diversion and water conservation programs. None of the reduction measures are related to or require the need for septic tanks or alternative wastewater disposal systems. The impact would be ***less than significant***. No mitigation is required.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not impact geologic and soil resources or hazards at a Project level, implementation of the Regional Reduction Plan will not create impacts to geologic and soil resources and hazards that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

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San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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## 4.1.7 Greenhouse Gas Emissions

This section of the EIR analyzes the potential environmental effects on greenhouse gas (GHG) emissions in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from various sources, including publications prepared by a number of professional associations and agencies that have suggested approaches and strategies for complying with CEQA's environmental disclosure requirements. Such organizations include the California Attorney General's Office (AGO), the California Air Pollution Controls Officers Association (CAPCOA), the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the Climate Registry, and the Association of Environmental Professionals (AEP). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing greenhouse gas emissions were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

The proposed project is located within the Mojave Desert Air (Basin). The regional climate within the Basin is considered semi-arid and is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperatures over 100.4° F (Town of Yucca Valley 2007). Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, vehicular traffic, and meteorology.

The City of Adelanto emitted approximately 188,539 metric tons (MT) of CO<sub>2</sub> equivalents (CO<sub>2</sub>e) in 2008. The emissions were calculated based on the 2012RTP traffic modeling, data from utilities, and land use. The largest portion of the City's 2008 emissions were from transportation (51.72 percent), followed by emissions from electricity and natural gas use in buildings (33.51 percent). Table 4.1.7-1 (2008 Net Total Emissions) summarizes the City's net 2008 emissions of CO<sub>2</sub>e as broken down by emissions category. This represents the baseline against which GHG emissions as a result of implementation of the Regional Reduction Plan are analyzed. A detailed breakdown of 2008 emissions by category is available in the Regional Reduction Plan.

### **Climate Change Background**

Parts of the earth's atmosphere act as an insulating blanket of the right thickness to trap sufficient solar energy and keep the global average temperature in a suitable range. The 'blanket' is a collection of atmospheric gases called 'greenhouse gases' based on the idea that these gases trap heat like the glass walls of a greenhouse. These gases, mainly water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone (O<sub>3</sub>), and chlorofluorocarbons (CFCs), all act as effective global insulators, reflecting visible light and infrared radiation back to earth. Human activities, such as producing electricity and driving internal combustion vehicles, have contributed to the elevated concentration of these gases in the atmosphere. This in turn is causing the earth's temperature to rise. A warmer earth may lead to changes in rainfall patterns, smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans.

<i>Category</i>	<i>Metric Tons of CO<sub>2</sub>e</i>
Energy	63,173
On-Road Transportation	97,508
Off-road Equipment	12,144
Water and Wastewater	4,307
Solid Waste	1,744
Agriculture	9,664
<b>Total</b>	<b>188,539</b>
Excluded Stationary Sources under Title V Permits <sup>a</sup>	16,597

a. Excluded from target setting and reductions due to lack of jurisdictional control (see Analytical Method section below)

The relationships of water vapor and ozone as GHGs are poorly understood. It is unclear how much water vapor acts as a GHG. The uncertainty is due to the fact that water vapor can also produce cloud cover, which reflects sunlight away from earth and can counteract its effect as a GHG. Also, water vapor tends to increase as the earth warms, so it is not well understood whether the increase in water vapor is contributing to or rather a result of climate change. Ozone tends to break down in the presence of solar radiation but is not understood well enough for evaluation. For these reasons, methodologies approved by the IPCC, United States Environmental Protection Agency (USEPA), and the California Air Resources Board (ARB) focus on carbon dioxide, nitrous oxide, methane, and chlorofluorocarbons. The following provides a brief description of each of these GHGs.

### **Carbon Dioxide**

The natural production and absorption of carbon dioxide occurs through the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions, such as those required to manufacture cement. Globally, the largest source of CO<sub>2</sub> emissions is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. A number of specialized industrial production processes and product uses, such as mineral or metal production, and the use of petroleum-based products, leads to CO<sub>2</sub> emissions.

CO<sub>2</sub> is removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle. Natural sources of CO<sub>2</sub> occur within the carbon cycle where billions of tons of atmospheric CO<sub>2</sub> are removed by oceans and growing plants and are emitted back into the atmosphere through natural processes. When in balance, total CO<sub>2</sub> emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, including burning of oil, coal, and gas and deforestation, increased CO<sub>2</sub> concentrations in the atmosphere by 35 percent as of 2005.

### **Methane**

Methane is emitted from a variety of both human-related and natural sources. CH<sub>4</sub> is emitted during the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of

global CH<sub>4</sub> emissions are related to human activities. Natural sources of CH<sub>4</sub> include wetlands, gas hydrates,<sup>7</sup> permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. CH<sub>4</sub> emissions levels from a particular source can vary significantly from one country or region to another. These variances depend on many factors, such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes resulting in CH<sub>4</sub> emissions from both human and natural sources. Also, the implementation of technologies to capture and utilize CH<sub>4</sub> from sources such as landfills, coal mines, and manure management systems affects the emissions levels from these sources.

### **Nitrous Oxide**

Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution reaching 314 parts per billion (ppb) by 1998. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce nitrous oxide. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N<sub>2</sub>O.

### **Chlorofluorocarbons**

Chlorofluorocarbons have no natural source, but were synthesized for uses as refrigerants, aerosol propellants, and cleaning solvents. Since their creation in 1928, the concentrations of CFCs in the atmosphere have been rising. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken, and levels of the major CFCs are now remaining static or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years. Since they are also a GHG, along with such other long-lived synthesized gases as CF<sub>4</sub> (carbontetrafluoride) and SF<sub>6</sub> (sulfurhexafluoride), they are of concern. Another set of synthesized compounds called HFCs (hydrofluorocarbons) are also considered GHGs, though they are less stable in the atmosphere and therefore have a shorter lifetime and less of an impact. CFCs, CF<sub>4</sub>, SF<sub>6</sub>, and HFCs have been banned and are no longer available. Therefore, these GHGs are not included further in this analysis.

### **Potential Effects of Global Climate Change**

Climate change could have a number of adverse effects. Although these effects would have global consequences, in most cases they would not disproportionately affect any one site or activity. In other words, many of the effects of climate change are not site-specific. Emission of GHGs would contribute to the changes in the global climate, which would in turn, have a number of physical and environmental effects. A number of general effects are discussed below.

**Water Supply.** California Health and Safety Code Section 38501(a) recognizes that climate change “poses a serious threat to the economic well-being, public health, natural resources, and the environment of California,” and notes, “the potential adverse impacts of [climate change] include ... reduction in the

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<sup>7</sup> Gas hydrates are crystalline solids that consist of a gas molecule, usually methane, surrounded by a “cage” of water molecules.

quality and supply of water to the state from the Sierra snowpack.” As most of the state depends on surface water supplies originating in the Sierra Nevada, this potential water supply reduction is a concern.

Most of the scientific models addressing climate change show that the primary effect on California’s climate would be a reduced snow pack and a shift in stream-flow seasonality. A higher percentage of the winter precipitation in the mountains would likely fall as rain rather than as snow in some locations, reducing the overall snowpack. Further, as temperatures rise, snowmelt is expected to occur earlier in the year. As a result, peak runoff would likely come a month or so earlier. The end result of this would be that the state may not have sufficient surface storage to capture the early runoff, and so, absent construction of additional water storage projects, a portion of the current supplies would flow to the oceans and be unavailable for use in the state’s water delivery systems.

In Yucca Valley, an increase in dry years associated with climate change would affect water supply by reducing groundwater recharge.

**Water Quality.** Climate change could have adverse effects on water quality, which would in turn affect the beneficial uses (habitat, water supply, etc.) of surface water bodies and groundwater. The changes in precipitation discussed above could result in increased sedimentation, higher concentration of pollutants, higher dissolved oxygen levels, increased temperatures, and an increase in the amount of runoff constituents reaching surface water bodies. Sea level rise, discussed above, could result in the encroachment of saline water into freshwater bodies.

**Ecosystems and Biodiversity.** Climate change could have effects on diverse types of ecosystems, from alpine to deep sea habitat. As temperatures and precipitation change, seasonal shifts in vegetation would occur, which would potentially have an effect on the distribution of associated flora and fauna species. As the range of species shifts, habitat fragmentation could occur, with acute impacts on the distribution of certain sensitive species. The IPCC states that “20 percent to 30 percent of species assessed may be at risk of extinction from climate change impacts within this century if global mean temperatures exceed 2 to 3°C (3.6 to 5.4°F) relative to pre-industrial levels” (IPCC 2007). Shifts in existing biomes<sup>8</sup> could also make ecosystems vulnerable to invasive species encroachment. Wildfires, which are an important control mechanism in many ecosystems, may become more severe and more frequent, making it difficult for native plant species to repeatedly re-germinate. In general terms, climate change would put a number of stressors on ecosystems, with potentially catastrophic effects on biodiversity.

**Human Health Impacts.** Climate change may increase the risk of vector-borne infectious diseases, particularly those found in tropical areas and spread by insects—malaria, dengue fever, yellow fever, and encephalitis (USEPA 2008). While these health impacts would largely affect tropical areas in other parts of the world, effects would also be felt in California. Warming of the atmosphere would be expected to increase smog and particulate pollution, which could adversely affect individuals with heart and respiratory problems, such as asthma. Extreme heat events would also be expected to occur with more frequency, and could adversely affect the elderly, children, and the homeless. Finally, the water supply impacts and seasonal temperature variations which could occur as a result of climate change could affect the viability of existing agricultural operations, making the food supply more vulnerable.

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<sup>8</sup> A biome is a major ecological community classified by the predominant vegetation, and hence animal inhabitants.

## Potential Effects of Human Activity on Climate Change

The burning of fossil fuels, such as coal and oil, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO<sub>2</sub> emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO<sub>2</sub> concentrations were found to have increased by nearly 30 percent above pre-industrial (c. 1760) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP), and is expressed as a function of how much warming would be caused by the same mass of CO<sub>2</sub>. Thus, GHG emissions are typically measured in terms of pounds or tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e) and are often expressed in metric tons (MT) or millions of metric tons (MMT) of CO<sub>2</sub>e.

- **Global Emissions**—Worldwide emissions of GHGs in 2004 were nearly 30 billion tons of CO<sub>2</sub>e per year (including both on-going emissions from industrial and agricultural sources, but excluding emissions from land-use changes) (United Nations 2007).
- **U.S. Emissions**—In 2004, the United States emitted 7.1 billion tons of CO<sub>2</sub>e. Of the four major sectors nationwide — residential, commercial, industrial, and transportation — transportation accounts for the highest percentage of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. In 2008, the United States emitted 6.9 billion tons of CO<sub>2</sub>e, with transportation accounting for the highest percentage of GHG emissions, approximately 32 percent (USEPA 2011).
- **State of California Emissions**—In 2004, California emitted approximately 483 million tons of CO<sub>2</sub>e, or about 6 percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per-capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state’s GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California’s fuel use and GHG emissions is its mild climate compared to that of many other states. In 2008, California’s GHG emissions were approximately 478 million metric tons CO<sub>2</sub>e, generally attributed to the reduced travel, and therefore, transportation emissions (USEPA 2010).
  - > The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the state’s GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as “other,” which includes residential and commercial activities (CEC 2007).

Various aspects of constructing, operating, and eventually discontinuing (demolition and disposal of waste) the use of industrial, commercial, and residential development will result in GHG emissions. Operational GHG emissions result from energy use associated with heating, lighting, and powering buildings (typically through natural gas and electricity consumption), pumping and processing water (which consumes electricity), as well as fuel used for transportation and decomposition of waste associated with building occupants. New development can also create GHG emissions in its construction and demolition phases in connection with the use of fuels in construction equipment, creation and decomposition of building materials, vegetation clearing, and other activities. However, it is noted that

new development does not necessarily create entirely new GHG emissions. Occupants of new buildings are often relocating and shifting their operational-phase emissions from other locations.

## ■ Regulatory Framework

### **Federal**

#### **U.S. Environmental Protection Agency**

The USEPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO<sub>2</sub> gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

#### **Federal Mandatory Greenhouse Gas Reporting Rule**

On September 22, 2009, USEPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-61), which required USEPA to develop “mandatory reporting of greenhouse gasses above appropriate thresholds in all sectors of the economy...” The Reporting Rule would apply to most entities that emit 25,000 MT CO<sub>2</sub>e or more per year. Starting in 2010, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for USEPA to verify annual GHG emissions reports.

#### **USEPA Endangerment and Cause and Contribute Findings**

On December 7, 2009, USEPA signed the Endangerment and Cause or Contribute Findings for GHGs under Clean Air Act (CAA) Section 202(a). Under the Endangerment Finding, USEPA finds that the current and projected concentrations of the six key well-mixed GHGs—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and hydrofluorocarbons (HFCs)—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, USEPA found that the combined emissions of these well-mixed GHGs from new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. These findings did not by themselves impose any requirements on specific industries or other entities. However, this action was a prerequisite to finalizing USEPA’s Clean Air Act (CAA) Title V permitting regulations known as the “Tailoring Rule” under the for new, large point source emitters and corporate average fuel economy (CAFE) standards for light-duty vehicles for future years.

#### **Clean Air Act Permitting (Tailoring Rule) for GHG Emissions**

On January 2, 2011 USEPA required states to implement new pollution control measures designed to reduce GHG emissions from new large emission sources such as power plants and refineries. The new GHG standards fall under CAA Title V; while the USEPA oversees compliance with the CAA, individual states are in control of issuing CAA Title V air permits. All states have adapted their air permit programs to comply with the GHG standards of the CAA except for Arizona and Texas. For these two

states, the USEPA will take over the issuing of air permits until such a time that the state can resume compliance. The final rule, called the “Tailoring Rule,” established a phased schedule that focuses the GHG permitting programs on the largest sources with the most CAA permitting experience in the first step. Then, in step two, the rule expands to cover large sources of GHGs that may not have been previously covered by the CAA for other pollutants. The rule also describes USEPA’s commitment to future rulemaking that will describe subsequent steps for GHG permitting. The “Tailoring Rule” requires all new sources or modifications of existing sources subject to the New Source Review Prevention of Significant Deterioration (PSD) for another regulated air pollutant under the CAA to also provide Best Available Control Technology (BACT) if the source has a potential to emit (PTE) at least 75,000 MT CO<sub>2</sub>e per year. In addition new sources that are not regulated under the CAA for other air pollutants, but have a PTE of at least 100,000 MT CO<sub>2</sub>e/year must provide BACT for GHG emissions.

### **Updated Corporate Average Fuel Economy (CAFE) Standards**

The current Federal CAFE standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and the state of California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in summer 2012 for model years 2017–2025, which will require a fleet average in 2025 of 54.5 mpg.

## **State**

### **California Air Resources Board**

California ARB, a part of the California EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, California ARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. California ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. California ARB has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

### **Executive Order S-3-05**

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels
- By 2020, California shall reduce GHG emissions to 1990 levels
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

### **Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006**

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHGs in California. California ARB has determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO<sub>2</sub>e. California ARB has adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit set by AB 32. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health.

Part of California's strategy for achieving GHG reductions under AB 32 are the early action greenhouse gas reduction measures, which include the following: a low carbon fuel standard; reduction of emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (California ARB 2007).

### **Assembly Bill (AB) 1493—Pavley Rules**

Known as "Pavley I," AB 1493 standards were the nation's first GHG standards for automobiles. AB 1493 requires the California ARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as "Pavley II", now referred to as the "Advanced Clean Cars" measure) has been proposed for vehicle model years 2017–2025. Together, the two standards are expected to increase average fuel economy to roughly 43 mpg by 2020 (and more for years beyond 2020) and reduce GHG emissions from the transportation sector in California by approximately 14 percent. In June 2009, USEPA granted California's waiver request enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year. USEPA and the California ARB have worked together on a joint rulemaking to establish GHG emissions standards for model-year 2017–2025 passenger vehicles. As noted above, the federal government completed rulemaking in summer 2012 resulting in adoption of new standards that would lead to fleet average of 54.5 mpg in 2025.

### **Senate Bill (SB) 1078, SB 107, and SB 2—Renewable Portfolio Standard**

SB 1078 and SB 107, California's Renewable Portfolio Standard (RPS), obligates investor-owned utilities (IOUs), energy service providers (ESPs), and Community Choice Aggregations (CCAs) to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent is reached, no later than 2010. The California Public Utilities Commission (CPUC) and California Energy Commission (CEC) are jointly responsible for implementing the program. SB 2 (2011) set forth a longer-range target of procuring 33 percent of retail sales by 2020.

### **Executive Order S-01-07—Low Carbon Fuel Standard**

Executive Order S-01-07 mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and (2) that an LCFS for transportation fuels be established in California. The executive order initiated a research and regulatory process at California ARB. California ARB developed the LCFS regulation pursuant to the authority under AB 32 and adopted it in 2009. In late 2011, a federal judge issued a preliminary injunction blocking enforcement

of the LCFS, ruling that the LCFS violates the interstate commerce clause (Georgetown Climate Center 2012). The injunction was lifted in April 2012 so that California ARB can continue enforcing the LCFS pending California ARB's appeal of the federal district court ruling.

### **State Bill 375**

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs, such as the Southern California Council of Governments (SCAG), which includes Orange County, will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. SCAG's reduction target for per capita vehicular emissions is 8 percent by 2020 and 13 percent by 2035 (California ARB 2010). The MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

### **Senate Bill 97**

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. In March 2010, the California Office of Administrative Law codified into law CEQA amendments that provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions, as found in CEQA Guidelines Section 15183.5. To streamline analysis, CEQA provides for analysis through compliance with a previously adopted plan or mitigation program under special circumstances.

### **Executive Order S-13-08**

Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, provides clear direction for how the state should plan for future climate impacts. The first result is the 2009 California Adaptation Strategy (CAS) report which summarizes the best known science on climate change impacts in the state to assess vulnerability and outlines possible solutions that can be implemented within and across state agencies to promote resiliency.

### **California Code of Regulations (CCR) Title 24**

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) (Title 24), were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity.

Therefore, increased energy efficiency results in decreased GHG emissions. The 2008 standards are the most recent version which went into effect in January 1, 2010.

CCR Title 24, Part 11 (California's Green Building Standard Code) (CALGreen), was adopted in 2010 and went into effect January 1, 2011. CALGreen is the first statewide mandatory green building code and significantly raises the minimum environmental standards for construction of new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water conservation, and require construction waste recycling.

### **Greenhouse Gas Cap-and-Trade Program**

On October 20, 2011, California ARB adopted the final cap-and-trade program for California. The California cap-and-trade program will create a market-based system with an overall emissions limit for affected sectors. The program is currently proposed to regulate more than 85 percent of California's emissions and will stagger compliance requirements according to the following schedule: (1) electricity generation and large industrial sources (2012) and (2) fuel combustion and transportation (2015). The first auction will be in late 2012 with the first compliance year in 2013.

### **Regional**

#### **Southern California Association of Governments (SCAG)**

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Southern California Association of Governments (SCAG) regional plans cover Riverside County, which includes the City and SOI, and five other counties within Southern California.

#### *Regional Comprehensive Plan*

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.

- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, “people-scaled” communities
- Providing new housing opportunities, with building types and locations that respond to the region’s changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM<sub>10</sub>, PM<sub>2.5</sub>, ultrafine), and carbon monoxide

### *Regional Transportation Plan*

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG’s SCS. The 2012 RTP strives to provide a regional investment framework to address the region’s transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other non-vehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region’s TCM strategies.

SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035.

### *SCAG Compass Growth Visioning*

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

### **San Bernardino County GHG Reduction Plan**

Following San Bernardino County's adoption of its General Plan in March 2007, the California Attorney General filed a lawsuit alleging that the EIR prepared for the General Plan Update did not comply with the requirements of CEQA in its analysis of GHG emissions and climate change. Subsequently, the County and the Attorney General entered into an agreement to settle the lawsuit, which included an agreement by the County to: (1) prepare an amendment to its General Plan adding a policy that describes the County's goal of reducing those GHG emissions reasonably attributable to the County's discretionary land use decisions and the County's internal government operations; and, (2) prepare a GHG Emissions Reduction Plan, which includes inventories, a reduction target, and, reduction measures to meet the reduction target, by regulating those sources of GHG emissions reasonably attributable to the County's discretionary land use decisions and the County's internal government operations.

The County's GHG Reduction Plan fulfilled the requirements of the settlement agreement and includes a comprehensive analysis and inventory of GHG emissions within the unincorporated County areas and emissions from County government operations within municipalities, 2020 forecasted emissions, a set of reduction measures used to reduce 2020 emission levels down to the reduction targets for the County, and a monitoring and updating framework designed to keep the County on-track toward achieving the reduction targets.

The technical data, emission inventory processes, and methodology used in the San Bernardino County GHG Reduction Plan became the foundational inventory processes and methodology used in this Regional Reduction Plan.

## Local

### Adelanto General Plan

In preparing the Adelanto General Plan, the City placed special attention on incorporating and identifying goals and policies which encourage and will provide a sustainable environment for the community. In addition, the City also focused on developing goals and implementation policies which provide for adaptability to a changing natural environment. A complete listing of these policies is provided in Section 4.1.0 (Introduction to the Analysis). The General Plan includes the following policies<sup>9</sup> specifically related to global climate change:

- Policy LU 1.1** Promote low per capita water use through the use of low water consumptive plant materials/ desert plants (xeriscape).
- Policy LU 1.3** Promote the addition of wastewater recycling facilities and the reuse of treated water for appropriate purposes.
- Policy LU 3.2** Offer a wide range of development opportunities for investors, developers, residents and businesses. The City encourages the development of mixed use projects, providing a balance of homes, jobs, and services.
- Policy RE 1.2** Encourage higher density residential developments in areas of Adelanto that are located around commercial centers, and major urban nodes. Mixed Use projects are considered ideal, in that jobs, homes, and services are in close proximity.
- Policy CLU 3.4** Where feasible, pedestrian and bike paths should connect commercial development with adjacent residential areas.
- Policy MI 3.2** Where feasible, pedestrian and bike paths should connect MI development to residential neighborhoods.
- Policy MI 4.1** Encourage the incorporation of bus stops, van pool programs, or other transit options as a condition of development.
- Policy HE 3** Encourage development of residential uses in strategic- proximity to employment centers and transportation routes. Implement the following criteria for evaluation: affordable housing; adequate public services and facilities; adjacent land uses which are compatible with residential development; and convenient access to: public transportation and freeways, employment centers, recreational facilities (passive and active), schools, and neighborhood commercial areas.
- Policy CE 6** Investigate all options for the implementation of a high speed rail system from the Orange, Riverside and San Bernardino County areas to a new major airport.
- Policy CE 7** Begin investigating the applicability of a local/subregional transit system and necessary rights of way needed in Adelanto and the surrounding area.
- Policy BIO 1.2** The City will encourage the use of native vegetation and drought tolerant trees to enhance the environment within the City

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<sup>9</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- Policy NR 1.1** The City shall promote the development and use of alternative energy sources, such as passive solar in industrial, commercial, and residential developments.
- Policy NR 1.3** The City will encourage residential, commercial, industrial users to conserve the use of water and other renewable and non-renewable natural resources by incorporating conservation measures.
- Policy NR 1.4** All new developments will be required to implement energy conservation techniques into the development design.
- Policy NR 1.6** Conservation techniques shall be required for proposed development (both domestic and industrial) to minimize consumption levels of renewable and non-renewable natural resources including water resources.
- Policy AQ 1.2** The City will require all new developments, as defined by State requirements and implementing ordinances to institute any required Transportation Systems Management Plan (TSM).
- Policy AQ 1.5** The City will organize land uses wherever possible to create a desirable jobs/housing balance for the region.
- Policy AQ 1.8** The City will consider all feasible means of reducing vehicle miles traveled by City employees and residents.
- Policy AQ 1.9** The City will require new developments to consider pedestrian access in project plan designs.
- Policy AQ 1.10** The City encourages mixed-use developments that provide shopping and employment opportunities in close proximity to residential areas.
- Policy AQ 1.11** The City encourages the use of support facilities in office complexes and commercial areas to promote pedestrian commuting.
- Policy AQ 1.12** The City will require projects to consider land use alternatives that include mixed uses and pedestrian access improvements.
- Policy WQ 1.1** The City will require that development be designed and constructed to conserve water utilizing low flow irrigation and plumbing fixtures and facilities.
- Policy WQ 1.2** The City will study the use of alternative water resources such as reclaimed water for irrigation of parks, recreational, industrial, residential, and other urban uses within the City.
- Policy WQ 1.5** The City will require that all new development utilize water conservation techniques to conserve water resources, such as the use of low-flow irrigation and plumbing systems in new and existing development.
- Water Goals** Achieve a reduction in the existing consumption of water by implementing conservation measures prior to approving new development in areas experiencing water supply shortages.
- Maximize the use of existing water resources through conservation programs and efficient ground and surface water management programs.
- Improve and rehabilitate water distribution systems to prevent losses from leakages and to maximize efficient water use.

Achieve conservation, reclamation, reuse, and other refinements in water management practices as an essential part of all water supply programs, whether in, urban, rural, or agricultural sectors.

As part of the preparation for the Regional Reduction Plan, the City of Adelanto selected a goal to reduce its community GHG emissions to a level that is 30 percent below its projected emissions levels in 2020. This is the Reduction Target for the City. To fulfill this commitment the City is participating in this Regional Reduction Plan. Additional details of the City's portion of the Regional Reduction Plan are provided in Section 4.1.0 of this EIR and the Adelanto chapter of the Regional Reduction Plan.

## ■ Project Impact Evaluation

### ***Thresholds of Significance***

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on greenhouse gas emissions if it would do any of the following:

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

### ***Analytic Method***

The impact analysis for the Regional Reduction Plan is based on a GHG emissions analysis, which is presented in the environmental analysis, below. The Regional Reduction Plan document includes community-wide GHG emissions inventories for the City of Adelanto for the following scenarios: 2008, 2020 business-as-usual (BAU), and 2020 reduced. The 2008 inventory is the baseline; this was the most recent year for which adequate data was available and uniform to all the Partnership Cities. The baseline emissions inventory was also used to establish the reduction target for the year 2020.

As stated above the GHG Reduction Target for the City is to reduce the GHG emissions to a level that is 30 percent below projected emissions level for 2020.

The 2020 BAU scenario represents the forecasted emissions for the City without the incorporation of recently adopted measures to reduce GHG emissions. The 2020 reduced scenario demonstrates the effects of the Regional Reduction Plan reduction measures and their ability to reduce Adelanto's emissions to levels at or below the reduction target. The methodology and assumptions used in this analysis are detailed in Appendices A and B of the Regional Reduction Plan. Also refer to the Regional Reduction Plan (included in Appendix B of this EIR) for model inputs and sources, model output and detailed calculations. A summary of the Regional Reduction Plan methodology is provided below.

The emissions and emissions reduction calculations performed for the Regional Reduction Plan followed guidance provided by the California Air Pollution Control Officers Association (CAPCOA), other reference sources (such as the USEPA, CEC, California ARB, and Intergovernmental Panel on Climate Change), and ICF International's professional experience obtained from preparing climate action plans

for other jurisdictions in California. Baseline emissions inventories were completed by quantifying GHG sources in the region based on information provided by local utility providers, the Southern California Association of Governments (SCAG), and local land use information. These sources were multiplied by GHG emissions factors from a variety of sources, including EMFAC2011, and guidance from the reference sources listed above. 2020 business as usual emissions were estimated based on anticipated growth in the residential and commercial/industrial areas, and the projected increase in vehicle miles traveled (VMT) determined by SCAG. Refer to Appendices A and B of the Regional Reduction Plan for a detailed methodology of the GHG emissions and emission reduction calculations. The complete Regional Reduction Plan is included in Appendix B of this EIR.

Because the impact each GHG has on climate change varies, a common metric of CO<sub>2</sub>e is used to report a combined impact from all of the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential, and is expressed as a function of how much warming would be caused by the same mass of CO<sub>2</sub>. Thus, GHG emissions in this analysis are measured in terms of metric tons of CO<sub>2</sub>e.

Note that some stationary sources within the City are permitted under CAA Title V. Permitted industrial process such as oil and gas production (combustion), petroleum production and marketing, chemical production, mineral processes, and other permitted industrial processes are strictly regulated under the CAA by MDAQMD, California ARB, and USEPA. The City cannot change in any way the industrial process and BACT emission reduction devices on these permitted sources. Because the City does not have jurisdictional control over these point source industrial processes, GHG emissions from these permitted stationary sources are not included in determining GHG Reduction Target setting or subject to City administered reduction measures associated with them in the Regional Reduction Plan. However, MDAQMD permit regulations, and in some cases the USEPA Tailoring Rule and California Cap and Trade Program will regulate and reduce GHG emissions from these permitted industrial process sources. GHG emissions from these permitted stationary sources in the City of Adelanto totaled 16,597 MT CO<sub>2</sub>e in 2008.

**Effects Not Found to Be Significant**

Threshold	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
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Implementation of the Regional Reduction Plan in the City of Adelanto would result in the reduction of GHG emissions over the long term, which would be a beneficial effect. Area source reduction strategies such as energy efficient buildings and solar installation would reduce GHG emissions. Construction activities, such as building energy retrofits and grading or excavation activities, if required, for installation of energy-generating structures, would result in temporary, short-term emissions of GHGs. These temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits and renewable energy projects that are part of the reduction measures in the CAP that would result in an overall reduction in GHG emissions.

Table 4.1.7-2 (GHG Emission Inventories and Reductions in the City of Adelanto) quantitatively shows the reductions of GHG emissions in 2020 that result would result from implementation of the Regional

Reduction Plan in the City of Adelanto and compares the reduced emissions with the City Reduction Target.

<b>Table 4.1.7-2 GHG Emission Inventories and Reductions in the City of Adelanto</b>					
<i>Category</i>	<i>Metric tons of CO<sub>2</sub>e</i>				
Emission Source	63,173	92,446	42,001	50,445	45.40%
Energy	97,508	161,472	43,896	117,576	27.20%
On-Road Transportation	12,144	17,655	3,157	14,498	17.90%
Off-road Equipment	1,744	2,381	270	2,110	11.30%
Wastewater Treatment	9,664	4,925	0	4,925	0.00%
Water Conveyance	1,262	1,876	176	1,699	9.40%
Solid Waste	3,045	5,222	1,122	4,100	21.50%
Agriculture	—	—	7,139	—	—
GHG Performance Standard for New Development <sup>a</sup>	188,539	285,976	97,760	188,216	43.20%
<b>Total</b>	—	—	<b>58,793</b>	<b>200,183</b>	<b>30.00%</b>
<b>Reduction Target</b>	—	—	<b>58,793</b>	<b>200,183</b>	<b>30.00%</b>
Does the Plan Meet the Reduction Target?	No	No	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>Reductions Beyond Target</b>	—	—	<b>11,967</b>	—	—
Excluded Stationary Sources under Title V Permits <sup>b</sup>	16,597	22,015	—	—	—

Values may not sum due to rounding.

a. The GHG Performance Standard for New Development is not a sector of the inventory, but it contributes toward the reduction target by promoting reductions in multiple sectors. See the Regional Reduction Plan Chapter 4 for a complete description of this measure.

b. Excluded from target setting and reductions due to lack of jurisdictional control (see Analytical Method section above).

The reduction measures that reduce GHG emissions down to levels below the Reduction Target are discussed in Section 4.1.0 of this EIR. Regional Reduction Plan Chapter 4 has additional details of these reduction measures.

The Regional Reduction Plan includes emission inventories, forecasted emissions, a reduction target and reduction measures and quantification demonstrating that the reduction measures achieve the reduction target for the City of Adelanto.

The proposed project will result in a reduction of GHG emissions. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
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The proposed project is a GHG reduction plan and includes a baseline GHG emissions inventory for the year 2008, an emission reduction target for the year 2020, a forecasted emissions inventory under a business-as-usual scenario for 2020, and a reduced 2020 inventory that demonstrates the emissions reductions achieved with the implementation of the Regional Reduction Plan reduction measures.

Table 4.1.7-2 summarizes the 2008 GHG emissions for the City. The emissions in 2008 totaled 188,539 MT CO<sub>2</sub>e. The largest source of emissions was transportation, followed by energy use.

The 2020 BAU emissions inventory for the City was estimated in the Regional Reduction Plan using the Adelanto General Plan and SCAG growth rates for the City from 2008 to the year 2020. The BAU inventory represents the projected City emissions without the incorporation of recently adopted sustainability measures or reduction measures included in the proposed project. Table 4.1.7-2 summarizes the 2020 BAU emissions inventory. The emissions are an estimated at 285,976 MT CO<sub>2</sub>e, an increase of 97,437 MT CO<sub>2</sub>e (or 34.07 percent) from the 2008 baseline. Similar to the 2008 inventory, the largest source of emissions is predicted to be transportation followed by emissions associated with energy use. The difference between the BAU-forecasted emissions and the established reduction target for the year 2020 is 200,183 MT CO<sub>2</sub>e. This is the amount the City must reduce in order to reach their target. Implementation of the Regional Reduction Plan reduces 188,216 MT CO<sub>2</sub>e of emissions in 2020 which exceeds the reduction goal by approximately 11,976 MT CO<sub>2</sub>e. This is a reduction of approximately 43.2 percent in 2020. Therefore the Regional Reduction Plan fulfills its own GHG reduction planning.

AB 32 is implemented through the Scoping Plan which is the state-wide plan for the reduction of GHG emissions. The Regional Reduction Plan complements the statewide efforts of the Scoping Plan by building upon the reduction measures administered by the State. For example, the Regional Reduction Plan Reduction Measure Energy-1 (Energy Efficiency for Existing Buildings) implements the energy efficiency retrofits contemplated in the Scoping Plan. Solar installation for new and existing housing and commercial buildings shown in the reduction measures of the Regional Reduction Plan, provide additional renewable energy sources beyond what was contemplated in the AB 32 Scoping Plan. In addition, the AB 32 Scoping Plan shows that statewide emissions would be reduced by approximately 29 percent below 2020 BAU. The Adelanto chapter of the Regional Reduction Plan demonstrates that the City reaches approximately that level of reduction, and would be consistent with regional reduction goals for consistency with AB 32. All of the reduction measures in the Adelanto chapter of the Regional Reduction Plan complement the reduction efforts of the AB 32 Scoping Plan. Therefore, the Regional Reduction Plan does not conflict with the AB 32 Scoping Plan.

Descriptions of the reduction measures are shown in Section 4.1.0 of this EIR and are described in further detail in Chapter 4 of the Regional Reduction Plan.

Senate Bill 375 (SB 375) requires SCAG to provide an SCS that will reduce GHG emissions from passenger vehicles and achieve the Regional Reduction Targets for GHG emissions from light-duty autos and trucks in the SCAG area. The SCS achieves the Regional Reduction Targets by providing changes in land use patterns that promote reductions in VMT and vehicle trips including transit oriented development with a mix of residential and commercial land uses that promote the use of transit rather than individual vehicles. Note that SCAG does not have land use authority in developing a land use pattern that will fulfill the SCS. Because of this, the land use patterns envisioned in the SCAG SCS need to be implemented by the local jurisdictions that have that land use authority. The Adelanto reduction measures also include local measures to provide the land use changes encouraged by the SCS. Further, the City's General Plan includes the following policies to promote land uses that reduce VMT and vehicle trips:

- Policy CLU 3.4** Where feasible, pedestrian and bike paths should connect commercial development with adjacent residential areas.
- Policy MI 3.2** Where feasible, pedestrian and bike paths should connect MI development to residential neighborhoods.
- Policy MI 4.1** Encourage the incorporation of bus stops, van pool programs, or other transit options as a condition of development.
- Policy HE 3** Encourage development of residential uses in strategic- proximity to employment centers and transportation routes. Implement the following criteria for evaluation: affordable housing; adequate public services and facilities; adjacent land uses which are compatible with residential development; and convenient access to: public transportation and freeways, employment centers, recreational facilities (passive and active), schools, and neighborhood commercial areas.
- Policy CE 7** Begin investigating the applicability of a local/subregional transit system and necessary rights of way needed in Adelanto and the surrounding area.
- Policy AQ 1.2** The City will require all new developments, as defined by State requirements and implementing ordinances to institute any required Transportation Systems Management Plan (TSM).
- Policy AQ 1.8** The City will consider all feasible means of reducing vehicle miles traveled by City employees and residents.
- Policy AQ 1.9** The City will require new developments to consider pedestrian access in project plan designs.
- Policy AQ 1.10** The City encourages mixed-use developments that provide shopping and employment opportunities in close proximity to residential areas.
- Policy AQ 1.11** The City encourages the use of support facilities in office complexes and commercial areas to promote pedestrian commuting.
- Policy AQ 1.12** The City will require projects to consider land use alternatives that include mixed uses and pedestrian access improvements.

The regional GHG reduction target for SCAG is 8 percent by 2020 and 13 percent by 2035, compared to 2005 GHG emissions on a per capita basis. As shown in Table 4.1.7-2, the Regional Reduction Plan would reduce Adelanto transportation emissions in 2020 by 27.2 percent compared to 2008 GHG emissions. Therefore, the City's General Plan and the statewide and county reduction measures in the Regional Reduction Plan provide the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Adelanto. Therefore, this impact would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

The analysis of GHG emissions is cumulative in nature, and no separate analysis is required.

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## 4.1.8 Hazards/Hazardous Materials

This section of the EIR analyzes the potential environmental effects on hazards/hazardous materials in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a) and associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing hazards/hazardous materials were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### ***Hazardous Materials and Hazardous Waste***

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials can occur from a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

#### **Hazardous Materials and Waste Sites**

There are no Class 1 (hazardous waste) disposal sites in San Bernardino County. Legal disposal of most hazardous waste must be accomplished by exporting the wastes to a Class 1 site outside of the County. Some hazardous-material is removed from the waste stream by reclamation and recycling, while a few industries treat their own wastes on site. The Landers and Needles disposal sites accept limited quantities of chemical toilet pumpings, grease trap wastes, crankcase oil and pumping from service stations and garage oil traps. While the Twentynine Palms site is approved for the same waste types as mentioned above, it can accept some wastes in larger amounts.

#### **Hazardous Materials Transportation**

The City of Adelanto is bisected by U.S. Highway 395, which is a major truck route between Southern California and Canada. Many hazardous waste materials are transported on Highway 395 and could affect local residents and the environment if an accident should occur.

#### ***Airport Hazards***

Southern California Logistics Airport (SCLA), formerly George Air Force Base is located in Victorville. It is the policy of the City of Adelanto to coordinate with the airport authorities to ensure that proposed land uses within the airport safety zones are consistent with the adopted master land use plans and land use compatibility plans for the airport.

## **Wildland Fire Hazard**

Fires present a unique threat in the City of Adelanto, particularly during summer months when temperatures exceed 100 degrees Fahrenheit and precipitation is almost non-existent. Potential for wildfires is high, as much of the planning area is undeveloped desert scrub vegetation with a high volatility factor. The abundance of brush and poor access contribute significantly to wildfires and may present significant danger to residents and structures.

### **■ Regulatory Framework**

There are numerous federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste. Federal and state statutes, as well as local ordinances and plans, regulate hazardous waste management. These regulations can reduce the danger hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

#### **Federal**

The USEPA is the primary federal agency that regulates hazardous materials and waste. The regulations are codified in Code of Federal Regulations (CFR) Title 40. USEPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management also includes the treatment, storage, or disposal of hazardous waste. RCRA authorized the USEPA to authority to control hazardous waste from generation to transportation, treatment, storage, and disposal. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as the Superfund, was enacted to protect the water, air, and land resources from the risks created by past chemical disposal practices such as abandoned and historical hazardous wastes sites. Through the act, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. Other key federal laws pertaining to hazardous materials and waste include the Emergency Planning and Community Right-to-Know Act (EPCRA) and Toxic Substances Control Act (TSCA). The U.S. Department of Transportation (USDOT) has established regulations (CFR Title 49) for the transport of hazardous materials and wastes.

#### **State**

California Department of Toxic Substances Control (DTSC) is a department of California Environmental Protection Agency (Cal/EPA), which authorizes DTSC to carry out the RCRA program in California. DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations [CCR] Title 22, Divisions 4 and 4.5). The State Water Resources Control Board (SWRCB), under the umbrella of Cal/EPA, provides assistance to local agencies enforcing underground storage tank (UST) requirements, and it also regulates groundwater cleanup programs.

## **Regional**

### **San Bernardino Fire Protection District**

The San Bernardino Fire Protection District, Hazardous Materials Division, was granted authority by the Cal/EPA to become the certified Unified Program Agency (CUPA) for San Bernardino County. The CUPA is directly involved in the inspection, permitting, and enforcement of hazardous materials manufacturers, hazardous waste generators. USDOT and the California Highway Patrol (CHP) regulate the transportation of hazardous materials while the DTSC is actively involved in the storage of hazardous materials and the cleanup of hazardous waste sites. The San Bernardino Fire Protection District also provides wildland fire suppression services and hazardous materials incident response.

### **San Bernardino County Solid Waste Management Plan**

The City of Adelanto has adopted the San Bernardino County Solid Waste Management Plan. This is in accordance with California Government Code Section 65302 that requires solid waste management to be addressed in a City's adopted General Plan, also that it must be consistent with the adopted San Bernardino County Solid Waste Management Plan as a plan of that agency's plan. The City has adopted the San Bernardino County Solid Waste Management Plan in order to mitigate problems associated with hazardous waste materials.

## **Local**

The City of Adelanto is actively involved in the regulation of land uses using hazardous materials. The City may also regulate the transportation of hazardous materials within the City limits. The CUPA requires businesses meeting requirements, pursuant to California Health and Safety Code Section 25503.5, to establish and implement a Hazardous Materials Business Plan in accordance with the section.

### **City of Adelanto Municipal Code**

There are no hazardous materials use regulations that are directly applicable to implementation of the Regional Reduction Plan local reduction measures in Adelanto.

### **Adelanto General Plan**

There are no General Plan policies that are directly applicable to implementation of the Regional Reduction Plan local reduction measures selected by Adelanto.

## **■ Project Impact Evaluation**

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on hazards/hazardous materials if it would do any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment
- If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area
- If within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

### **Analytic Method**

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would create or increase potential hazards or inhibit the ability to respond to hazards.

### **Effects Not Found to Be Significant**

Threshold	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
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The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and vehicle miles traveled to reduce transportation related emissions, waste diversion and water conservation programs. The GHG reductions do not involve the transport or use of hazardous materials. Waste diversion programs focus on recyclable materials and are regulated by current federal and state regulations, City ordinances, and Adelanto General Plan. These policies would regulate the handling of hazardous substances to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of hazardous materials and wastes. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be *less than significant*. No mitigation is required.

Threshold	Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
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Upset and accident conditions that result in hazardous materials incidents are primarily associated with industrial processes and transport of large quantities of materials (e.g., trucks hauling fuel). Implementation of the reduction measures in Adelanto would not involve processes or operations that would use or transport, or dispose of hazardous materials or wastes in large quantities or of a type that poses serious human health or environmental risks should an accident occur. There would be **no impact**.

Threshold	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?
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Implementation of the reduction measures in Hesperia would not involve processes or operations that would generate hazardous air emissions or involve the use of acutely hazardous materials, as defined in California Health and Safety Code Section 25316 and 22 CCR Section 66260. Installation of energy-saving retrofits in existing homes (Energy-1) and solar installation in new housing (Energy-4) would not involve the use of such materials. Any potential impacts associated with emissions during implementation of the Regional Reduction Plan would be regulated by the California health and safety code, Mojave Desert Air Quality Management District permits, and City of Hesperia health and safety codes to ensure that the Regional Reduction Plan does not emit hazardous emissions. Therefore, impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
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The Regional Reduction Plan does not propose siting reduction measures at particular locations. Siting of renewable energy generation is reviewed by the City Planning to ensure that implementation of the Regional Reduction Plan does not create a hazard to the public or the environment. The impact would be **less than significant**. No mitigation is required.

Threshold	Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?
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Southern California Logistics Airport (SCLA), formerly George Air Force Base is located in Victorville. It is the policy of the City of Adelanto to coordinate with the airport authorities to ensure that proposed land uses within the airport safety zones are consistent with the adopted master land use plans and land use compatibility plans for the airport. The City review of proposed projects such as renewable energy generation during implementation of the Regional Reduction Plan within the airport safety zones and near the airports ensures that implementation of these types of uses near airports does not result in safety hazards to people in the area. The impact would be **less than significant**. No mitigation is required.

Threshold	Would the project, if within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?
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One private airport and one private helipad are located within the City of Adelanto. Adelanto Airport is located near the intersection of Cactus Road and Beaver Road. The IPP Adelanto Helipad is located at the Los Angeles Department of Water and Power substation located south of Rancho Road, across the street from Adelanto Fire Department Station No. 322. The Regional Reduction Plan does not propose land uses in particular areas. Implementation of reduction measures such as renewable generation facilities would be reviewed by the City to ensure that placement of these types of facilities near a private airstrip or heliport would not create a safety hazard. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
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Emergency response plans have been prepared at the regional and local level. There are numerous evacuation routes within the City. None of the reduction measures selected by Adelanto would involve changes in land use or population, roadway configurations or capacity, or other changes in the environment that would directly or indirectly affect emergency response plans or evacuation routes. There would be *no impact*.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
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Wildland fires have historically occurred particularly during summer months when temperatures exceed 100 degrees Fahrenheit and precipitation is almost nonexistent. None of the reduction measures that could be implemented by Adelanto would involve the construction or operation of structures or development of new occupied uses that would be vulnerable to wildland fire hazard. There would be *no impact*.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not create hazards at a project level, implementation of the Regional Reduction Plan will not create impacts related to hazards and hazardous materials that are cumulatively considerable. Therefore, *cumulative impacts are less than significant*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

## 4.1.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b), and the City of Adelanto 2010 Urban Water Management Plan (UWMP). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing hydrology/water quality were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### **Regional Drainage**

The majority of the Adelanto storm waters drains to the Fremont Wash and ultimately into the Mojave River northeast of the Planning Area (Adelanto 1994b). The City of Adelanto drainage area, known as the Adelanto Watershed, originates at the drainage divide at the approximate 4,600-foot elevation in the Baldy Mesa area, about 16 miles south of the City. The northerly limit is along the junction with Fremont Wash; the easterly boundary is a meandering line that divides overland flows between Adelanto and Victorville; and the westerly boundary is a meandering tributary of Fremont Wash. There are approximately 98 square miles of drainage area lying within this area, of which 41 square miles lie north and 57 square miles lie south of Pearblossom Road (Adelanto 1992).

The drainage area features two distinct topographic regions. The southerly region, that area south of the California Aqueduct, features steep slopes and well defined drainage courses. The larger drainage courses, such as Manzanita Wash, were formed by streams during the Pleistocene Epoch and have since had their source of water removed. The northerly region, the area within 2 miles southerly and everything north of the aqueduct, forms a broad plain that slopes northerly at an approximate 1 percent gradient. The drainage courses that originate and pass through the southern region meander and eventually become less defined in the northerly region. Although several drainage courses exist, which pass through or around the City of Adelanto, runoff is primarily a sheet flow condition. Runoff through the drainage area ultimately joins Fremont Wash approximately 4 miles northwester of the City of Adelanto (Adelanto 1992).

Figure 4.1.9-1 (Drainage Master Plan) shows the location of the drainage facilities in the City according to the Adelanto General Plan.

#### **Local Surface Waters**

The City of Adelanto is located in the Mojave Basin, Alto subarea. The Fremont Wash is located in the central portion of the Planning Area which ultimately drains into the Mojave River. Mojave River forms the eastern boundary of the Adelanto Planning Area and is the most significant and sensitive resource in the City's Planning Area. Rare stretches of year-round surface water flow are found along this corridor. As previously discussed, the southerly drainage region (south of the California Aqueduct) features steep

slopes while the northerly region forms a broad plain with mild northerly slopes. The drainage flows in a northerly direction via a system of natural channels that drain into the Fremont Wash which then enters the Mojave River in the extreme northeast portion of the City (Adelanto 1994b).

## **Groundwater**

The City obtains all of its water supply from local groundwater in the Mojave River Basin. The Mojave River Basin covers an area of approximately 1,400 square miles and has an estimated total water storage capacity of nearly 5 million acre-feet. The Basin is basically a closed basin. Very little groundwater enters or exits the basin, but groundwater movement does occur between the different subareas, groundwater-surface water and groundwater-atmosphere interchanges. Groundwater is primarily recharged into the basin by infiltration from the Mojave River and storm runoff from San Gabriel and San Bernardino Mountains. The Mojave River provides an estimated average of 65,000 acre-feet per year (afy) per year of recharge to the Mojave River Groundwater Basin. Other sources of recharge include recharge from human activities such as irrigation return flows, wastewater discharge, and enhanced recharge with imported water. Groundwater is primarily discharged from the basin through well pumping, evaporation, transpiration, and seepage into lakes and the Mojave River. The Mojave Basin Area was the subject of a court ordered adjudication in 1993 due to the rapid growth within the area, increased withdrawals, and lowered groundwater levels. The court's Judgment appointed Mojave Water Agency (MWA) as Watermaster of the Mojave Basin Area.

Adelanto is one of ten major retail purveyors that provide the majority of water in the Mojave Basin Area under MWA's management. For management purposes under the Mojave Basin Judgment, MWA subdivided the Mojave River watershed and associated groundwater basins into five subareas (Alto, Baja, Centro, Este, and Oeste). The City lies within MWA's Alto Subarea. Adelanto and the other purveyors in the area supply water to their customers from local groundwater. MWA replenishes the groundwater supply, primarily with imported water purchased from the State Water Project (SWP). The court ordered adjudication of the Mojave Basin Area allocates a variable free production allowance (FPA) to each purveyor that supplies more than 10 afy, including Adelanto. Each allocated FPA represents the purveyor's share of the water supply available from the MWA Subarea. FPAs are determined as a percentage of the purveyor's highest verified annual use from 1986 to 1990. The FPA, which is currently set at 60 percent of the BAP for Adelanto, can vary from year to year depending on the Watermaster's safe yield projections for the Basin. If Adelanto, or another purveyor, pumps more than its allotted FPA in any year, they are required to purchase replacement water equal to the amount of production in excess of the FPA. Replacement obligations can be satisfied by either paying MWA, or by temporarily transferring unused FPA within the subarea from another party (Adelanto 2010).

In an effort to eliminate long-term overdraft conditions, the Mojave Basin Judgment directed MWA to manage conservation and recharge the basin with supplemental water. MWA has reduced allotments to purveyors each year and has recharged the Mojave River Basin in an effort to eliminate overdraft. MWA has invested in a groundwater replenishment system and groundwater monitoring to effectively manage the basin.

Water levels within the Alto Subarea in which Adelanto lies, are segregated for reference purposes, into three geographic areas as follows: (1) the Western portion, which is generally west of the Mojave River

(the river is included in the western portion); (2) the Eastern portion, which is generally east of the Mojave River; and (3) the Alto Transition Zone. Alto water levels near the river are relatively stable exhibiting seasonal variation, rising in winter and falling in summer. Wells near the river also indicate rising and falling water levels, which is consistent with available recharge from storms. Under current pumping conditions and long term precipitation, it is expected that wells near the river will remain stable. Water levels in the western portion of Alto have exhibited declines consistent with locally heavy pumping and limited local recharge. Water levels in the eastern portion of Alto indicate similar trends although to a lesser extent; most likely due to limited pumping in the regional aquifer east of the river. Continued pumping in depleted areas of the regional system may result in long local negative impacts such as declining yields and water quality problems. However, the Watermaster is not aware of any widespread problems in the regional system due to the falling water table. The relative stability of near river water levels and water levels in the Transition Zone indicate hydrologic stability in the relationship between Alto and the downstream Subareas (Adelanto 2010).

MWA maintains a comprehensive groundwater monitoring program consisting of over 900 monitoring wells in their service area. MWA's 2004 Regional Water Management Plan indicates there are water quality problems affecting drinking water supplies throughout the Mojave River Basin area. In recognition of the serious threat posed by groundwater contamination, MWA implements groundwater protection activities to maintain the groundwater and the aquifer and ensure a reliable high quality supply. These activities include water quality monitoring, managing recharge site activities, hazardous materials response, and education and coordination with local agencies (Adelanto 2010).

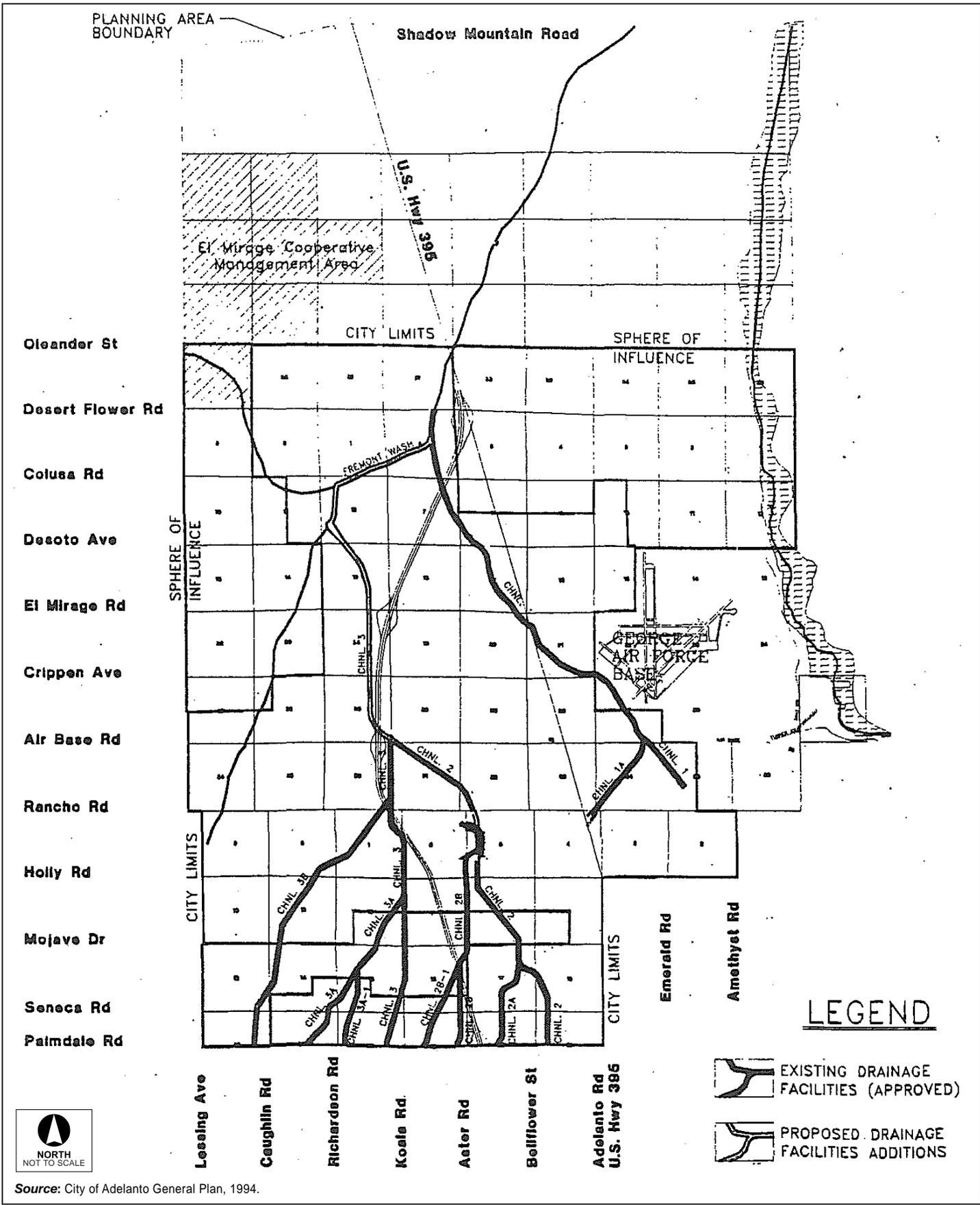
### **Flood Hazards**

Portions of the Planning Area are subject to Flooding during heavy rainfall, especially those areas adjacent to natural drainage courses. The Mojave River, located along the eastern boundary of the Planning Area is the major regional surface channel and is subject to periodic flooding. These areas are subject to 100-year flooding. Figure 4.1.9-2 (Potential Hazard Zones) shows the location of flood potential in Adelanto (Adelanto 1994b).

Except for the Shadow Mountains rising approximately 300 feet above the general terrain in the northwest portion of the Planning Area, the topography is relatively gentle with uniform slopes. The elevation of the southwest portion of the Planning Area is approximately 3,275 feet. The Fremont Wash in the central portion of the Planning Area is approximately 2,670 feet, or a difference of 605 vertical feet over an 11-mile horizontal distance. Thus, the average slope is about 1 percent. The southwesterly area is approximately 2 percent, becoming relatively flat with percentages of less than 1 percent in the central to northern portions of the community. Typical of the desert area, alluvial fans create drainage courses with sheet flows occurring over the entire area during thunderstorms and other storm events. The majority of storm runoff within the City drains into the Fremont Wash, which in turn drains into the Mojave River northeast of the Planning Area (Adelanto 1994b).

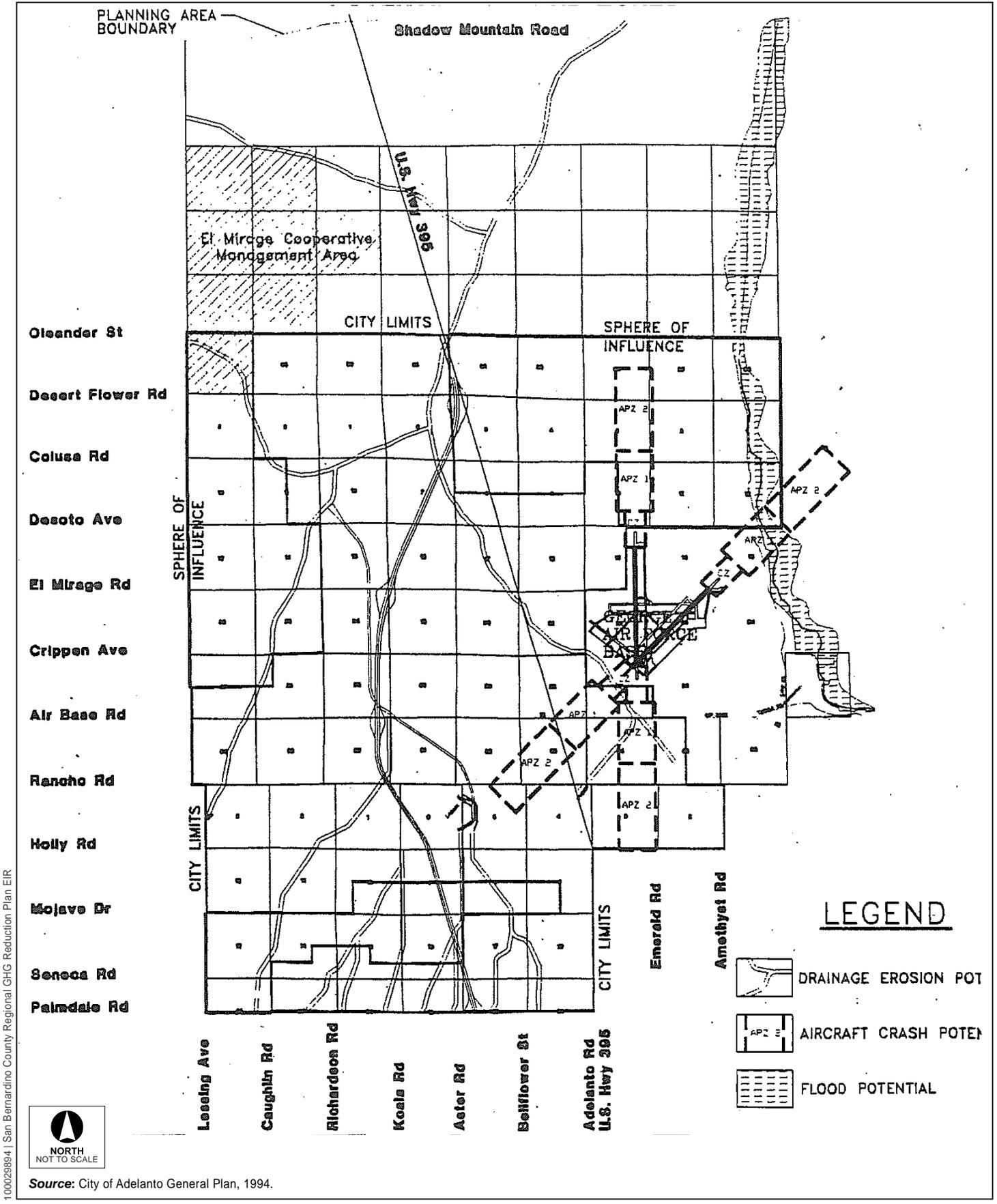
### **Designated Flood Zones**

As mentioned previously, the eastern portion of the City along the Mojave River is subject to periodic flooding. These areas are subject to 100-year flooding.



Source: City of Adelanto General Plan, 1994.

Figure 4.1.9-1  
Drainage Master Plan



100029894 | San Bernardino County Regional GHG Reduction Plan EIR



Source: City of Adelanto General Plan, 1994.

Figure 4.1.9-2  
Potential Hazard Zones

## **Dam and Levee Failure**

Dam and levee failure constitutes a serious risk to property and life due to the potential for sudden, massive and destructive flooding. Currently no dams are within the vicinity of Adelanto that present any inundation hazard. A number of levees are located throughout the City of Adelanto as part of flood control channels and basins which may present a flooding hazard if levee failure occurred.

## **Seiches**

A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. The City maintains seven welded steel tanks ranging in size from 0.75 million gallons (MG) to 5 MG. Water storage tanks are generally designed to withstand damage from earthquakes.

## **Mudflows**

A mudflow is a type of landslide composed of saturated rock debris and soil with a consistency of wet cement on steep slopes. The majority of the City is flat with a gentle slope downward in the northeasterly direction and mudflows are not likely to occur.

## **■ Regulatory Framework**

### **Federal**

#### **United States Environmental Protection Agency (USEPA)**

The USEPA is the primary federal agency that regulates water quality and water resources principally through the Clean Water Act and Safe Drinking Water Act.

### **Clean Water Act**

The federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) is the principal statute governing water quality. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters and sets water quality standards for all contaminants in surface waters. It is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. CWA Section 402 requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant into waters of the United States.

## Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) provides regulations on drinking water quality in Adelanto. The SDWA gives the USEPA the authority to set drinking water standards, such as the National Primary Drinking Water Regulations (NPDWRs or primary standards). The NPDWRs protect drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. All public water systems that provide service to 25 or more individuals are required to satisfy these legally enforceable standards. Water purveyors must monitor for these contaminants on fixed schedules and report to the USEPA when a maximum contaminant level (MCL) has been exceeded. MCL is the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Drinking water supplies are tested for a variety of contaminants, including organic and inorganic chemicals (e.g., minerals), substances that are known to cause cancer, radionuclides (e.g., uranium and radon), and microbial contaminants (e.g., coliform and Escherichia coli). Changes to the MCL list are typically made every three years, as the USEPA adds new contaminants or, based on new research or new case studies, revised MCLs for some contaminants are issued. The California Department of Health Services, Division of Drinking Water and Environmental Management, is responsible for implementation of the SDWA in California.

## National Pollution Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under CWA Section 402, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources include discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, most agricultural facilities are nonpoint sources and are exempt from NPDES regulation. Pollutants come from direct and indirect sources. Direct sources discharge directly to receiving waters, whereas indirect sources discharge wastewater to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point-source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Nonmunicipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are: Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues individual and general permits. Also, the USEPA has recently focused on integrating the NPDES program further into watershed planning and permitting.

NPDES has a variety of measures designed to minimize and reduce pollutant discharges. For example, pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) are regulated by the USEPA's Storm Water Phase II Final Rule.

The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to one acre. The City has not yet obtained an MS4 permit.

### **National Flood Insurance Program**

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies called flood insurance studies.

The Flood Disaster Protection Act requires owners of all structures in identified special flood hazard areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members in designated areas are able to participate in the National Flood Insurance Program afforded by FEMA. The program is required to offer federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the program by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

## **State**

### **State Water Resources Control Board**

The State Water Resources Control Board (SWRCB), a division of the California Environmental Protection Agency (Cal/EPA), regulates water resources including water quality within California. The SWRCB's mission is to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. SWRCB's regulatory authority is based upon USEPA's delegated authority of the NPDES permitting process within the state, and California's Porter-Cologne Water Quality Act. The SWRCB is divided into nine Regional Water Quality Control Boards (RWQCB), each regulating watersheds within their region.

### **Porter-Cologne Water Quality Act**

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. Under this act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan, or

Basin Plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The City of Adelanto is in the Lahontan Region 6. The Water Quality Control Plan for this region was last updated in 2010. This Basin Plan gives direction on the beneficial uses of the state waters within Region 6, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the established standards.

### **Storm Water Pollution Prevention Plans**

Construction site runoff is regulated statewide through a statewide NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002), adopted by the SWRCB September 2, 2009. To obtain coverage under the Construction General Permit, project proponents must file Permit Registration Documents (PRDs) prior to the commencement of construction activity, which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other documents required by the Construction General Permit. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater, as well as non-stormwater discharges.

The Construction General Permit requires specific minimum BMPs, depending upon the project sediment risk (Risk Levels 1 through 3). Risk Level 1 projects are subject to minimum BMP and visual monitoring requirements; Risk Level 2 projects are subject to numeric actions levels (NALs) and some additional monitoring requirements; and Risk Level 3 projects are subject to numeric effluent limitations (NELs) and more rigorous monitoring requirements, such as receiving water monitoring and, in some cases, bioassessment. The risk is a calculated value that is determined when the SWPPP is prepared. The SWPPP will identify the appropriate risk level and related BMPs and other requirements. The results of monitoring and corrective actions, if any, must be reported annually to the SWRCB. This permit also specifies minimum qualifications for SWPPP developers and construction site inspectors.

## **Regional**

### **Lahontan Region Water Quality Control Plan**

The SWRCB and the nine RWQCBs are responsible for the protection and, where possible, the enhancement of the quality of California's waters. The SWRCB sets statewide policy, and together with the RWQCBs, implements state and federal laws and regulations. Each of the nine RWQCBs adopts a Water Quality Control Plan or Basin Plan, which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems. The Lahontan Water Quality Control Plan, updated in 2010, establishes water quality standards for groundwater and surface water in the basin; that is, standards for both beneficial uses of specific water bodies and the water quality levels that must be maintained to protect those uses. The Basin Plan includes an implementation plan describing actions by the Lahontan RWQCB and others needed to achieve and maintain the water quality standards. The Lahontan RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's groundwater and surface waters. The Basin Plan lists water quality problems in the region, along with causes, where they are

known. Plans for improving water quality are included for water bodies with quality below the levels needed to enable all the beneficial uses of the water.

### **Mojave River Watershed Storm Water Management Program**

The purpose of the Mojave River Watershed Storm Water Management Program (SWMP) is to keep the Mojave River clean to the Maximum Extent Practicable (MEP) using Best Management Practices (BMPs). These BMPs will reduce storm water runoff and non-storm water runoff flowing to the river. They will also serve to keep contamination such as sediment, nonsediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons, pesticides, herbicides and trash from entering the storm drain system. The County of San Bernardino, the Town of Apple Valley, and the Cities of Victorville and Hesperia have been issued a Phase II, Municipal Stormwater Permit by the RWQCB, Lahontan Region, for the urbanized portion of the Mojave River Watershed. These agencies have collectively prepared the Mojave River Watershed Group Stormwater Management Plan, which describes control measures for protecting area water quality. Cities of Adelanto and Barstow are not currently in the Mojave Watershed group but they have been and will be kept advised of the group's activities (CRWRCB 2003).

### **Mojave Water Agency Regional Water Management Plan**

MWA's 2004 Regional Water Management Plan (RWMP), adopted on February 24, 2005, also serves as MWA's Groundwater Management Program as it contains all the relevant components related to Groundwater Management Plans in California Water Code Sections 10750–10753.10., as well as the components recommended by DWR in California's Groundwater, Bulletin 118 (CDWR 2003). The 2004 RWMP Update both complements and formalizes a number of existing water supply and water resource planning and management activities in the MWA service area that overlies several groundwater basins, as defined by DWR in Bulletin 118.

## **Local**

### **Adelanto Master Plan of Drainage**

In 1992, the City of Adelanto updated its existing 1985 Master Plan of Drainage (MPOD), using the 1986 San Bernardino County Hydrology Manual. The new manual utilizes substantially different procedures and assumptions, therefore significantly different peak flow rates were anticipated. The Master Plan update was necessary prior to beginning design of new drainage channels. The imminent growth in the City calls for the need for not only the update of the Master Plan in the existing development area, but rethinking the prior assumptions of very low or no development in other portions of the City. The drainage study proposes regional systems to carry storm runoff through the incorporated area of the City without having negative impacts on existing natural drainage systems.

### **Adelanto Urban Water Management Plan**

A UWMP prepared by a water purveyor documents the availability of an appropriate level of reliability of water service sufficient to meet the needs of various categories of customers during normal, single dry and multiple dry years. Having such a long-term reliable supply of water is essential to protect the productivity of California's businesses and economic climate. The California Water Management

Planning Act of 1983 (Act) as amended, requires urban water suppliers to develop an UWMP every five years in the years ending in zero and five. The City of Adelanto 2010 UWMP was adopted by resolution of the Adelanto Public Utilities Authority (APUA) on June 22, 2011, following a public hearing. Development of the UWMP was led by the Adelanto Water Department through the APUA. The APUA is charged with providing safe, good quality, uninterrupted water at a reasonable pressure, to meet health and fire protection needs of that portion of the city served by the public water system. The APUA staff coordinated with the City Planning Department and the City Clerk in development, distribution and adoption of the plan.

### **City of Adelanto Water Standards**

In 2006, the APUA published standard specifications for the furnishing and the construction of water facilities in Adelanto. The City Engineer shall decide within the provisions of the specification, all concerns regarding the quality or acceptance of materials furnished and work performed. The standards specify regulations that apply to pipeline materials; excavation, trenching, and backfill; pipeline installation; pipeline field tests; and pavement replacement.

### **City of Adelanto Municipal Code**

The City's Municipal Code addresses hydrology and water quality issues through the following sections:

- Chapter 17.93, Erosion and Sediment Control, calls for standards and design considerations that are pertinent to soil erosion, sediment control, run off control, and land clearing activities. The purpose of the Chapter is to eliminate and prevent accelerated erosion that has led to, or could lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil and vegetation cover, disruption of water supply, increased danger from flooding and the deposition of sediments and associated nutrients.
- Section 17.91.030 (Grading Guidelines Applicable to All Projects) calls for preserving natural drainage courses whenever practicable, consistent with the need to minimize flood and erosion hazards. Stream banks shall be stabilized with landscaping, rock, or other materials that harmonize with the natural setting and contain flows and control erosion. This section also provides guidelines to control runoff from construction sites consistent with NPDWS imposed by the SRWQCB and Chapter 19.93 of the Municipal Code, described above.

### **Adelanto General Plan**

The Adelanto General Plan policies that are applicable to hydrology, water quality and flood hazards<sup>10</sup> are as follows:

- Policy LU 1.1** Promote low per capita water use through the use of low water consumptive plant materials/desert plants (xeriscape).
- Policy NR 1.3** The City will encourage residential, commercial, industrial users to conserve the use of water and other renewable and nonrenewable natural resources by incorporating conservation measures.

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<sup>10</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- Policy WQ 1.1** The City will require that development be designed and constructed to conserve water utilizing low flow irrigation and plumbing fixtures and facilities.
- Policy WQ 1.5** The City will require that all new development utilize water conservation techniques to conserve water resources, such as the use of low-flow irrigation and plumbing systems in new and existing development.

### **Adelanto General Plan Environmental Impact Report**

The Adelanto General Plan Update EIR (1994) lists the following mitigation measures to minimize impacts to groundwater quality. The flood control and drainage measures are part of the overall community improvement program and should advance the goals of recreation, resource conservation, preservation of natural riparian vegetation and habitat, and the preservation of the scenic values of the City's streams and creeks. The City will continue to develop local area drainage plans and establish appropriate funding mechanisms. Developments are required to prepare specific hydrology and hydraulic studies at the time developments are proposed.

1. Programs for the continuous evaluation and designation of floodway, floodplain, and drainage areas shall be identified and financed.
2. The City will increase public awareness in regard to the potential hazards resulting from storm runoff, use of storm water for ground water recharge, and emergency measures during flood disasters.
3. The City will coordinate land use and flood control planning through continued improvement of staff contacts between the County Flood Control District and cities within the area.
4. Surface run-off from new development shall be controlled by proper facilities to reduce downstream flood hazards.
5. Structural controls and restrictions regarding changes in topography, removal of vegetation, creation of impervious surfaces, and periods of construction, such that the need for offsite flood and drainage control improvements is minimized and such that run-off from the development will not result in downstream flood hazards.
6. Consider ecological significance and aesthetic quality of natural drainage channels in the design of all drainage projects.
7. Preserve designated drainage channels and water courses such as creeks and river beds as resource management areas or linear parks and recreation trails, when possible.
8. Identify existing build-out drainage conditions and measures which must be taken within the development project or downstream from the project to preclude impacts on the proposed development or increase impacts to downstream development. This includes the identification of primary (Master Plan) and secondary drainage facilities. These studies should be submitted and reviewed by the City Engineer and the City Manager.
9. Fully account for all planned flood-control facilities within or adjacent to the project site. When sections of flood-control facilities cannot be constructed, provision should be made for their ultimate construction, that is rights-of-way reserved and construction funds secured. Additionally, interim facilities must be provided which will be able to handle the additional runoff from the proposed development until the planned flood control facilities are constructed.
10. Develop the drainage system in a natural state where possible.

11. Adherence to appropriate hazardous materials storage and handling plans will also be required per exposure limitations set by the Occupational Safety and Health Administration (CFR Title29) and per storage and disposal requirements set by the USEPA (CFR Title40).
12. A system of Detention/Retention basins and treatment facilities are recommended to be placed within the manufacturing/industrial areas of the City to mitigate any contamination impacts that could occur.
13. Establish a public information system through the Fire and Police Departments outlining emergency operations plans and measures to reduce losses in the event of a flood disaster.
14. Encourage property owners to check with the Engineering Department at City Hall to review flood hazard information.
15. Require the storm waters be used for groundwater recharge when possible.
16. Continue the development of intergovernmental coordination with adjacent cities, County Flood Control District, the Army Corps of Engineers, and other agencies which have an interest in flood control projects that cross jurisdictional boundaries.
17. Coordinate land use and flood control planning through continued improvement of staff contacts between the County Flood Control District, and cities within the areas, and through annual review of the Capital Improvements Program.

## ■ Project Impact Evaluation

### ***Thresholds of Significance***

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on hydrology/water quality if it would do any of the following:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows

- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Inundation by seiche, tsunami, or mudflow

### **Analytic Method**

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact hydrology, water quality, create or increase the potential for flood hazards or inhibit the ability to respond to flood hazards.

### **Effects Not Found to Be Significant**

Threshold	Would the project violate any water quality standards or waste discharge requirements?
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Water quality degradation in the City from erosion impacts would be specific to future project sites that could be developed and/or retrofitted as a result of implementing reduction measures in the Regional Reduction Plan, and depend largely on the areas affected and the length of time soils are subject to erosion. Although implementation of the Regional Reduction Plan may result in runoff during construction of individual projects, such as energy-generating facilities, that could adversely affect water quality beyond standards specified by the SWRCB, all reduction measure development requiring ground disturbance would be subject to regional and local regulations including the need for a SWPPP under NPDES No. CAS000002. In addition the City requires the obtainment of a grading permit for all developments that would require grading. In turn, all work requiring a grading permit would be required to have an approved Erosion Control Plan. Compliance with SWRCB's General Construction Activity Stormwater Permit regulations requiring a SWPPP would reduce the risk of water degradation within the City from soil erosion related to construction activities associated with the Regional Reduction Plan to less than significant. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be *less than significant*. No mitigation is required.

Threshold	Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?
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Implementation of the Regional Reduction Plan would not result in a substantial (if any) increase in impervious surfaces in the City. Energy retrofits, solar arrays, or wind turbines would not increase impermeable surface area in the City. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?
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Energy retrofits and passive energy-producing components such as photovoltaic arrays would not alter existing drainage patterns in the City, as they would consist of structural alterations, not an increase in overall building footprint. Some renewable energy-generating facilities that could be constructed on vacant land, hillsides, or open space areas could alter existing drainage patterns; however, as noted above, all construction would be subject to regulations related to water quality, erosion, and stormwater runoff. Individual projects associated with implementation of the Regional Reduction Plan would be subject to review by the City Engineer prior to issuance of a grading permit, which requires preparation of a SWPPP. Additionally, General Plan EIR mitigation measures described above require new development to preserve all natural drainage courses and develop new drainage in a natural state to the extent possible. Additionally, development projects are required to prepare hydrological studies to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. Consequently, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?
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Energy facilities under the Regional Reduction Plan could be constructed in a 100-year flood plain. Recognizing that the flood hazard areas of the City are subject to periodic inundation that can adversely affect the public health, safety and general welfare, all new development, including facilities constructed pursuant to implementation of the Regional Reduction Plan, would be required to prepare hydrological studies to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. Therefore, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
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The development of any new facilities during implementation of the Regional Reduction Plan within a road right-of-way or other areas that may impact storm drains must be coordinated with the City prior to the beginning of construction. Compliance with City provisions including the mitigation measures of the General Plan EIR would ensure that people and property are protected from flooding through responsible and efficient stormwater management. Additionally, all new development proposals in flood hazard areas are required to include hydrological studies prepared to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. City's review and compliance with NPDES permit requirements would ensure that the proposed project would not provide substantial

additional sources of polluted runoff. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project otherwise substantially degrade water quality?
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The Regional Reduction Plan would not otherwise substantially degrade water quality. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
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The Regional Reduction Plan does not include a housing component. There would be *no impact*.

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?
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Renewable energy generation facilities could be constructed in a 100-year flood hazard area as a result of the Regional Reduction Plan implementation. Municipal Code Chapter 17.91, Chapter 17.93, and Section 16.04.060 require new construction to provide adequate protection from potential flooding and preserve existing natural drainage courses. All development plans shall be submitted to the City Engineer for review. Additionally, General Plan EIR mitigation measures described above require all new development proposals in flood hazard areas to include hydrological studies prepared to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. As such, the development of energy facilities within the City's 100-year flood areas would not impede or result in the redirection of flood flows in the City. Compliance with the Municipal Code and General Plan policy is assured through City review of all proposed development. Therefore, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?
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Energy retrofits and passive energy solar arrays built during implementation of the Regional Reduction Plan may have a risk of flooding from dam failure. If wind farms or other energy-producing facilities are built in open space areas, they could be subject to increased risk from dam inundation depending on their location. However, all new development would be subject to the provisions of Municipal Code Chapter 17.91, Chapter 17.93, and Section 16.04.060 and General Plan EIR mitigation measures designed to minimize public and private losses due to flood conditions by ensuring proper design of structures or other mitigation to prevent against flood damages. Additionally, there are no dams in the vicinity of the City; however, there are levees in the City. The Regional Reduction Plan would not interfere with the County's responsibilities in maintaining and recertifying any levee within or protecting the City. Continued maintenance of area levees in accordance with Federal law will provide sufficient safeguards against potential damage due to levee failure. Therefore, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project inundation by seiche, tsunami, or mudflow?
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The City is not located within the immediate area of the Pacific Ocean; thus, there would be no impacts associated with inundation by tsunamis. The City maintains seven steel tank water reservoirs. Water storage tanks are generally designed to resist damage from earthquakes, therefore failure is not reasonably foreseeable. Additionally, the proposed project does not proposed any new homes or other structures for human occupancy.

The potential for mudflow is minimal. Except for the Shadow Mountains, the topography is generally flat with mild slopes. The City's building code provides minimum standards of construction, such as anchoring, placement and type of utility equipment, building materials, building elevation and flood proofing to protect structures from mudflow damage. Therefore, the impact would be ***less than significant***. No mitigation is required.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not significantly impact hydrology, water quality, or create flood hazards at a project level, implementation of the Regional Reduction Plan will not create impacts to hydrology, water quality or flood hazards that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

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## 4.1.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing land use/planning were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

The City of Adelanto is located in the high desert region of San Bernardino County. The City is on the southwest end of the Mojave Desert and on the eastern side of the San Gabriel Mountains, approximately 36 miles north of the City of San Bernardino. Other desert cities in the vicinity include Victorville to the east and south, Hesperia to the southeast, Apple Valley to the east, and Barstow to the northeast. Southern California Logistics Airport (formerly George Air Force Base) is located immediately adjacent to the City of Adelanto and forms the eastern edge of the community. The City is bisected by U.S. Highway 395, which runs north/south through Adelanto, providing access to the regional highway network, including Highway 15, Highway 18, and State Route 58.

### **Land Uses**

The City's planning area encompasses approximately 125 square miles (80,000 acres). Of this, approximately 32,000 acres are in the City boundaries and approximately 17,000 are within the sphere of influence (SOI). There are also approximately 25,600 acres between the northern SOI boundary and Shadow Mountain Road and 5,700 acres at the Southern California Logistics Airport (formerly George Air Force Base).

Adelanto is largely a residential community. However, a significant portion of the southern part of the City is designated for industrial, manufacturing, and commercial uses. Detached single-family residences account for around 78 percent of the housing stock in Adelanto and are mostly located to the north and south of the manufacturing area. The Adelanto planning area also has large portions of land that are open space and in its natural state.

There is one private airport and one private helipad in Adelanto. Adelanto Airport (52CL) is located near the intersection of Cactus Road and Beaver Road. The IPP Adelanto Helipad (CA12) is located at the Los Angeles Department of Water and Power (DWP) substation located south of Rancho Road, across the street from Adelanto Fire Department Station No. 322. Both of these facilities are privately owned and require permission prior to landing.

The eastern part of Adelanto is within the Southern California Logistics Airport Comprehensive Airport Land Use Plan (CALUP) Compatibility Review Area 3.

## **Future Growth**

The adopted 1994 General Plan guides growth for a 20-year planning period. Although Adelanto is one of the smaller communities in the high desert, it is expected to receive a large percentage of the growth projected for the region (approximately 20 percent). This is due, in part, because of the area available for development, in addition to the City's successful industrial development program that makes it attractive for businesses to locate in Adelanto. Residential development will continue to comprise a large part of citywide growth. Figure 4.1.10-1 (General Plan Land Use) shows the adopted General Plan land use map.

## **■ Regulatory Framework**

### **Federal**

There are no federal regulations pertaining to land use/planning.

### **State**

#### **California Air Resources Board**

The California Air Resources Board (ARB), a part of the California EPA (Cal/EPA) is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, California ARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. California ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. California ARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

#### **Executive Order S-3-05**

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels
- By 2020, California shall reduce GHG emissions to 1990 levels
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

The first California Climate Action Team Report to the Governor in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05. In April 2010, the Draft California Action Team (CAT) Biennial Report expanded on the policy oriented 2006 assessment. The new information detailed in the CAT Assessment Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last 2 years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts (Cal/EPA 2006). The action items in the report focus on the preparation of the Climate Change Adaptation Strategy, required by Executive Order S-13-08, described below.

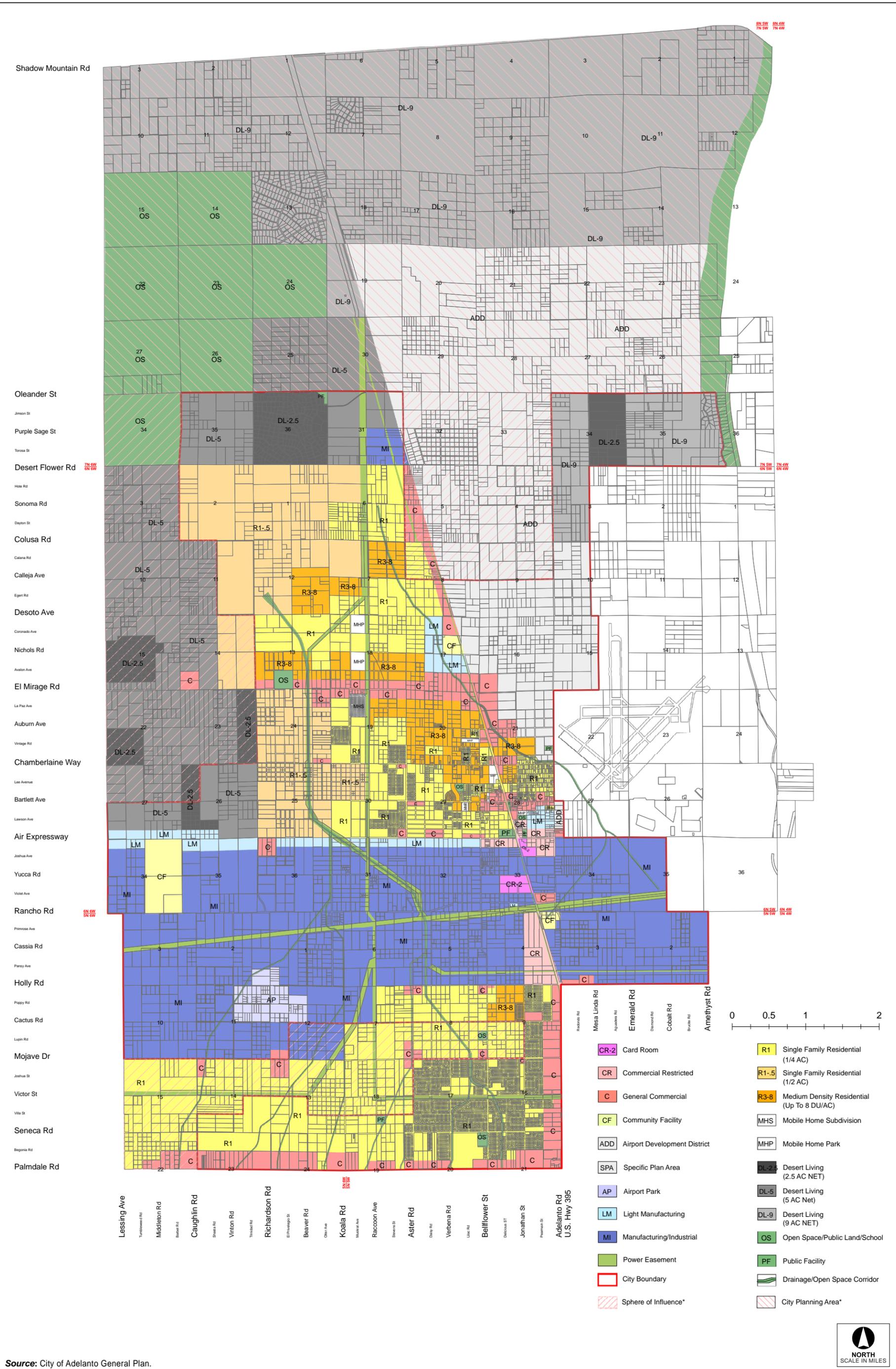


Figure 4.1.10-1  
General Plan Land Use



## **Assembly Bill 32, the California Global Warming Solutions Act of 2006**

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG in California. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 required California ARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, California ARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented by 2010. The law further required that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide greenhouse gas emissions limit for 2020.

California ARB published its final report for Proposed Early Actions to Mitigate Climate Change in California in October 2007. This report described recommendations for discrete early action measures to reduce GHG emissions. The measures included are part of California's strategy for achieving GHG reductions under AB 32. Three new regulations are proposed to meet the definition of "discrete early action greenhouse gas reduction measures," which include the following: a low carbon fuel standard; reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (California ARB 2007b). California ARB estimates that by 2020, the reductions from those three measures would be approximately 13 million to 26 million metric tons (MMT) carbon dioxide equivalent (CO<sub>2</sub>e).

Under AB 32, California ARB has the primary responsibility for reducing GHG emissions. California ARB has published a staff report titled California 1990 GHG Emissions Level and 2020 Emissions Limit (California ARB 2007a) that determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO<sub>2</sub>e. Additionally, in December 2008, California ARB adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The plan emphasizes a cap-and-trade program, but also includes the discrete early actions.

## **Senate Bill 97 (SB 97)**

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt the CEQA Guidelines.

On April 13, 2009, OPR submitted the proposed amendments to the Secretary for Natural Resources. The Natural Resources Agency conducted formal rulemaking in 2009, certified, and adopted the amendments in December 2009. The California Office of Administrative Law codified into law the amendments in March 2010. The amendments became effective in June 2010 and provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions.

CEQA Guidelines Section 15183.5 (Tiering and Streamlining the Analysis of GHG Emissions) was added as part of the CEQA Guideline amendments and describes the criteria needed in a Climate Action Plan that would allow for the tiering and streamlining of CEQA analysis for subsequent development projects. The following quote is from the CEQA Guideline amendments:

Section 15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.

- (a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175–15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).
- (b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.
  - (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
    - (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
    - (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
    - (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
    - (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
    - (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
    - (F) Be adopted in a public process following environmental review.
  - (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

One of the goals of the C-CAP is to allow programmatic level review and mitigation of GHG emissions that allows streamlining of CEQA review for subsequent development projects. To accomplish this, the C-CAP framework is designed to fulfill the requirements identified in CEQA Guidelines Section 15183.5, above.

## Executive Order S-13-08

On November 14, 2008, Governor Schwarzenegger issued Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, which provides clear direction for how the State should plan for future climate impacts. Executive Order S-13-08 calls for the implementation of four key actions to reduce the vulnerability of California to climate change:

- Initiate California's first statewide Climate Change Adaptation Strategy (CAS) that will assess the State's expected climate change impacts, identify where California is most vulnerable, and recommend climate adaptation policies
- Request that the National Academy of Sciences establish an expert panel to report on sea level rise impacts in California in order to inform State planning and development efforts
- Issue interim guidance to State agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects
- Initiate studies on critical infrastructure and land-use policies vulnerable to sea level rise

The 2009 CAS report summarizes the best known science on climate change impacts in the state to assess vulnerability, and outlines possible solutions that can be implemented within and across state agencies to promote resiliency. This is the first step in an ongoing, evolving process to reduce California's vulnerability to climate impacts (CNRA 2009).

## California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. The Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards for several reasons:

- To provide California with an adequate, reasonably priced, and environmentally sound supply of energy
- To respond to AB 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020
- To pursue California energy policy, which states that energy efficiency is the resource of first choice for meeting California's energy needs
- To act on the findings of California's Integrated Energy Policy Report (IEPR) that concludes that the Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak

demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions

- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes
- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards

### **Senate Bill 375**

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule.

### **Regional**

#### **Southern California Association of Governments (SCAG)**

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The SCAG regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

#### **Regional Comprehensive Plan**

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.

- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.
- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, “people-scaled” communities
- Providing new housing opportunities, with building types and locations that respond to the region’s changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM<sub>10</sub>, PM<sub>2.5</sub>, ultrafine), and carbon monoxide

### **Regional Transportation Plan**

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG’s SCS. The 2012 RTP strives to provide a regional investment framework to address the region’s transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional

Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

### **SCAG Compass Growth Visioning**

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

### **Mojave Desert Air Quality Management District (MDAQMD)**

The City of Adelanto is located within the Mojave Desert Air Basin (Basin) and is, therefore, within the jurisdiction of the MDAQMD. The MDAQMD is responsible for monitoring air quality and planning, implementing and enforcing programs designed to attain and maintain State and Federal ambient air quality standards in the district. In 2009, the MDAQMD adopted the CEQA and Federal Conformity Guidelines. These guidelines provide a framework for the district to monitor development to ensure they do not cause or contribute to any new violation of any air quality standard; increase the frequency or severity of any existing violation of any air quality standard; or delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. The MDAQMD has adopted attainment plans for a variety of non-attainment pollutants. Table 4.1.3-4 (MDAQMD Attainment Plans) in Section 4.1.3 (Air Quality) lists the air quality attainment plans applicable to Adelanto.

### **Habitat Conservation Plans**

The West Mojave Plan is a multiple species planning effort that encompasses 9.4 million acres in the Mojave Desert. The plan area extends from Olancho in Inyo County in the north to the San Gabriel and San Bernardino Mountains in the south, and from the Antelope Valley in the west to the Mojave National Preserve in the east. The plan focuses on the federally and State-listed desert tortoise and the State-listed Mohave ground squirrel, but also addresses 100 other special-status plant and wildlife species. The purpose of the West Mojave Plan is to provide regional or area-wide protection of natural areas and to promote perpetuation of natural wildlife diversity while allowing compatible development and growth. As of February 2013, this habitat conservation plan (HCP) for non-federal lands is not yet complete.

Until the Implementation Agreement is signed, the West Mojave Plan does not apply to lands under the jurisdiction of the City. Additional information on this plan is presented in Section 4.1.4 (Biological Resources).

### **Southern California Logistics Airport Comprehensive Land Use Plan**

The Southern California Logistics Airport is directly north of Adelanto, in Victorville. San Bernardino County and the cities of Adelanto and Victorville have adopted resolutions supporting a process where each local agency serves as the responsible agency for projects within the jurisdiction as it relates to land use planning and compatibility. Because the airport is located in Victorville, the City of Victorville has prepared the Comprehensive Land Use Plan (2008).

### **Local**

#### **City of Adelanto Municipal Code**

The City of Adelanto Zoning Ordinance (Municipal Code Title 17) provides specific standards for the development of property, such as building setbacks, parking, and allowable land uses within the City. The land uses in the Adelanto Zoning Ordinance are consistent with the uses established under the General Plan.

Municipal Code Chapter 17.45 establishes an Airport Park Overlay District to enhance safety to aviators and the general public by informing and notifying property owners of potential noise and safety issues generated from the Adelanto Airport Park, and to promote safe and harmonious development of those areas located within the Airport Park Overlay District as shown on the Adelanto General Plan Land Use/Zoning Map.

#### **Adelanto General Plan**

The Adelanto General Plan policies that are applicable to land use<sup>11</sup> are as follows:

- Policy LU 1.1** Promote low per capita water use through the use of low water consumptive plant materials/ desert plants (xeriscape).
- Policy LU 1.2** Retain natural drainage channels and assure construction of facilities necessary to accommodate flows generated by proposed development. Retention areas and spreading grounds are to be incorporated where feasible.
- Policy LU 1.3** Promote the addition of wastewater recycling facilities and the reuse of treated water for appropriate purposes.
- Policy LU 1.5** Protect environmentally unique and fragile areas such as bluffs, Joshua Tree woodland, the Mojave River Corridor and sensitive wildlife habitat areas.
- Policy LU 2.1** Encourage growth to occur according to the most efficient sequence from existing development to planned project areas.

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<sup>11</sup> These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- Policy LU 2.3** Allow for a range of street standards appropriate for the type and density of development, as well as the projected level of service of each roadway at buildout of the General Plan.
- Policy LU 3.2** Offer a wide range of development opportunities for investors, developers, residents and businesses. The City encourages the development of mixed use projects, providing a balance of homes, jobs, and services.
- Policy LU 3.3** Discourage the proliferation of "urban sprawl" by utilizing the general plan framework to foster a sense of community identity.
- Policy RE 1.1** Encourage a variety of residential development to help support the growing employment base, including single family, multifamily, and apartment projects.
- Policy RE 1.2** Encourage higher density residential developments in areas of Adelanto that are located around commercial centers, and major urban nodes. Mixed Use projects are considered ideal, in that jobs, homes, and services are in close proximity.
- Policy RE 3.1** Encourage the establishment of funding mechanisms to pay for the provisions of infrastructure and services to serve residential areas.
- Policy RE 4.2** Encourage the development of residential housing to take place via tracts, or larger scale developments as opposed to single lot development scattered throughout the City.
- Policy CLU 1.2** Plan for commercial areas at major arterial intersections (nodes) throughout the City.
- Policy CLU 2.1** Encourage adequate provision of infrastructure, circulation and public services as a condition of all commercial development.
- Policy CLU 3.2** Require that commercial developments minimize the impacts on residential areas from traffic, lights, visual appearance of parking and loading areas, building bulk and height, noise and drainage. Such means as landscaping, berms, fencing, trees, Open space, cul-de-sacs, building orientation, lower intensity of commercial uses (e.g., offices) should be utilized.
- Policy CLU 3.4** Where feasible, pedestrian and bike paths should connect commercial development with adjacent residential areas.
- Policy MI 3.1** Prepare a circulation plan that minimizes truck and through traffic on residential streets.
- Policy MI 3.2** Where feasible, pedestrian and bike paths should connect MI development to residential neighborhoods.
- Policy MI 4.1** Encourage the incorporation of bus stops, van pool programs, or other transit options as a condition of development.
- Policy OPC 1.2** Encourage the use of existing drainage channels/corridors to link proposed park sites via trails networks.
- Policy OPC 1.3** Encourage the location of parks adjacent to the Open Space/Drainage/Trails Network to foster linkage between recreational facilities.

**Policy OPC 3.1** Ensure that construction of all facilities in parks and open space areas comply with standards set forth in the Development Standards and Community Design Element.

## Adelanto North 2035 Sustainable Community Plan

In August 2011, the City of Adelanto was awarded a grant from the state for a Sustainable Communities Planning Grant and Incentives Program to prepare the Adelanto North 2035 Sustainable Community Plan. The Community Plan area encompasses 27 square miles of west Mojave Desert land in the City and unincorporated San Bernardino County. The plan is currently being developed. Its focus is to promote sustainable development based on the concept of activity centers surrounded by residential neighborhoods linked to adjacent jobs/business centers.

## ■ Project Impact Evaluation

### Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on land use/planning if it would do any of the following:

- Physically divide an established community
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community conservation plan

### Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable land use plan policies to determine if any inconsistency exists or whether implementation of the Regional Reduction Plan measures would result in land use incompatibilities. These land use plans include the SCAG's Regional Comprehensive Plan and Guide (RTP and Compass Growth Visioning), MDAQMD attainment plans, the Adelanto General Plan, and the City's Zoning and Development Code.

### Effects Not Found to Be Significant

Threshold	Would the project physically divide an established community?
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The General Plan encourages that growth and development occur according to the most efficient sequence from existing development to planned project areas. The measures proposed under the Regional Reduction Plan would not include any physical barriers that could divide an established community. There would be *no impact*.

Threshold	Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
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Several regionally and locally adopted land use plans, policies, and regulations would be applicable to development of infrastructure and renewable generation under the proposed Regional Reduction Plan. These include SCAG’s Regional Comprehensive Plan and Guide, 2012 RTP and SCS, City Municipal Code, and MDAQMD air quality attainment plans.

To fulfill the purposes of the Regional Reduction Plan, the City identified the following goals:

- Provide a list of specific actions that will reduce GHG emissions, with the highest priority given to actions that provide the greatest reduction in GHG emissions and benefits to the community at the least cost.
- Reduce the City of Grand Terrace community GHG emissions to a level that is 15 percent below its projected emissions level in 2020.
- Establish a qualified reduction plan for which future development within the City can tier and thereby streamline the environmental analysis necessary under the California Environmental Quality Act (CEQA).

The city will meet and exceed this goal through a combination of state (~65 percent) and local (~35 percent) efforts. The Pavley vehicle standards, the state’s low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Adelanto’s on-road, off-road, and building energy sectors in 2020. An additional reduction of 33,780 metric tons (MT) CO<sub>2</sub>e will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); GHG Performance Standard for New Development (PS-1); and Solar Installations for Existing Housing (Energy-7). Adelanto’s Plan has the greatest impacts on GHG emissions in the building energy, on-road transportation, and water conveyance sectors.

Figure 4.1-2 (Emissions Reduction Profile for Adelanto) in Section 4.1.0 (Introduction to the Analysis) shows Adelanto’s 2008 GHG emissions total, 2020 BAU emissions forecast total, and the total emissions remaining after meeting the city’s emissions reduction target (i.e., 30 percent below the projected 2020 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total (“2020 Plan”), representing the total emissions reductions achieved in 2020. As stated above, state/county reductions account for the majority (~65 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.1-3 (Emissions by Sector for Adelanto) in Section 4.1.0 presents emissions by sector, for both the 2020 BAU and the 2020 reduction or Regional Reduction Plan scenarios. The largest emissions contributions are in the on-road transportation, building energy, and off-road emissions sectors.

Table 4.1-3 (Emission Reduction by Sector for Adelanto) in Section 4.1.0 summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction (Regional Reduction Plan) results by sector. It shows the percent reduction in each sector’s emissions in 2020 and demonstrates that Adelanto exceeds its

emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, on-road transportation, and water conveyance sectors.

Figure 4.1-4 (Emission Reductions by Control and by Sector for Adelanto) in Section 4.1.0 presents emission reductions by sector and by control (i.e., state/county control versus local or city control). As stated previously, the majority of emissions reductions are due to state/county measures. Of the state/county measures, the majority of reductions are in the building energy and on-road transportation sectors. Of the local measures, the majority of reductions are in the building energy sector due to the implementation of SBX 7-7 (Water-4).

The Regional Reduction Plan reduction measure Transportation-1 (Sustainable Communities Strategy) includes mixed use development and transit oriented development. Mixed land use (i.e., residential developments near work places, restaurants, and shopping centers) with access to public transportation has been shown to save consumers up to 512 gallons of gasoline per year. It is estimated that households in transit-oriented developments drive 45 percent less than residents in auto-dependent neighborhoods. With this reduction, there is less overall energy consumption and fewer greenhouse gas emissions from personal vehicles. Going hand-in-hand with mixed-use development is the development of pedestrian corridors and bike trails that connect residents to work sites, shops, and recreational opportunities, which can also realize a reduction of personal vehicle use and fuel consumption.

Policies in the applicable land use plans identified above are designed to promote sustainability in land use planning. For example, SCAG's RTP provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from increased transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The air quality attainment plans establish a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the Basin. In addition to setting minimum acceptable exposure standards for specified pollutants, the attainment plans incorporate SCAG's growth management strategies that can be used to reduce vehicle trips and VMT, and hence air pollution. These include, for example, co-location of employment and housing, and mixed-use land patterns that allow the integration of residential and non-residential uses. The goals of the Adelanto General Plan promote sustainability.

The proposed project furthers the goals and policies in the identified land use plans by providing specific measures and programs that reduce greenhouse gas emissions, improve air quality, and facilitate transit-oriented development, thus reducing VMT. The Regional Reduction Plan facilitates mixed-use development in identified corridors near transit, as identified in the General Plan.

While a separate document, the Regional Reduction Plan will be utilized as a companion document to the Adelanto General Plan to provide a more comprehensive and detailed framework for land-based policy decisions to reduce greenhouse gas emissions from existing and future development. The Regional Reduction Plan will further the goals and policies of the General Plan with regard to energy conservation and sustainable development by implementing, in addition to City programs already in place, measures

and programs to reduce greenhouse gas emissions and facilitate transit-oriented development. All of the Land Use Element policies, as well as the others listed above, in the General Plan seek to maximize efficient use of resources, maintain a high quality of life, enhance job opportunities, promote sustainability, and facilitate access to transportation facilities. Policies related to historic resources are designed to protect and preserve recognized historic resources, and any facilities constructed or energy retrofits performed pursuant to the Regional Reduction Plan would be required to be consistent with those policies.

The Regional Reduction Plan does not propose any specific development. Under the GHG Performance Standard for New Development (PS-1) component the Regional Reduction Plan, the City could require new projects to quantify project-generated GHG emissions and adopt feasible reduction measures to reduce project emissions to a level that is a certain percent below BAU project emissions. PS-1 does not require project applicants to implement a pre-determined set of measures. It is anticipated such measures could include energy-efficient appliances and alternative energy sources, water conservation, landscaping, and site design. Any energy-efficiency or energy-generating facilities that would be constructed in new development would require consistency with the applicable specific plans. Thus, there would be no inconsistency with implementation of the Regional Reduction Plan.

Therefore, because the proposed Regional Reduction Plan furthers the goals of the identified land use plans and would not conflict with those plans, including the City's General Plan, it is consistent with these plans. This impact would be *less than significant*. No mitigation is required. Implementation of the proposed project would also ensure compliance with AB 32, which would be a benefit of the project.

Threshold	Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?
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The West Mojave Plan may be expanded to include non-federal land in the future, but does not apply to development in the City at this time. Compliance with the City's existing development review process would require surveys and mitigation for sensitive species, including those covered by the West Mojave Plan, such as the desert tortoise and Mohave ground squirrel. Because there are no local habitat conservation plans or natural community conservation plans that apply to the City of Adelanto, there would be no conflict, and, therefore, *no impact*.

## ■ Cumulative Impacts

The geographic context for land use impacts with respect to consistency with applicable land use plans is San Bernardino County, which assumes buildout to a horizon year of 2030. Implementation of the Regional Reduction Plan would not result in any inconsistencies with adopted plans that would, in turn, result in adverse environmental effects. As explained above, the Regional Reduction Plan is intended to further regional goals pertaining to reducing emissions, and the measures selected by Adelanto are consistent with the goals and policies of the City's General Plan. Therefore, there would be no cumulatively considerable contribution to potential conflicts with applicable plans, and this would be a *less-than-significant cumulative impact*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

———. 2010. *2008–2014 Housing Element*, March.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

Southern California Logistics Airport. 2008. *Southern California Logistics Airport, Victorville, California. Comprehensive Land Use Plan*, September.

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## 4.1.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a) and associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing mineral resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

Much of the planning area has sand and gravel resources and may have other precious metals in small quantities. There are no areas within the City limits that are classified as being used for the managed production of mineral resources and the General Plan does not identify lands for mineral resource protection.

### ■ Regulatory Framework

#### *Federal*

#### **United States Department of the Interior, Office of Surface Mining, Reclamation and Enforcement**

The Office of Surface Mining Reclamation and Enforcement (OSM) is a bureau within the United States Department of the Interior. OSM is responsible for establishing a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations, under which OSM is charged with balancing the nation's need for continued domestic coal production with protection of the environment. OSM was created in 1977 when Congress enacted the Surface Mining Control and Reclamation Act. OSM works with the State and Indian tribes to assure that citizens and the environment are protected during coal mining and that the land is restored to beneficial use when mining is finished. OSM and its partners are also responsible for reclaiming and restoring lands and water degraded by mining operations before 1977.

#### **Surface Mining Control and Reclamation Act**

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) is the primary federal law that regulates the environmental effects of coal mining in the United States. SMCRA created two programs: one for regulating active coal mines and a second for reclaiming abandoned mine lands. SMCRA also created the Office of Surface Mining, an agency within the Department of the Interior, to promulgate regulations, to fund state regulatory and reclamation efforts, and to ensure consistency among state regulatory programs. Under SMCRA, the federal government can approve a program, which gives the state the authority to regulate mining operations, if the state demonstrates that it has a law that is at least as strict as SMCRA, and that they have a regulatory agency with the wherewithal to operate the program. OSM has delegated authority to the California Department of Conservation for enforcement of SMCRA through California Public Resources Code (PRC) Sections 2710–2796.

## State

### California Department of Conservation

The California Department of Conservation provides services and information that promote environmental health, economic vitality, informed land-use decisions and sound management of our state's natural resources including mineral resources. The California Department of Conservation maintains information on mineral resources within the state through the California Geological Survey Mineral Resources Project. The California Department of Conservation regulates mining of mineral resources through the Office of mining Reclamation (OMR), which enforces the Surface Mining and Reclamation Act.

#### *Surface Mining and Reclamation Act*

The Surface Mining and Reclamation Act of 1975 (SMARA) (PRC Sections 2710–2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. PRC Section 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations. SMARA (PRC Chapter 9, Division 2) requires the State Mining and Geology Board to adopt state policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act (Government Code) and are found in California Code of Regulations Title 14, Division 2, Chapter 8, Subchapter 1.

## Local

### Adelanto General Plan

The General Plan recognizes the potential for managed production of mineral resources; however, it does not include any maps showing the locations of MRZs classified by the State.

The Adelanto General Plan policy applicable to mineral resources<sup>12</sup> is as follows:

- Policy NR 1.5** The City will restrict development in those areas which are determined to have significant reserves of natural resources, including gas, oil, and aggregate materials.

## ■ Project Impact Evaluation

### Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on mineral resources if it would do any of the following:

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<sup>12</sup> This policy is not a complete listing of all mineral resources policies contained in the General Plan; the policy that is most applicable to the proposed project is included here.

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan

### **Analytic Method**

There are no lands managed for mineral resources in Adelanto, and implementation of the Regional Reduction Plan in Adelanto would not result in the need for mineral resource production. There would be no impact; therefore, detailed analysis is not required.

### **Effects Not Found to Be Significant**

Threshold	Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
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There are no lands currently being managed or protected for mineral resource production in Adelanto. There would be *no impact*.

Threshold	Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?
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There are no lands currently being managed or protected for mineral resource production in Adelanto. There would be *no impact*.

### **■ Cumulative Impacts**

Implementation of the Regional Reduction Plan in Adelanto would not result in any impacts at the project level. Therefore, there would be *no cumulative impact*.

### **■ References**

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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## 4.1.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing noise were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### ***Noise Terminology and Effects***

Noise is commonly defined as unwanted sound. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Sound pressures in the environment have a wide range of values and the sound pressure level was developed as a convenience in describing this range as a logarithm of the sound pressure. To be consistent throughout the world, the sound pressure level is the logarithm of the ratio of the unknown sound pressure to an agreed upon reference quantity of the same kind. To account for the human ear's sensitivity to the pitch of different sounds, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA). Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is perceivable, while 1 to 2 dBA changes generally are not perceived.

A given level of noise may be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, the time of day during which the noise is experienced, and the activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep may be disturbed. Additionally, rest at night is a critical requirement in the recovery from exposure to high noise levels during the day. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. For example, some indices consider the 24-hour noise environment of a location by using a weighted average to estimate its habitability on a long term basis. Other measures consider portions of the day and evaluate the nearby activities affected by it as well as the noise sources.

A commonly used index for measuring community noise levels is the Community Noise Equivalent Level (CNEL). The CNEL weights the average noise level for the evening hours (from 7:00 PM to 10:00 PM) by 5 dB, and the late evening and early morning hours (from 10:00 PM to 7:00 AM) by 10 dB. The un-weighted daytime noise levels are combined with these weighted levels and averaged to obtain a CNEL value.

## **Noise Sources**

### **Vehicle Traffic**

The primary contributor to ambient noise in the planning area is traffic, particularly from major roadways such as U.S. Highway 395, Highway 18 (Palmdale Road), Rancho Road, Adelanto Road, and El Mirage Road. VVTA operates three bus routes in Adelanto, providing bus connections between shopping centers, public facilities, and residential areas. Noise from buses contributes to the noise environment.

### **Rail**

There are no passenger or freight rail operations in Adelanto that are a source of noise. The closest rail line is Amtrak, several miles east of Adelanto.

### **Stationary Sources**

Industrial areas in Adelanto are a source of noise. However, these are located away from the existing urban core area, and noise levels are considered minimal.

### **Airports**

There is one private airport and one private helipad in Adelanto. Adelanto Airport (52CL) is located near the intersection of Cactus Road and Beaver Road. The IPP Adelanto Helipad (CA12) is located at the Los Angeles Department of Water and Power (DWP) substation located south of Rancho Road, across the street from Adelanto Fire Department Station No. 322. Both of these facilities are privately owned and require permission prior to landing. The City has established an airport overlay for those areas (see Regulatory Setting, below).

The Southern California Logistics Airport (SCLA) is located in Victorville, just east of Adelanto Road/Air Base Road. Eastern portions of Adelanto are within the Comprehensive Airport Land Use Plan (CALUP) Compatibility Review Area 3.

## **Noise-Sensitive Receptors**

Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise, such as residential dwellings, hotels, motels, dormitories, hospitals, educational facilities, and libraries. Noise-sensitive receptors within the City include single- and multi-family residential, schools, parks, a library, medical facilities, and churches.

## **■ Regulatory Framework**

### **Federal**

#### **Federal Transit Administration**

The Federal Transit Administration (FTA) establishes noise impact criteria to be used in evaluating noise impacts from mass transit projects, including railroads. The noise level that would result from a proposed transit project's implementation is evaluated as having either a low, moderate or severe impact based on the existing noise level and sensitivity of the affected land use. Lands set aside for serenity and quiet are

considered the most sensitive land uses (Category 1), followed by residences and buildings where people normally sleep (Category 2), and institutional land uses with primarily daytime and evening use (Category 3).

## **State**

### **California Noise Control Act of 1973**

California Health and Safety Code Sections 46000 through 46080, known as the California Noise Control Act, finds that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

### **California Noise Insulation Standards**

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (California Code of Regulations Title 24, Part 2). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multi-family residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or  $L_{dn}$ ) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or  $L_{dn}$ ) of at least 45 dBA.

## **Regional**

### **Southern California Logistics Airport Comprehensive Land Use Plan**

The Southern California Logistics Airport is directly north of Adelanto, in Victorville. San Bernardino County and the cities of Adelanto and Victorville have adopted resolutions supporting a process where each local agency serves as the responsible agency for projects within the jurisdiction as it relates to land use planning and compatibility. Because the airport is located in Victorville, the City of Victorville has prepared the Comprehensive Land Use Plan (2008). The Federal Aviation Administration establishes a 65 dBA CNEL as the noise standard associated with aircraft noise for purposes of land use compatibility.

## **Local**

### **City of Adelanto Municipal Code**

Municipal Code Section 17.90.020(b) sets forth that the noise standards contained in General Plan Noise Element Table VIII-2 (Land Use Compatibility Guidelines Related to Noise Exposure) applies to land uses citywide and must be used to define acceptable and unacceptable noise levels.

Section 17.90.020(d) exempts construction noise during the hours 7:00 AM to dusk on weekdays. Construction noise on weekends or state holidays requires prior consent from the Building Official. Groundborne vibration standards are specified in Section 17.90.030.

The City has adopted regulations that pertain to wind and solar energy conversion systems (Municipal Code Chapter 17.80 [Special Use Standards]). Sections 17.80.060(e) and 17.80.070(c) address noise limits for wind and solar systems, respectively. No wind or solar energy conversion system is allowed to emit sounds that exceed 65 dB at any time, as measured from the property line.

Municipal Code Chapter 17.45 includes an Airport Park Overlay District to enhance safety to aviators and the general public by informing and notifying property owners of potential noise and safety issues generated from the Adelanto Airport Park, and to promote safe and harmonious development of those areas located within the Airport Park Overlay District as shown on the Adelanto General Plan Land Use/Zoning Map.

### **Adelanto General Plan**

The Adelanto General Plan policies that are applicable to noise and vibration<sup>13</sup> are as follows:

- Policy NS 1.2** Ensure that the design and improvement of future master planned roadways in the City are accomplished in a manner which minimizes noise impacts on adjacent educational facilities and adjoining neighborhoods.
- Policy NS 1.3** Ensure through the General Plan provisions and the objectives and policies contained therein, a compatible noise environment for all existing and future land uses within the City.
- Policy NS 1.12** Coordinate with State and Federal agencies to minimize transportation noise through transit way design, facility location or configuration modifications.

### **Interior and Exterior Noise Standards**

The City of noise level standards for all low-density, medium-density, and high-density residential uses are 65 dBA maximum for exterior and 45 dBA maximum for interior. This allows the City of Adelanto to ensure integrated planning compatibility between land uses and outdoor noise compatibility guidelines. The information is used to identify projects or activities, which may require special treatment to minimize noise exposure.

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<sup>13</sup> These policies are not a complete listing of all noise and vibration policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

## ■ Project Impact Evaluation

### ***Thresholds of Significance***

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on noise if it would do any of the following:

- Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels
- If within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels

### ***Analytic Method***

Baseline information to characterize the noise environment was compiled from readily available information, including the Adelanto General Plan. GHG reduction measures selected by the City of Adelanto in the Regional Reduction Plan were reviewed to determine which actions could result in changes that could affect noise levels in Adelanto or that could expose people to excessive noise or vibration.

### ***Effects Not Found to Be Significant***

Threshold	Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
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Implementation of the measures in the Regional Reduction Plan would augment existing City programs and policies with regard to transit-oriented development. Land use planning that encourages transit-oriented development along existing and planned transit corridors could increase the population who could be exposed to roadway noise. Other measures could include operation of new or expanded park-and-ride lots and pedestrian/bicycle network enhancements. Vehicles entering and exiting a park-and-ride lot could result in temporary increases in noise levels during commute hours, but, typically noise levels do not exceed community noise level standards. Pedestrian and bicycle network enhancements would not involve motorized travel and would not be expected to contribute to the noise environment.

The location or extent of new renewable energy-generating facilities structures such as solar arrays that would potentially be developed under the Regional Reduction Plan and their locations, are not specifically identified in the Regional Reduction Plan. However, the operation of solar arrays would not generate substantial noise, and City Municipal Code Section 17.80.070(c) requires that no solar energy conversion system emit sounds exceeding 65 decibels at any time, as measured from the property line. In some locations, energy retrofits on existing structures could reduce interior noise levels for certain types of buildings, as increased insulation and double- or triple-paned windows would also act to buffer exterior noise levels.

The General Plan provides land use noise compatibility information and specifies maximum interior and exterior noise standards for various land use types, and the City’s Municipal Code includes specific regulations to implement those policies. Compliance with Municipal Code Section 17.90.020(b) and Section 17.80.080(c), General Plan Land Use Compatibility Criteria (Noise Element Table VIII-2), and General Plan Policies NS 1.2, NS 1.3, and NS 1.12 would ensure that noise impacts to sensitive uses would be avoided or minimized. Each specific development project or energy-efficiency-related project would undergo evaluation prior to project approval for consistency with City’s General Plan policies and Municipal Code standards. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
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Installation of energy-efficiency retrofits and photovoltaic arrays on new development would involve the use of equipment that could be a source of vibration. However, it would be temporary and not substantial. All appropriate measures would be required per Adelanto Municipal Code Section 17.90.030 to reduce the effect of any groundborne vibration at a sensitive receptor. The Municipal Code also restricts construction activities that occur in close proximity to noise- or vibration-sensitive uses to specific days of the week and hours of the day. The operation of energy-saving features installed in existing and new development would not be a source of vibration. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
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An objective of the Regional Reduction Plan is to achieve GHG reductions consistent with the regional Sustainable Communities Strategy (SCS) by reducing vehicle miles traveled (VMT), which is a function of land use planning and associated transportation patterns. A reduction in VMT could result in fewer vehicle trips contributing to the ambient noise environment in Adelanto.

Land use planning that encourages transit-oriented development along existing and planned transit corridors would not be expected to increase ambient noise levels. Other measures could include operation of new or expanded park-and-ride lots and pedestrian/bicycle network improvements. Vehicles entering and exiting a park-and-ride lot could result in increases in noise levels during commute hours, but, typically noise this would not be expected to result in a substantial increase in ambient noise levels. Pedestrian and bicycle network enhancements would not involve motorized travel and would not

be expected to contribute to the noise environment on a permanent basis. As explained above, to ensure there would be no permanent increases in ambient noise levels that would be considered adverse, compliance with Municipal Code Section 17.90.020(b) and Section 17.80.070(c), General Plan Land Use Compatibility Criteria (Noise Element Table VIII-2), and General Plan Policies NS 1.2, NS 1.3, and NS 1.12 would ensure that noise impacts to sensitive uses would be avoided or minimized. Each specific development project or energy-efficiency-related project would undergo evaluation prior to project approval for consistency with City’s General Plan policies and Municipal Code standards. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
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Construction activities associated with energy-efficiency retrofits and installing renewable energy features (e.g., solar panels) in new residential and commercial development could be a temporary source of noise. The City limits construction activities to certain times, and exempts construction noise from noise standards (Municipal Code Section 17.90.030(d)).

Vehicles entering and exiting a park-and-ride lot could result in increases in noise levels during commute hours. While this would be periodic, this would not be expected to result in a substantial increase in ambient noise levels. Operation of energy-saving features in existing and new development (e.g., solar installations) would not be a substantial source of temporary or periodic noise. As explained above, to ensure there would be no temporary or periodic increases in ambient noise levels that would be considered adverse, compliance with Municipal Code Section 17.90.020(b) and Section 17.80.080(c), General Plan Land Use Compatibility Criteria (Noise Element Table VIII-2), and General Plan Policies NS 1.2, NS 1.3, and NS 1.12 would ensure that noise impacts to sensitive uses would be avoided or minimized. Each specific development project or energy-efficiency-related project would undergo evaluation prior to project approval for consistency with City’s General Plan policies and Municipal Code standards. Impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels?
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Southern California Logistics Airport (SCLA) is immediately east of Adelanto. The 65 dB noise contour extends into the eastern part of Adelanto. Implementation of the measures in the Regional Reduction Plan would augment existing City programs and policies with regard to transit-oriented development. Land use planning that encourages transit-oriented development along existing and planned transit corridors could increase the population who could be exposed to noise from airport operations. General Plan Policy ADD 3.1 restricts residential development within the boundaries of the Airport Development District (ADD) and within the 65 dBA CNEL noise contour. Further, it is the policy of the City of Adelanto to coordinate with the airport authorities to ensure that proposed land uses within the airport safety zones are consistent with the adopted master land use plans and land use compatibility plans for the SCLA as it pertains to noise. Impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels?
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There is one private airport and one private helipad in Adelanto. Adelanto Airport (52CL) is located near the intersection of Cactus Road and Beaver Road. The IPP Adelanto Helipad (CA12) is located at the LADWP substation located south of Rancho Road, across the street from Adelanto Fire Department Station No. 322. Both of these facilities are privately owned and require permission prior to landing. Operations at these airports are not a substantial source of noise, and there no elements of the Regional Reduction Plan that would be implemented by Adelanto that would expose people residing or working in the project area to excessive noise levels. Impacts would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

Cumulative development is expected to result in an increase in ambient noise levels in Adelanto, which would be primarily related to traffic noise. The Regional Reduction Plan seeks to reduce GHG emissions by reducing VMT, which could reduce traffic volumes and alter traffic/transit patterns that could, in turn, have some effect on regional noise conditions. Whether ambient noise or vibration levels would increase or decrease would be a function of transportation routes and future improvements and where transit-oriented development is located relative to noise sources.

Implementation of measures selected by Adelanto in the Regional Reduction Plan would not result in a cumulatively considerable contribution to those impacts. Potential noise impacts associated with implementation of Adelanto's measures would be reduced to less-than-significant levels through implementation of adopted policies and City ordinances. Therefore, implementation of the Regional Reduction Plan in Adelanto would not result in impacts that are cumulatively considerable, and this would be a *less-than-significant cumulative impact*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

Southern California Logistics Airport. 2008. *Southern California Logistics Airport, Victorville, California. Comprehensive Land Use Plan*, September.

### 4.1.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing population/housing were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

#### ■ Environmental Setting

The city had a population of 31,765 as of the 2010 census. In 2020 the population of Adelanto is expected to be 46,084, an increase of 48 percent over 2008, the highest increase in San Bernardino County. Employment in the area is expected to increase by 35 percent, also one of the highest increases in the county.

Table 4.1.13-1 (Socioeconomic Data for Adelanto) presents socioeconomic data for Adelanto, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

<b>Table 4.1.13-1 Socioeconomic Data for Adelanto</b>		
<i>Category</i>	<b>2008</b>	<b>2020</b>
Population	31,200	46,084
Housing (du)	7,670	11,900
Single-Family (du)	5,666	8,418
Multifamily (du)	2,004	3,482
Employment (jobs)	5,432	7,313
Agricultural (jobs)	0	0
Industrial (jobs)	2,329	2,942
Retail Commercial (jobs)	846	1,228
Non-Retail Commercial (jobs)	2,257	3,142
du = dwelling unit		

Housing growth has steadily increased over the past 10 years. The housing stock composition in Adelanto has remained stable since 2000. Single-family detached houses are the principal housing type in the City (73 percent) and multi-family units make up 20 percent of the total housing units. New development in Adelanto is expected to increase the housing stock further over the next 5 to 15 years. In 2000, Adelanto’s housing stock was predominantly owner-occupied, similar to the County as a whole.

## ■ Regulatory Framework

### **Federal**

#### **United States Department of Housing and Urban Development (HUD)**

The United States Department of Housing and Urban Development's (HUD) mission is to create strong, sustainable, inclusive communities and quality affordable homes within the United States. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes; utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business. HUD is responsible for enforcement of the federal Fair Housing Act.

#### **Federal Fair Housing Act**

In April 1968, at the urging of President Lyndon B. Johnson, Congress passed the federal Fair Housing Act (codified at 42 USC 3601–3619, penalties for violation at 42 USC 3631), Title VIII of the Civil Rights Act of 1968. The primary purpose of the Fair Housing Law of 1968 is to protect the buyer/renter of a dwelling from seller/landlord discrimination. Its primary prohibition makes it unlawful to refuse to sell, rent to, or negotiate with any person because of that person's inclusion in a protected class. The goal is a unitary housing market in which a person's background (as opposed to financial resources) does not arbitrarily restrict access. Calls for open housing were issued early in the twentieth century, but it was not until after World War II that concerted efforts to achieve it were undertaken.

### **State**

#### **California Housing Element Law**

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department estimates the relative share of California's projected population growth that would occur in each county in the state based on California Department of Finance (DOF) population projections and historical growth trends. Where there is a regional council of governments, the Housing and Community Development Department provides the regional housing need to the council. The California housing element law (Government Code Sections 65580–65589) requires that each City and County identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs. State law recognizes the vital role local governments play in the supply and affordability of housing.

#### **Senate Bill 375**

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. These regional targets are met within each region through the drafting, adoption, and implementation of

a sustainable community strategy (SCS). The SCS outlines the region's plan for combining transportation resources, such as roads and mass transit, with a realistic land use pattern, in order to meet a state target for reducing greenhouse gas emissions. The strategy must take into account the region's housing needs, transportation demands, and protection of resource and farm lands. The Metropolitan Planning Organization (MPO) for each region is responsible for drafting, adoption and implementation of the SCS for that region. SB 375 also modified Housing Element Law to achieve consistency between the land use pattern outlined in the SCS and Regional Housing Needs Assessment allocation. The legislation also substantially improved cities' and counties' accountability for carrying out their housing element plans. After submitting the SCS to the California Air Resources Board, the MPO allocates the Regional Housing Needs Assessment numbers to localities, based on the development pattern shown in the SCS and the existing allocation factors in housing element law. SB 375 extended the duration of housing elements from 5 to 8 years in order to align them with RTP deadlines. One housing element will be completed for every two RTPs. The bill also set the housing element due date at 18 months after the MPO estimates it will adopt the SCS. The MPO for this region is the Southern California Association of Governments (SCAG).

## **Regional**

### **Southern California Association of Governments (SCAG)**

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Southern California Association of Governments (SCAG) regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

### **Regional Transportation Plan**

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use and housing into transportation planning with an emphasis on transit and other nonvehicle transportation modes.

### **SCAG Compass Growth Visioning**

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region

■ **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region’s mobility, livability and prosperity.

**Local**

**Adelanto General Plan**

The Adelanto General Plan policies<sup>14</sup> that are applicable to housing in the context of implementing the Regional Reduction Plan in Adelanto are as follows:

- Policy LU 2.1** Encourage growth to occur according to the most efficient sequence from existing development to planned project areas.
- Policy LU 3.2** Offer a wide range of development opportunities for investors, developers, residents and businesses. The City encourages the development of mixed use projects, providing a balance of homes, jobs, and services.
- Policy RE 1.1** Encourage a variety of residential development to help support the growing employment base, including single family, multifamily, and apartment projects.
- Policy RE 1.2** Encourage higher density residential developments in areas of Adelanto that are located around commercial centers, and major urban nodes. Mixed Use projects are considered ideal, in that jobs, homes, and services are in close proximity.
- Policy RE 4.2** Encourage the development of residential housing to take place via tracts, or larger scale developments as opposed to single lot development scattered throughout the City.
- Policy HE 3** Encourage development of residential uses in strategic- proximity to employment centers and transportation routes. Implement the following criteria for evaluation: affordable housing; adequate public services and facilities; adjacent land uses which are compatible with residential development; and convenient access to: public transportation and freeways, employment centers, recreational facilities (passive and active), schools, and neighborhood commercial areas
- Policy AQ 1.5** The City will organize land uses wherever possible to create a desirable jobs/housing balance for the region.

2008-2014 Housing Element

The City recently adopted its 2008-2014 Housing Element, which contains the following additional policies concerning housing:

- Policy H.4.1** Encourage the maintenance and enhancement of the existing housing stock.
- Policy H.1.1** Provide a range of different housing types and unit sizes for varying income ranges and lifestyles.

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<sup>14</sup> These policies are not a complete listing of all housing policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

In addition, the 2008 Housing Element encourages energy conservation for all residential properties through weatherization upgrades, lighting, water heaters, and solar energy systems.

## ■ Project Impact Evaluation

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on population/housing if it would do any of the following:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere

### **Analytic Method**

The programs and measures contained in the Regional Reduction Plan were compared to applicable housing policies to determine if any inconsistency exists.

### **Effects Not Found to Be Significant**

Threshold	Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
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Implementation of the Regional Reduction Plan would not induce substantial population growth that could exceed local and regional growth projections either directly or indirectly. The project would not result in an increased demand for housing nor would it result in permanent employment-generating activities that would generate demand for housing. No extension of infrastructure is proposed. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
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The Regional Reduction Plan would not involve the development of any structures or facilities that would displace existing housing. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
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The Regional Reduction Plan would not involve the development of any structures or facilities that would displace people. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be *no impact*.

## ■ Cumulative Impacts

Because the Regional Reduction Plan would not result in significant impacts on population and housing at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, there would be *no impact*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

———. 2010. *2008–2014 Housing Element*, March.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

## 4.1.14 Public Services

This section of the EIR analyzes the potential environmental effects on public services (Fire Protection and Emergency Medical Response Services, Police Protection Services, schools, and parks) in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing public services were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### ***Fire Protection and Emergency Medical Response Services***

The City of Adelanto is served by the San Bernardino County Fire Department, Division 2. There are two fire stations in Adelanto: Station 321 (11741 Hardy Avenue) and Station 322 (10370 Rancho Road).

#### ***Police Protection Services***

Adelanto contracts with the San Bernardino County Sheriff's Department for law enforcement services. The Adelanto Sheriff's station is located at 11613 Bartlett Avenue. Response time is 5 minutes or less.

#### ***Schools***

There are ten elementary, six middle, and two public high schools in Adelanto. Several charter schools and private schools also provide educational opportunities within the City of Adelanto. There is one school district: Adelanto Elementary School District, which comprises thirteen traditional and specialized schools.

#### ***Libraries***

The San Bernardino County Library system operates a branch library in Adelanto and 11497 Bartlett Avenue.

### ■ Regulatory Framework

#### ***Federal***

#### **Federal Fire Protection Standards**

The National Fire Protection Association (NFPA) Code Section 1710 contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. The code also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident

planning. The code addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

## **State**

### **California Education Codes**

California Senate Bill 50 modifies Government Code Section 65995 to limit the acquisition of development fees by local agencies to three levels set in Government Code Sections 65995, 65995.5, and 65995.7 and prohibits a local agencies from denying a legislative or adjudicative action under CEQA involving real estate development on the basis of the inadequacy of school facilities.

## **Local**

### **City of Adelanto Municipal Code**

The City of Adelanto has adopted the 2010 Uniform Fire Code (Municipal Code Section 14.20.010). Municipal Code Chapter 16.04 regulates site and building development in accordance with applicable building and fire codes.

### **Adelanto General Plan**

The Adelanto General Plan policies that are applicable to public services<sup>15</sup> in the context of the Regional Reduction Plan implementation measures are as follows:

- Policy REC 1.1** The City will work with the Adelanto School District to jointly develop and use school property for recreational purposes.
- Policy REC 1.6** The City will maintain agreements with the Adelanto School District for joint use of selected school sites.
- Policy REC 1.11** The City will continue to promote joint use facilities with the Adelanto School District so that a portion of these facilities can also be used as parks.

## **■ Project Impact Evaluation**

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on public services if it would do any of the following:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

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<sup>15</sup> These policies are not a complete listing of all public services policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- > Fire protection and emergency medical response
- > Police protection
- > Schools
- > Libraries

### **Analytic Method**

The reduction measures selected by Adelanto in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in adverse environmental effects related to the provision of fire protection, emergency medical response, and police protection services or schools or libraries.

### **Effects Not Found to Be Significant**

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?
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Demand for fire protection and law enforcement services is generally based on population and land use changes that increase the number of facilities and structures requiring these services. None of the measures selected by Adelanto in the Regional Reduction Plan would increase resident population in the City; therefore, service ratios, response times, or performance objectives would not be affected. Implementation of the measures would not result in new or expanded facilities requiring fire protection or law enforcement services; therefore, there would be no demand for new or altered fire or police facilities, the construction of which could result in environmental impacts. Similarly, demand for schools and libraries is population-based. None of the measures selected by Adelanto in the Regional Reduction Plan would increase resident population in the City, requiring the need for new or expanded schools or libraries, the construction of which could result in environmental impacts. Therefore, there would be ***no impact***.

### **■ Cumulative Impacts**

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?
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Implementation of the Regional Reduction Plan measures in Hesperia would not result in any project-level impacts. Therefore, there would be ***no cumulative impacts***.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

———. 2013. City of Adelanto website. <http://www.ci.adelanto.ca.us>.

———. n.d. *City of Adelanto Municipal Code*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

## 4.1.15 Recreation

This section of the EIR analyzes the potential environmental effects on recreation in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b). Full reference-list entries for all cited materials are provided at the end of this section.

One comment letter stating that the Regional Reduction Plan should include a comprehensive regional bicycle path master plan was received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan. This section addresses bicycle network planning Adelanto.

### ■ Environmental Setting

#### ***Parks and Recreational Facilities***

The City of Adelanto maintains and operates five parks and recreation facilities totaling 31.36 acres, two that are joint use facilities shared with Adelanto Elementary School.

#### ***Regional Facilities***

The San Bernardino National Forest (SNBF), south of Hesperia, is the closest maintained national recreational area within the region. Nearby state parks include Saddleback Butte State Park to the northwest near Lancaster and Silverwood Lake State Recreation Area to the south. Mojave Narrows Regional Park in Victorville is the closest county park.

Other attractions near Adelanto include the Mirage Off-Road Vehicle Park and the High Desert Mavericks minor league baseball team, part of the Seattle Mariners franchise.

### ■ Regulatory Framework

#### ***Federal***

There are no federal regulations that are applicable to the provision of recreation, park, and trail facilities in Adelanto.

#### ***State***

#### ***Quimby Act***

The Quimby Act (California Government Code Section 66477) is state legislation that requires the dedication of land and/or fees for park and recreational purposes as a condition of approval of tentative map or parcel map. The Quimby Act establishes procedures that can be used by local jurisdictions to provide neighborhood and community parks and recreational facilities and services for new residential subdivisions.

## Regional

### San Bernardino County Regional Parks Division

The San Bernardino County Regional Parks is administered by the San Bernardino County Regional Parks Division and the San Bernardino County Regional Parks Advisory Commission. The San Bernardino County Regional Parks division operates the Mojave Narrows Regional Park.

## Local

### Adelanto Municipal Code

The Adelanto Municipal Code Title 17 identifies specific development standards for various land uses.

### Adelanto General Plan

The Adelanto General Plan policies that are applicable to recreational facilities<sup>16</sup> that include pedestrian and bicycle trail networks are as follows:

- Policy OPC 1.3** Encourage the location of parks adjacent to the Open Space/Drainage/Trails Network to foster linkage between recreational facilities.
- Policy OPC 3.1** Ensure that construction of all facilities in parks and open space areas comply with standards set forth in the Development Standards and Community Design Element.
- Policy REC 1.1** The City will work with the Adelanto School District to jointly develop and use school property for recreational purposes.
- Policy REC 1.11** The City will continue to promote joint use facilities with the Adelanto School District so that a portion of these facilities can also be used as parks.
- Policy REC 1.18** The City promotes the establishment of hiking and bicycle trails as part of the system.
- Policy REC 1.19** The City will, in developing a trails system, coordinate between various park facilities within the City, as well as with a regional trail system in the County. Linkage of park facilities via the open space corridors, is encouraged.
- Policy BIO 1.3** Maintain drainage courses and utility rights of way in open space uses that do not conflict with those needs, but provide an attractive open space for the community, such as linear parks, trails, etc.
- Policy BIO 1.11** The City will require the development of open space and recreation areas within all new residential developments as determined by the City.
- Policy BIO 1.12** The City shall designate, as may be appropriate, washes, drainage channels, utility easements and transportation rights of way as linear parkways. These linear parkways shall to the extent feasible, provide linkages and access to the other open space and recreational areas within the City.

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<sup>16</sup> These policies are not a complete listing of all recreational facilities policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

**Policy OS 1.2** The City will encourage the use of existing natural and manmade drainage channels to link proposed parks and recreational facilities via trails networks.

**Policy Safety 1.17** The City will preserve designated drainage channels and water courses such as creeks and river beds as resource management areas or linear parks and recreational trails, whenever possible.

## ■ Project Impact Evaluation

### Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on recreation if it would do any of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

### Analytic Method

The reduction measures selected by Adelanto in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in environmental effects on existing recreation facilities or through construction of new facilities.

### Effects Not Found to Be Significant

Threshold	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
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Demand for existing parks and recreational facilities is based on population. The Regional Reduction Plan would not increase resident population in the City; therefore, implementation of the GHG reduction measures would not affect the demand for and use of existing recreational facilities such that significant adverse environmental effects would occur. There would be *no impact*.

Threshold	Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?
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The Regional Reduction Plan does not include recreational facilities, but measure On-Road-1 encourages improvements to the pedestrian/bicycle network as a way to help reduce GHG emissions. One of the goals of the City's adopted General Plan (1994) is to take advantage of the availability of vacant land to incorporate parks and open space system throughout the City. This system would link all of the current and proposed parks locations together via an open space/trails network. This network would be designed in conjunction with the master planned drainage channels that flow through Adelanto. Among the many objectives of the General Plan, the City seeks to incorporate equestrian and bicycle parkways to

link the City's existing and future activity centers, and to main open space areas to assure that adequate linkage can be maintained between the City's activity centers, parks, and schools, creating an open space beltway throughout the City. Policies in the General Plan (e.g., Policy REC 1.18 and REC 1.19 and others listed above) are consistent with the Regional Reduction Plan goals concerning pedestrian/bicycle linkages.

Pedestrian and bicycle network trail improvements would result in construction, but the physical effects associated with construction (e.g., dust emissions and noise) would not be substantial because trail improvements generally have a small footprint and would be of limited duration. Trails that are constructed in biologically sensitive areas would be required to comply with City policies and applicable federal and state regulations (see Section 4.1.4 [Biological Resources]) to minimize potential effects on species and habitat. Therefore, impacts would be *less than significant*. No mitigation is required.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts on recreation facilities at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, *cumulative impacts would be less than significant*.

## ■ References

Adelanto, City of. 1994a. *City of Adelanto General Plan Update*, May.

———. 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.

———. 2011. *City of Adelanto 2008–2014 Housing Element Initial Study*, December.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

## 4.1.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the City of Adelanto from implementation of the Regional Reduction Plan. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b), the Southern California Association of Governments (SCAG) Regional Transportation Plan and SCS (2012), the SCAG Regional Comprehensive Plan (2009), the San Bernardino Associated Governments (SANBAG) Congestion Management Program [CMP] (2012), the SANBAG Passenger Rail Short-Range Transit Plan (2007), and the San Bernardino County Non-Motorized Transportation Plan (2011). Full reference-list entries for all cited materials are provided at the end of this section.

One comment letter stating that the Regional Reduction Plan should include a comprehensive regional bicycle path master plan was received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### ***Existing Transportation Network***

The City of Adelanto circulation system includes one state highway, an airport (air cargo only), and a system of arterial and local streets.

#### **Roadway Network**

The City of Adelanto has the following roadway classifications for local roadways within the City:

- **Proposed 395 Freeway** would accommodate six lanes of traffic. This proposed freeway would separate pass through traffic from local traffic. Currently, State Highway 395 accommodates two and four lanes of traffic providing thoroughfares through the City and functioning as a Major Arterial highway with high volumes of traffic passing through signaled and unsignaled intersections with cross traffic.
- **Proposed Super Arterials** would accommodate six lanes of traffic, with medians. If built, these facilities would be the principal thoroughfares connecting the City with the Interstate 15 Freeway (Proposed East/West Super Arterial) and the proposed 395 Freeway with the Airport Development District (Proposed El Mirage Expressway), and are intended to carry high traffic volumes.
- **Major Arterials** accommodate four lanes of traffic, with medians. They are also designed to carry high volumes of traffic intended to link State Highway 395 and Proposed Super Arterials with collector streets.
- **Major Collectors** are four-lane undivided roadways that connect local streets to arterials. These facilities are designed to carry lower volumes of traffic, provide access to major developments, and allow travel between areas of the City.
- **Local Streets** are two-lane streets designed to provide access to local neighborhoods and individual properties.

## **Transit**

### **Amtrak**

The Amtrak Southwest Chief passenger train regularly passes on the BNSF main railroad line several miles east of Adelanto. The train route travels from Los Angeles to Chicago, Illinois. The nearest Amtrak station is located in the City of Victorville. The station includes a bus stop and a Park and Ride, facilitating use of Amtrak by commuters from Adelanto

### **Bus Transit**

The Victor Valley Transit Authority (VVTA) provides the local bus service for the City and adjacent communities of Phelan, Hesperia, Apple Valley, Victorville, and San Bernardino County. VVTA operates three bus routes in Adelanto, providing bus connections between shopping centers, public facilities, and residential areas.

- **Route 31**—Adelanto–Victorville (Palmdale Road)
- **Route 32**—Adelanto–Victorville North (Air Expressway, Village, Roy Rogers, Palmdale Road)
- **Route 33**—Adelanto Circulator (El Mirage, Chamberlaine, Air Expressway, Palmdale Road)

## ■ **Regulatory Framework**

### **Federal**

#### **United States Department of Transportation**

The United States Department of Transportation (USDOT) oversees federal highway, air, railroad, and maritime and other transportation administration functions.

The Federal Highway Administration (FHWA) is an agency within the USDOT that supports State and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program).

The Federal Transit Administration (FTA) is an agency within the USDOT that provides financial and technical assistance to local public transit systems. The FTA is headed by an Administrator who is appointed by the President of the United States and functions through a Washington, D.C. headquarters office and ten regional offices which assist local transit agencies throughout the United States.

The Federal Aviation Administration (FAA) is an agency within the USDOT that provides oversight and assistance to State and local airport authorities in the safety and improvements at airports throughout the United States. The FAA also provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate airport compatibility planning and implementation programs.

## **State**

### **California Department of Transportation**

The California Department of Transportation (Caltrans) manages the state highway system and freeway lanes, provides intercity rail services, permits of public-use airports and special-use hospital heliports, and works with local agencies. Caltrans carries out its mission of improving mobility across California with six primary programs: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration and the Equipment Service Center.

### **California Air Resources Board**

The California Air Resources Board, a part of the California EPA (Cal/EPA) is responsible for the coordination and administration of both federal and state air pollution control programs within California. With respect to transportation, the California Air Resources Board (ARB) reviews and approves metropolitan planning organizations' (MPO) implementation of Senate Bill 375 (SB 375) within each region of California.

### **Senate Bill 375**

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the MPOs; the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule.

## **Regional**

### **Southern California Association of Governments (SCAG)**

SCAG is the designated MPO for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

### **Regional Comprehensive Plan**

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional

challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.
- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM<sub>10</sub>, PM<sub>2.5</sub>, ultrafine), and carbon monoxide

## Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 RTP and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's

SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

### **SCAG Compass Growth Visioning**

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

### **San Bernardino Associated Governments (SANBAG)**

SANBAG is an association of local San Bernardino County governments. It is the MPO for the county, with policy makers consisting of mayors, council members, and county supervisors, and the funding agency for the county's transit systems, which include Omnitrans, Victor Valley Transit Authority, Morongo Basin Transit Authority, Mountain Area Regional Transit Authority, Barstow Area Transport, and Needles Area Transit. SANBAG administers the CMP, provides transit planning, and regional nonmotorized transportation infrastructure and regional bicycle and pedestrian path network planning within San Bernardino County

### **Congestion Management Program**

The CMP defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The policies and technical information contained in this

document are subject to ongoing review, with updates required each two years. The last update of the CMP was completed in 2012.

### **Passenger Rail Short-Range Transit Plan**

SANBAG, acting as the County Transportation Commission, requires each transit agency to prepare a multi-year operating and capital plan every other year. This Short-Range Transit Plan provides basic information about the transit services provided in San Bernardino County, including performance, needs, deficiencies and a proposed plan for operations and capital investments covering the next 5 years. The San Bernardino County Passenger Rail SRTP reflects SANBAG's share of the Metrolink operating and capital plan, as well as the future Redlands Passenger Rail and Gold Line Extension projects.

### **San Bernardino County Non-Motorized Transportation Plan**

The Non-Motorized Transportation Plan provides the planning for interconnected cycling and walking system within communities in San Bernardino County. The Plan is for the development of a comprehensive system of cycling facilities, pathways, and trails. As of 2011, the combined total of centerline miles of bicycle infrastructure for all jurisdictions is 468 miles. This represents an eight-fold growth in the County's bicycle infrastructure. The challenge ahead involves developing a cohesive, integrated plan and identifying sources of funds to implement that plan. This is the goal of the San Bernardino County Non-Motorized Transportation Plan (NMTP). The NMTP of 2001 and the 2006 update have taken us part way there. The 2011 update identifies a comprehensive network, with a focus on the bicycle system. The Plan satisfies the state requirements of a Bicycle Transportation Plan (BTP) for purposes of Caltrans Bicycle Transportation Account (BTA) funding.

## **Local**

### **Adelanto General Plan**

The Adelanto General Plan contains the following policies regarding transportation, mobility and traffic<sup>17</sup>:

- |                     |  |
|---------------------|--|
| <b>Policy CIR 1</b> | Improve the circulation system so that it accommodates the projected growth of the City/community.                                     |
| <b>Policy CIR 3</b> | Provide adequate capacity of roadways to handle buildout of the entire City.   |
| <b>Policy CIR 4</b> | Provide safe, durable and aesthetic roadway construction design that will provide a long-lasting surface for vehicular transportation. |
| <b>Policy CIR 5</b> | Improve access/visibility to Adelanto's primary commercial business and industrial sectors, including a new major airport.             |
| <b>Policy CIR 6</b> | Integrate street and signage design criteria.  |
| <b>Policy CIR 7</b> | Improve east/west and north/south circulation through Adelanto.  |
| <b>Policy CIR 8</b> | Coordinate the transportation master plan for Adelanto and surrounding communities.  |

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<sup>17</sup> These policies are not a complete listing of all transportation, mobility and traffic policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

**Policy CIR 9** Provide a long-range outlook for the incorporation of mass transit, conventional rail, high speed rail and air transportation needs of the High Desert and Southern California.

### City of Adelanto Intersection Analysis Criteria

The City of Adelanto requires that morning and evening peak-hour turning movements use the methodology found in the Highway Capacity Manual (HCM) in determining the level of service (LOS) at intersections. The LOS value is determined based upon the volume to capacity (V/C) of turning movements. A V/C ratio of 1.00 means that the volume of traffic has matched 100 percent of the intersection capacity. Generally speaking, a V/C ratio such that the volume equals 80 percent (0.80) or less of the capacity constitutes stable traffic flow with only minor backups or queues of vehicles developing behind turning vehicles. Table 4.1.16-1 (Intersection Level of Service [LOS] Definitions) summarizes the LOS definitions in the HCM.

Table 4.1.16-1 Intersection Level of Service (LOS) Definitions		
LOS	Interpretation	Volume to Capacity (V/C) Ratio
A	There are no streets that are fully loaded, and few are close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	0.00–0.60
B	Represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted within platoons of vehicles.	0.61–0.70
C	Stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasional drivers may have to wait through more than one red signal intersection, and backups may develop behind turning vehicles.	0.71–0.80
D	Encompasses a zone of increasing restriction approaching instability. Delays to approaching vehicles may be substantial during short peaks with the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.	0.81–0.90
E	Represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00), there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).	0.91–1.00
F	Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable because full utilization of the approach may be prevented by outside conditions.	>1.00

SOURCE: HCM (2000).

## ■ Project Impact Evaluation

### Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on transportation/traffic if it would do any of the following:

- 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 nonmotorized 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 an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

### **Analytic Method**

The programs and measures contained in the Regional Reduction Plan were compared to applicable transportation plans and transportation policies to determine if any inconsistency exists. These plans include the General Plan, SCAG's RTP with an adopted SCS, the Compass Growth Visioning, SANBAG CMP, and the San Bernardino County Non-Motorized Transportation Plan. The Regional Reduction Plan was also reviewed for potential traffic impacts that could result during implementation of the reduction measures.

### **Effects Not Found to Be Significant**

Threshold	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 nonmotorized 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?
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Implementation of the Regional Reduction Plan will reduce GHG emissions and vehicle miles traveled (VMT) associated with on road passenger vehicles within the City. The Regional Reduction Plan does this by building upon and supporting the General Plan policies related to mobility. General Plan Policies CIR 6 and CIR 7 (Transit) ensure VMT reduction through greater transit opportunities and ridership. The Regional Reduction Plan reduction measure Transportation-1 (Sustainable Communities Strategy) furthers these policies of transit within the city. In addition the Regional Reduction Plan reduction measure Transportation-1 (Sustainable Communities Strategy) promotes nonmotorized travel by focusing on a pedestrian and bicycle path network connecting land uses within the City. The Regional Reduction Plan also implements and supports various regional transportation planning efforts in the City including the SCS in the SCAG RTP, The SCAG Compass Growth Visioning, and the San Bernardino County Non-Motorized Transportation Plan (SANBAG 2011). Transit and nonmotorized transportation infrastructure built on all roadways, including CMP designated roadways, require review by City Planning

and Traffic Engineering staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials. Therefore, the Regional Reduction Plan implements and furthers the goals of the applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel. Further, because of City review of transit and nonmotorized infrastructure to ensure that these improvements do not negatively impact the traffic flow on roadways, the implementation of the Regional Reduction Plan will not conflict with the level of effectiveness for the performance of intersections, roadways, highways and freeways set by the City, the CMP and Caltrans. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
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The CMP defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The last update of the CMP was completed by SANBAG in 2012. Implementation of the Regional Reduction Plan may require transit or nonmotorized transportation infrastructure to be built on some CMP roadways. Transit and nonmotorized transportation infrastructure built on all roadways, including CMP designated roadways, require review by City Planning and Traffic Engineering staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
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The Regional Reduction Plan would not result in changes in air traffic patterns through an increase in traffic levels or a change in location. As such, no safety risks would occur. There would be *no impact*.

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
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The proposed project does not include facilities that would substantially increase hazards, nor would it construct incompatible uses. Energy-producing facilities needed for implementation of the Regional Reduction Plan would consist of solar arrays or wind turbines on rooftops of new or renovated buildings, adjacent to structures, or in open spaces. Appropriate setbacks would be required as specified in the Municipal Code to ensure there would be no increase in hazards to vehicles as a result of implementation of the proposed project. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in inadequate emergency access?
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The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle

trips and vehicle miles traveled to reduce transportation related emissions, waste diversion and water conservation programs. None of the reduction measures would alter emergency access or evacuation plans. Improvements to transit, bicycle, and pedestrian infrastructure along roadways that would serve as emergency access and evacuation within the City would be reviewed by the City Planning Department to ensure adequate ingress and egress along these roadways. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?
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As described above, the Regional reduces transportation related GHG emissions by furthering the policies, plans and programs for public transit, bicycle and pedestrian facilities. In particular the Regional Reduction Plan implements pedestrian and bicycle infrastructure meant to improve the bicycle and pedestrian circulation system; and furthers to goals of the San Bernardino County Non-Motorized Transportation Plan. In addition the Regional Reduction Plan implements the SCS in the SCAG RTP, and the General Plan Policies CIR 5 and CIR 6 meant to improve the public transit system in the City. Transit and nonmotorized transportation infrastructure built on all roadways require review by City Planning and Traffic Engineering staff review and approval to ensure that performance standards and safety are not impacted negatively. Therefore, the impact would be ***less than significant***. No mitigation is required.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not create significant transportation impacts at a project level, implementation of the Regional Reduction Plan will not create impacts to transportation that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

## ■ References

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## 4.1.17 Utilities/Service Systems

This section of the EIR analyzes the potential environmental effects on utilities in the City of Adelanto from implementation of the Regional Reduction Plan, including potable water supplies and service systems, wastewater collection and treatment, solid waste, electricity, natural gas, and telephone and communications. Data for this section were taken from Adelanto General Plan (1994a), associated environmental impact report (1994b), the 2008 Housing Element Initial Study, and the City of Adelanto 2010 Urban Water Management Plan (UWMP). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing utilities or service systems were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

### ■ Environmental Setting

#### ***Potable Water Supplies and Service Systems***

The City of Adelanto sits on the Alto subarea of the Mojave River Basin, located in the Mojave River watershed. The City obtains all of its water supply from local groundwater in the Mojave River Basin. The Adelanto Water Department, through the Adelanto Public Utility Authority (APUA), is charged with providing safe, good-quality, uninterrupted water at a reasonable pressure, to meet health and fire protection needs of that portion of the city served by the public water system. The Department must operate and maintain the water utility system in accordance with the City of Adelanto's ordinances and policies and the U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Act.

#### **Local Water Supply and Reliability**

All water in the Adelanto Water Department service area is pumped from groundwater wells accessing the Mojave River Groundwater Basin. During normal years, the City obtains all of its water supply from the local groundwater aquifer through its wells. The City does not have any surface water diversion facilities, desalination facilities, or recycled water facilities. Since the City is not located near the ocean, desalination is not a practical or economically feasible source of water. During normal water system operation, there are no transfer exchanges of water within the City's service area. However, the City has two available emergency interties, both with the Victorville Water District (VWD). One intertie is a two-way connection from which Adelanto and VWD can both obtain and provide water. The second intertie only allows one way flow from VWD to Adelanto. Adelanto only uses these interties on rare occasions with the last significant use coming in 2008 when it was used to fill the City's new 5-million-gallon (MG) reservoir. The City's total estimated potable water system production capacity is approximately 4,728 gallons per minute (gpm) (Adelanto 2011b). The City lies within an adjudicated basin (1996, Judgment from the Riverside County Superior Court), which is managed by a Watermaster. The Mojave Water Agency (MWA) was appointed by the Court as the Watermaster. As part of its responsibilities, the Watermaster establishes a Base Annual Production (BAP) and a Free Production Allowance (FAP) for each water purveyor in the Mojave Basin. Adelanto's BAP and FPA are 4,366 acre-feet per year (afy) and 2,620 afy, respectively (the current FPA for Adelanto is set at 60 percent of the BAP). The City is entitled

to pump more than 2,620 afy if it purchases replacement water in the amount of the excess pumped over and above the FPA at a current cost of \$395 per acre-foot (Adelanto 2011b).

## **Water Distribution Systems**

The City has nine currently active potable groundwater wells, one nonpotable well and seven inactive wells. The City's active wells vary in depth from 39 feet to 569 feet, with production of the potable water wells varying from 181 gallons per minute (gpm) to 1,074 gpm. The total estimated potable water system production capacity is approximately 4,728 gpm. Some of the current inactive wells may be returned to service in future years. All wells are located within the City of Adelanto accessing the Mojave River Groundwater Basin. The water system delivers water to three pressure zones and consists of the aforementioned wells, transmission and distribution pipelines, booster stations and reservoirs. These facilities include (Adelanto 2011b):

- Approximately 113 miles of transmission and distribution mains ranging in diameter from 6- to 24 inches.
- Nine active potable water wells with a total pumping capacity of 4,728 gpm. The City also has seven wells, which are currently inactive, but some of which may be returned to service in future years. These totals include two wells rehabilitated since 2007 and two new wells drilled in 2005 and 2008.
- Seven welded steel tanks ranging in size from 0.75 MG to 5 MG with a total capacity of 21.75 MG.
- Four booster stations which pump water from lower to upper pressure zones.
- Four pressure reducing stations, which transfer water from upper to lower pressure zones.
- Two emergency interties with the Victorville Water District.

The City of Adelanto does not currently use recycled water. However, the City is currently upgrading its 1.5 million gallon per day (mgd) wastewater treatment plant to 4.0 mgd. The upgraded plant will produce treated water meeting California's Title 22 requirements, which can be used for irrigation of lawns, public parks and other greenbelt areas. According to the City's 2007 Sewer Master Plan, the wastewater treatment plant will ultimately be upgraded to a capacity of 8.0 mgd when the City nears build-out (Adelanto 2011b).

## **Wastewater Collection and Treatment**

The Adelanto Water Department, through the APUA, is charged by the State of California with providing wastewater treatment consistent with requirements set forth in the Waste Discharge Requirements for the residents and customers of the City of Adelanto. The City of Adelanto is currently the owner and operator of their own sewer treatment plant and associated sewer pipeline facilities. The City's sewer system includes approximately 33.5 miles of gravity sewer lines, one lift station, associated force mains and an existing 1.5 mgd wastewater treatment plant. There are also approximately 775 septic tank systems in the northern end of the City's service area. These septic systems might be connected to the City sewer system in the future (Adelanto 2011b). Current flow estimates indicate that existing development within the City generates effluent in excess of the City's treatment capacity. The City is

currently constructing a 2.5 mgd upgrade that will increase wastewater treatment capabilities to 4.0 mgd and produce treated water that can be used for lawn/public parks irrigation, construction and dust control and other beneficial uses (Adelanto 2010).

### **Solid Waste**

The City of Adelanto has adopted the San Bernardino County Solid Waste Management Plan. This is in accordance with California Government Code Section 65302 that requires solid waste management to be addressed in a City's adopted General Plan and that it must be consistent with the goals of the adopted San Bernardino County Waste Management Plan (Adelanto 2010a). The solid waste collection and recycling programs for the City of Adelanto is provided by AVCO Disposal, an affiliate of Burrtec Waste Industries, Inc. The City of Adelanto requires weekly trash collection service for all residential and commercial properties through their contracted waste hauler, AVCO Disposal. AVCO Disposal provides four residential curbside large or bulky item collections (maximum of five items per collection) during a 12-month period at no extra charge. Large or bulky items include: scrap metal, wood, old appliances, furniture, televisions, computer monitor, refrigerator or freezer, tree branches, mattresses, tires (limit two), etc. AVCO collects electronic waste such as computer monitors and televisions or anything with a cord free of charge with prior arrangements. Residential waste collection in Adelanto is disposed of in regional landfills. Adelanto is served by a number of landfills with Victorville Sanitary Landfill (36-AA-0045) as the City's primary solid waste disposal site. Victorville Sanitary Landfill's capacity is 83,200,000 cubic yards, with a remaining capacity of 82,200,000 cubic yards (as of the year 2000). Victorville Sanitary Landfill closure date is scheduled to close in October 2047. Considering that the Victorville SLF has over 98 percent of its capacity remaining, sufficient capacity to serve the solid waste disposal needs of any potential future residential development is anticipated (Adelanto 2011a).

### **Electricity**

Electricity is provided to the City by Southern California Edison (SCE). SCE's transmission system includes 500 and 220 kilovolt (kV) transmission lines, which are generally reduced to 66 kV transmissions at transformers at substations. SCE has forecast energy demands for its service area to reach 118,497 gigawatt hours by 2016 (CEC 2007). Energy consumption per capita in 2006 for the SCE area is about 7,300 kilowatt hours. This is forecast to remain constant through 2016 (CEC 2007).

### **Natural Gas**

The Southern California Gas Company (TGC) provides natural gas service to the City of Adelanto. TGC has gas mains throughout urbanized areas of the City.

### **Telephone and Communications**

Communication services and telephone, mobile phone, cable, and internet services, are provided by private companies in the City of Adelanto, including Verizon Communications, AT&T, and Time Warner Telecommunications. Cable service is provided to the City by local cable franchises, including Time Warner Cable, Comcast Cable, Cox Cable, and Charter Cable. Installation of cable services is provided by these private companies and supported by service fees.

For Internet service, transmission can be obtained through the phone lines for dial-up coverage or by broadband providers. Most Internet service providers are regulated by the California Public Utilities Commission. Broadband providers supply Internet services through cable lines or through Ethernet, a bundling of local area networks that are transmitted by fiber optics (DSL). Like cell phones, the Internet can also be provided through wireless connections. Infrastructure to support these services is therefore run over the associated local telephone and cable service provider lines.

## ■ **Regulatory Framework**

Utilities within the City of Adelanto tend to grow proportionally with the population. The following discussion of regulations helps to understand how public utilities are evaluated.

### **Federal**

#### **Potable Water Supplies and Service Systems**

##### *Safe Drinking Water Act*

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals).

#### **Wastewater Collection and Treatment**

There are no federal regulations applicable to wastewater collection and treatment.

#### **Solid Waste**

There are no federal regulations applicable to wastewater collection and treatment.

#### **Electricity and Natural Gas**

##### *Federal Energy Regulatory Commission (FERC)*

The Federal Energy Regulatory Commission (FERC) is the United States federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas (LNG) terminals, interstate natural gas pipelines and nonfederal hydropower projects.

#### **Telephone and Communications**

##### *Federal Communications Commission (FCC)*

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite and cable in all 50 states, the District of Columbia and U.S. territories. It was established by the Communications Act of 1934 and operates as an independent U.S. government

agency overseen by Congress. Primary responsibilities of the FCC include promoting competition in broadband communications while maintaining the quality and integrity of the signal reaching the public, and ensuring broad access to telecommunications by the public even in rural areas of the United States. The FCC has oversight over telecommunications and media regulations in the United States.

## **State**

### **Potable Water Supplies and Service Systems**

#### *California Code of Regulations Title 22, Chapter 15 (Water Quality General Requirements)*

California Code of Regulations (CCR) Title 22, Chapter 15 requires general water quality standards for water and wastewater discharge. The law ensures that pathogens and other contamination do not enter surface water or groundwater supplies within the state.

#### *California Health and Safety Code Article 1 (Pure and Safe Drinking Water)*

Article 1 of the California Health and Safety Code (Sections 116270-) was established a drinking water regulatory program within the Department of Health Services and provide drinking water standards for all water purveyors and distribution systems within the state. The law also requires regular sampling and record keeping of water supplies to ensure that potable water supplies are meeting the standards.

#### *Senate Bills 610 and 210 Water Supply Assessment and Planning*

To assist water suppliers, cities, and counties in integrated water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers and cities and counties.

Both statutes require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, Water Supply Assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912[a]) subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

A WSA is required for any project if it is a residential development of 500 units or more; a shopping center or business establishment project employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 sf of floor space; or an industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or

having more than 650,000 sf of floor area. Individual development projects implemented under the Proposed Land Use Plan would be required to prepare a WSA if they meet these requirements.

### *California Water Code Sections 10610–10656*

In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 repeatedly identify the UWMP as a planning document that, if properly prepared, can be used by a water supplier to meet the standards set forth in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes. UWMPs serve as important source documents for cities and counties as they update their General Plan. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent. The City of Adelanto UWMP is a foundational document for compliance with both SB 610 and SB 221.

## **Wastewater Collection and Treatment**

There are no state regulations applicable to wastewater collection and treatment.

## **Solid Waste**

### *Assembly Bill 939 (Integrated Waste Management Act)*

Assembly Bill (AB) 939 (Chapter 1095, Statutes of 1989), the Integrated Waste Management Act, requires, among other things, every California city and county to divert 50 percent of its waste from landfills by the year 2000. In addition, AB 939 requires each county and each city within the county to prepare a Source Reduction and Recycling Element for its jurisdiction, identifying waste characterization, source reduction, recycling, composting, solid waste facility capacity, education and public information, funding, special waste (asbestos, sewage sludge, etc.), and household hazardous waste, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction that cannot be reduced or recycled for a 15-year period.

## **Electricity and Natural Gas**

### *CALGreen Building Code*

The City Council of the City of Adelanto hereby adopts by reference the California Code of Regulations Title 24, Part 11, known and designated as the California Green Building Code, 2010 Edition. CCR Title 24, Part 11 (California's Green Building Standard Code) (CALGreen), was adopted in 2010 and went into effect January 1, 2011. CALGreen is the first statewide mandatory green building code and significantly raises the minimum environmental standards for construction of new buildings in California. The mandatory provisions in CALGreen will reduce the use of volatile organic compounds (VOC) emitting materials, strengthen water conservation, and require construction waste recycling.

### *California Energy Commission (CEC)*

The California Energy Commission (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974 the CEC has six basic responsibilities in setting state energy policy. These are:

- Forecasting Energy needs within the state
- Promoting energy efficiency and conservation by setting the appliance and building efficiency standards for the state of California
- Supporting energy research that advances energy science and technology, energy technology development, and demonstration projects
- Licensing all thermal electric power plants of 50 megawatts or larger
- Planning for and directing State responses to energy emergencies

### **Telephone and Communications**

There are no state regulations applicable to telephone and communications.

### **Regional**

#### **Potable Water Supplies and Service Systems**

##### *Mojave Water Agency Groundwater Management Program*

In February 2005, MWA formally adopted its 2004 Regional Water Management Plan Update (Regional WMP), which also serves as the Ground Water Management Plan (GWMP). The 2004 Regional WMP both complements and formalizes a number of existing water supply and water resource planning and management activities in the MWA service area that overlies the Alto subarea of the Mojave River Groundwater Basin and several groundwater basins, as defined by DWR in Bulletin 118.

##### *Water Quality Control Plan for the Lahontan Region*

The Water Quality Control Plan for the Lahontan Region (Basin Plan) is the basis for the Regional Board's regulatory program. It sets forth water quality standards for the surface and ground waters of the Region, which include both designated beneficial uses of water and the narrative and numerical objectives which must be maintained or attained to protect those uses. It identifies general types of water quality problems, which can threaten beneficial uses in the Region. It then identifies required or recommended control measures for these problems. This Plan summarizes applicable provisions of separate state Board and Regional Board planning and policy documents (e.g., the Regional Board waiver policy), and of water quality management plans adopted by other federal, state, and regional agencies. This Plan also summarizes past and present water quality monitoring programs, and identifies monitoring activities, which should be carried out to provide the basis for future Basin Plan updates and for waste discharge requirements or conditional waivers. This Basin Plan will also be used by other agencies in their permitting and resource management activities. The Regional Board adopted the most recent amendments in November 2010 (CRWQCB 2010).

## Wastewater Collection and Treatment

### *Water Quality Control Plan for the Lahontan Region*

As described previously, this Plan summarizes applicable provisions of separate state Board and Regional Board planning and policy documents (e.g., the Regional Board waiver policy), and of water quality management plans adopted by other federal, state, and regional agencies. This Plan also summarizes past and present water quality monitoring programs, and identifies monitoring activities, which should be carried out to provide the basis for future Basin Plan updates and for waste discharge requirements or conditional waivers.

## Solid Waste

### *County of San Bernardino Solid Waste Management Division (SWMD)*

The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the County of San Bernardino's solid waste disposal system which consists of five regional landfills and nine transfer stations. SWMD administers the County's solid waste handling franchise program and the refuse collection permit program which authorizes and regulates trash collection by private haulers.

### *San Bernardino Countywide Integrated Waste Management Plan*

Pursuant to the California Integrated Waste Management Act of 1989 (AB 939), the County prepares the Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The Plan addresses source reduction and recycling, household hazardous wastes and nondisposal facilities such as transfer stations, material recovery facilities and composting facilities. The goals and policies that guide facilities siting and other features of the Countywide Siting Element are as follows:

- Comply with regulations and standards
- Minimize environmental impacts and nuisances
- Eliminate known disposal of Households Hazardous Wastes at landfills
- Ensure long term disposal capacity
- Maximize cost-effectiveness and convenience
- Promote community awareness
- Consider regional approaches that are mutually convenient and beneficial
- Prevent solid waste facilities within incompatible land use areas
- Protect existing facilities from encroachment of incompatible land uses
- Maintain an integrated waste management system based on the AB 939 waste management hierarchy

Since 1996, the County has worked to consolidate landfills as part of its strategic plan. The County has consolidated active landfills from seventeen to six with an ultimate goal of operating only five facilities.

Therefore, no future landfills are currently planned, although Landers, Colton and San Timoteo landfills have been identified as candidates for potential expansion.

The Plan is designed to reach the state's 50 percent source reduction mandate by setting goals and policies profiling the County's current solid waste stream and strategies for continued waste reduction. Cities within the County are required to implement their own integrated solid waste management planning, implementation, monitoring, public information, budgeting and enforcement in coordination with the County. As noted earlier, the City supports the County's IWMP through a variety of source reduction, recycling and other waste diversion measures.

## **Electricity and Natural Gas**

### *Southern California Association of Governments (SCAG)*

SCAG's Energy Planning Program focusing on renewable energy projects and energy efficiency enable the region to support state and federal energy goals while growing in accordance with SCAG's adopted plans, such as the Regional Transportation Plan and Sustainable Communities Strategy, Compass Growth Vision, and Regional Comprehensive Plan.

## **Telephone and Communications**

There are no regional regulations applicable to telephone and communications.

## **Local**

### **Potable Water Supplies and Service Systems**

#### *Adelanto Master Plan of Drainage*

In 1992, the City of Adelanto updated its existing 1985 Master Plan of Drainage (MPOD), using the 1986 San Bernardino County Hydrology Manual. The new manual utilizes substantially different procedures and assumptions, therefore significantly different peak flow rates were anticipated. The Master Plan update was necessary prior to beginning design of new drainage channels. The imminent growth in the City calls for the need for not only the update of the Master Plan in the existing development area, but rethinking the prior assumptions of very low or no development in other portions of the City. The drainage study proposes regional systems to carry storm runoff through the incorporated area of the City without having negative impacts on existing natural drainage systems.

#### *Adelanto Urban Water Management Plan*

A UWMP prepared by a water purveyor documents the availability of an appropriate level of reliability of water service sufficient to meet the needs of various categories of customers during normal, single dry and multiple dry years. Having such a long-term reliable supply of water is essential to protect the productivity of California's businesses and economic climate. The California Water Management Planning Act of 1983 (Act) as amended, requires urban water suppliers to develop an UWMP every five years in the years ending in zero and five. The City of Adelanto 2010 UWMP was adopted by resolution of the APUA on June 22, 2011, following a public hearing. Development of the UWMP was led by the Adelanto Water Department through the APUA. The APUA is charged with providing safe, good

quality, uninterrupted water at a reasonable pressure, to meet health and fire protection needs of that portion of the city served by the public water system. The APUA staff coordinated with the City Planning Department and the City Clerk in development, distribution and adoption of the plan.

### *City of Adelanto Water Standards*

In 2006, the APUA published standard specifications for the furnishing and the construction of water facilities in Adelanto. The City Engineer shall decide within the provisions of the specification, all concerns regarding the quality or acceptance of materials furnished and work performed. The standards specify regulations that apply to pipeline materials; excavation, trenching, and backfill; pipeline installation; pipeline field tests; and pavement replacement.

### *City of Adelanto Municipal Code*

Adelanto Municipal Code Chapter 16.04 (General Provisions) requires all necessary details including plans, profiles, and specifications of the proposed water systems and sanitary sewers to be submitted to the City Engineer and Adelanto Public Utility Authority for review.

Adelanto Municipal Code Chapter 8.20 (Water Conservation Plan) calls for standards and policies that conserve water resources in the City. The City Council finds that, by reason of the overdraft of the water table from which the City takes its domestic water supply, and because of the current problem existing with respect to the over use of the waste of water in connection with the irrigation of landscape and other outdoor vegetation, lawns, and other growth, it is necessary to adopt and enforce a water conservation plan to conserve the water supplies of the City for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection; and it is the intent of the City Council to achieve at least an approximately 10 percent reduction in water use

Adelanto Municipal Code Chapter 17.60 (Landscaping/Water Conservation) provides minimum water conservation and landscape development standards that will promote the general welfare of the City residents through the provisions of an outdoor environment. Water conservation provisions include restrictions on the use of turf and ornamental water features and requiring the utilization of low-water-use plant materials.

Adelanto Municipal Code Chapter 13.30 (Construction Permits) provides provisions that apply to applications for the granting and control of permits for the laying, constructing, reconstructing or repairing of curbs, sidewalks, gutters, driveways, street surfaces, retaining walls, water and sewer facilities, storm drains, culverts or other appurtenant street structures in any highway.

### *Adelanto General Plan*

The Adelanto General Plan includes the following goals and policies related to potable water supplies and service systems<sup>18</sup>:

- Goal NR 1** To preserve and protect the area's renewable and nonrenewable resources to the maximum extent possible.

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<sup>18</sup> These policies are not a complete listing of all potable water supplies and service systems policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- Policy NR 1.3** The City will encourage residential, commercial, industrial users to conserve the use of water and other renewable and nonrenewable natural resources by incorporating conservation measures.
- Policy NR 1.6** Conservation techniques shall be required for proposed development (both domestic and industrial) to minimize consumption levels of renewable and nonrenewable natural resources including water resources.
- Goal NR 2** To reduce the rate of consumption per capita of renewable and nonrenewable natural resources which are located within and outside the Planning Area.
- Policy LU 1.1** Promote low per capita water use through the use of low water consumptive plant materials/desert plants (xeriscape).
- Policy WQ 1.1** The City will require that development be designed and constructed to conserve water utilizing low flow irrigation and plumbing fixtures and facilities.
- Policy WQ 1.5** The City will require that all new development utilize water conservation techniques to conserve water resources, such as the use of low-flow irrigation and plumbing systems in new and existing development.

## **Wastewater Collection and Treatment**

### *City of Adelanto Sewer Standards*

In 2003, the APUA published standard specifications for the furnishing of materials and the construction of sanitary in Adelanto. The City Engineer shall decide within the provisions of the specification, all concerns regarding the quality or acceptance of materials furnished and work performed. The standards specify regulations that apply to materials; methods of construction; and pavement replacement.

### *City of Adelanto Municipal Code*

Adelanto Municipal Code Chapter 16.04 (General Provisions) requires all necessary details including plans, profiles, and specifications of the proposed water systems and sanitary sewers to be submitted to the City Engineer and Adelanto Public Utility Authority for review.

Adelanto Municipal Code Chapter 13.30 (Construction Permits) provides provisions that apply to applications for the granting and control of permits for the laying, constructing, reconstructing or repairing of curbs, sidewalks, gutters, driveways, street surfaces, retaining walls, water and sewer facilities, storm drains, culverts, or other appurtenant street structures in any highway.

### *Adelanto Urban Water Management Plan*

As mentioned previously, the City of Adelanto 2010 UWMP was adopted by resolution of the APUA on June 22, 2011. The 2010 UWMP provides a plan for collection and treatment of wastewater to be used for recycling purposes.

## Solid Waste

### *City of Adelanto Municipal Code*

Adelanto Municipal Code Chapter 8.01 (Collection of Solid Waste) ensures that the City complies with state law regarding solid waste management by reduce waste generation, promoting reuse, and requiring solid waste collection for recycling and composting.

Additionally, Municipal Code Chapter 8.02 provides provisions pertinent to recycling requirements for large events and large venues. Also, Chapter 8.05 regulates recycling and diversion of construction and demolition waste in the City.

## Electricity and Natural Gas

### *City of Adelanto Municipal Code*

Adelanto Municipal Code Chapter 14.28 requires compliance with the California Code of Regulations Title 24, Part 6, known and designated as the California Energy Code, 2010 edition.

### *Adelanto General Plan*

The Adelanto General Plan includes the following goals and policies related to utilities<sup>19</sup>:

- Goal NR 1** To preserve and protect the area's renewable and nonrenewable resources to the maximum extent possible.
- Policy NR 1.1** The City shall promote the development and use of alternative energy sources, such as passive solar in industrial, commercial and residential developments.
- Policy NR 1.3** The City will encourage residential, commercial, industrial users to conserve the use of water and other renewable and nonrenewable natural resources by incorporating conservation measures.
- Policy NR 1.4** All new developments will be required to implement energy conservation techniques into the development design.
- Policy NR 1.6** Conservation techniques shall be required for proposed development (both domestic and industrial) to minimize consumption levels of renewable and nonrenewable natural resources including water resources.
- Goal NR 2** To reduce the rate of consumption per capita of renewable and nonrenewable natural resources which are located within and outside the Planning Area.
- Long Term Implementation Strategy AQ 1.2.9:** The City has the opportunity to provide leadership in reducing employee related air pollutant emissions. Progressive City programs to reduce vehicle miles traveled, vehicle trips, solid waste, and energy consumption would improve air quality.

## Telephone and Communications

There are no local regulations applicable to telephone and communications.

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<sup>19</sup> These policies are not a complete listing of all utilities policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

## ■ Project Impact Evaluation

### **Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on utilities and service systems if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, or local statutes and regulations related to solid waste

### **Analytic Method**

The programs and measures contained in the Regional Reduction Plan were compared to applicable utility infrastructure policies and capacity to determine if any inconsistency exists.

### **Effects Not Found to Be Significant**

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
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Implementation of the Regional Reduction Plan includes water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. These water conservation strategies will reduce the amount of wastewater going to the wastewater treatment facilities but will not change the treatment process at those facilities. The quality of wastewater is overseen by two agencies, the Lahontan Regional Water Quality Control Board (RWQCB) and the California Department of Public Health (CDPH). The Lahontan RWQCB has regional permitting authority over water quality issues and the CDPH oversees standards and health concerns. California Code of Regulations Title 22 provides the regulatory setting for drinking water quality in California and is followed by these agencies when they assess water quality. Therefore, there would be *no impact*.

Threshold	Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
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Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy efficient equipment at the treatment facilities but does not increase capacity or the need for additional water treatment. In fact, implementation of the Regional Reduction Plan will reduce the need for water and wastewater treatment through the various water conservation strategies. Therefore, there would be **no impact**. No further analysis is required.

Threshold	Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
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New stormwater drainage facilities would be needed, if a project increased impervious surfaces causing additional runoff or a project changed the surface flow in a way that required stormwater new drainage facilities. However, implementation of the Regional Reduction Plan would not result in a substantial (if any) increase in impervious surfaces in the City. The Proposed Project would not to substantially change the drainage patterns on any site within the City. Impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements?
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Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The net result of these measures is the reduction in water consumption. Therefore, the Regional Reduction Plan results in better management of existing water supplies within the City. For these reasons, the Regional Reduction Plan would have a beneficial impact on water supplies, and impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
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Implementation of the Regional Reduction Plan includes water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. These water conservation strategies will reduce the amount of wastewater going to wastewater treatment facilities. Therefore, impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
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Implementation of the Regional Reduction Plan includes solid waste diversion that would reduce the amount of waste currently going to landfills. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project comply with federal, state, or local statutes and regulations related to solid waste?
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Implementation of the Regional Reduction Plan includes solid waste diversion. Recycling of solid waste as part of the solid waste diversion would comply with all federal, state, and local statutes and regulations related to the recycling of solid waste. Therefore, impacts would be ***less than significant***. No mitigation is required.

## ■ Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to utilities and service systems at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

## ■ References

- Adelanto, City of. 1992. *City of Adelanto Master Plan of Drainage*, November.
- . 1994a. *City of Adelanto General Plan Update*, May.
- . 1994b. *Draft Program Environmental Impact Report City of Adelanto General Plan Update*, August.
- . 2011a. *2008–2014 Housing Element Initial Study*, December.
- . 2011b. *City of Adelanto 2010 Urban Water Management Plan*, June.
- . 2012. *City of Adelanto Municipal Code*, July.
- Adelanto Public Utility Authority (APUA). 2006. *Water Standards, Standard Specifications for the Furnishing of Materials and the Construction of Water Facilities*, November.
- California Energy Commission. (CEC). 2007. *The Role of Land Use in Meeting California's Energy and Climate Change Goals*. Report CEC-600-2007-008-SD.
- California Regional Water Quality Control Board (CRWQCB), Lahontan Region. 2010. *Water Quality Control Plan for the Lahontan Region*.
- San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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## 4.1.18 Mandatory Findings of Significance

Under the California Environmental Quality Act (CEQA), an EIR must be prepared when certain specified impacts might result from construction or implementation of a project. This EIR has been prepared for the San Bernardino County Regional GHG Reduction Plan to fully address all of the Mandatory Findings of Significance, as described below.

### ■ Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on mandatory findings of significance if it would do any of the following:

- 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
- Have impacts that are individually limited, but cumulatively considerable (“cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)
- Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly

### ■ Degradation of the Environment

Under CEQA Guidelines Section 15065(a), a finding of significance is required if a project “has the potential to substantially degrade the quality of the environment.” In practice, this is the same standard as a significant effect on the environment, which is defined in CEQA Guidelines Section 15382 as “a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

This EIR, in its entirety, addresses and discloses all potential environmental effects associated with construction and operation of the proposed project, including direct, indirect, and cumulative impacts in the following resource areas:

- Aesthetics
- Agriculture/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils

- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems

As summarized in Table 2-22 (Summary of Mitigation Measures) and Table 4.1-5 (Summary of Environmental Effects of Implementing Local Reduction Measures in Adelanto), this EIR discloses all potential environmental impacts, the level of significance prior to mitigation, project requirements that are required by law or are incorporated as part of the project description, feasible mitigation measures, and the level of significance after the incorporation of mitigation measures.

### ■ Long-Term Impacts

As described in CEQA Guidelines Section 15065(a)(2), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. Section 5.1 (Significant Irreversible Environmental Effects) of this document addresses the short-term and irretrievable commitment of natural resources to ensure that the consumption is justified on a long-term basis. In addition, Section 5.2 (Growth-Inducing Impacts) identifies any long-term environmental impacts caused by the proposed project with respect to economic or population growth. Lastly, Section 5.4 (Significant Environmental Effects That Cannot Be Avoided if the Proposed Project is Implemented) identifies all significant and unavoidable project-related impacts that could occur.

### ■ Cumulative Impacts

A cumulative impact analysis is only provided for those thresholds that result in a less-than-significant or significant and unavoidable impact. A cumulative impact analysis is not provided for Effects Found Not to Be Significant, which result in no project-related impacts.

Under CEQA Guidelines Section 15065, a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited, but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” Cumulative impacts are addressed for each of the environmental topics listed above and are provided in Sections 4.1.1 through 4.1.17 of this EIR.

## ■ Impacts on Species

Under CEQA Guidelines Section 15065(a)(1), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Section 4.1.4 (Biological Resources) of this EIR fully addresses impacts related to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species.

## ■ Impacts on Historical Resources

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to eliminate important examples of a major period of California history or prehistory. Section 15065(a)(1) amplifies Public Resources Code (PRC) Section 21001(c) requiring that major periods of California history are preserved for future generations. It also reflects the provisions of PRC Section 21084.1 requiring a finding of significance for substantial adverse changes to historical resources. CEQA Guidelines Section 15064.5 establishes standards for determining the significance of impacts to historical resources and archaeological sites that are a historical resource. Section 4.1.5 (Cultural Resources) of this EIR) fully addresses impacts related to California history and prehistory, historic resources, archaeological resources, and paleontological resources.

## ■ Impacts on Human Beings

Consistent with CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology/soils, hazards/hazardous materials, hydrology/water quality, noise, population/housing, public services, transportation/traffic, and utilities/service systems, which are addressed in Sections 4.1.3, 4.1.6, 4.1.8, 4.1.9, 4.1.12, 4.1.13, 4.1.14, 4.1.16, and 4.1.17 of this EIR, respectively.

## ■ References

Kostka, Stephan L. and Michael H. Zischke. 2005. *Practice under the California Environmental Quality Act*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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