

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

SCH No. 2012111046

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

Prepared for

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Working Together

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4.8 CITY OF HESPERIA

4.8.0 Introduction to the Analysis

This section of the EIR analyzes the potential environmental effects in the City of Hesperia from implementation of the Regional Reduction Plan. The city of Hesperia is located in the far southwestern corner of the Mojave Desert, also known as the Victor Valley (Figure 4.8-1 [Location Map]). Both the Mojave River and the California Aqueduct flow through Hesperia.

Founded in 1891, Hesperia’s history is closely linked to travel and transportation, beginning in the 1700s, and subsequently agriculture. Hesperia’s population grew relatively slowly until the completion of several major highways, including State Route 66 (SR-66), SR-91, SR-395, and Interstate 15 (I-15) in the 1940s and 1960s. After completion of these roads, suburban growth transformed the small town of 5,000 people in 1970 to a moderately sized community of over 60,000 by 2000. The City was incorporated in 1988. Hesperia remains a semi-rural community with a variety of housing opportunities, including custom-built villas, modern subdivisions with access to a variety of amenities, and large-lot residential zoning. Agricultural uses still occur in many areas.

The population of Hesperia in 2010 was 90,173, up from 89,617 in 2008, making Hesperia the seventh largest city in San Bernardino County. The population is expected to increase by 10 percent compared to 2008. The city expects a 22 percent growth in employment before 2020, one of the highest in the county.

Table 4.8-1 (Socioeconomic Data for Hesperia) presents socioeconomic data for Hesperia, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.8-1 Socioeconomic Data for Hesperia		
Category	2008	2020
Population	89,617	98,613
Housing (DUs)	26,266	28,892
Single-Family (DUs)	21,546	23,700
Multifamily (DUs)	4,720	5,192
Employment (jobs)	15,537	20,436
Agricultural (jobs)	80	146
Industrial (jobs)	4,217	6,184
Retail Commercial (jobs)	3,993	4,762
Non-Retail Commercial (jobs)	7,247	9,345

Two documents are used in reviewing the potential environmental impacts and mitigation within the City of Hesperia from implementation of the Regional Reduction Plan. The first document is the Hesperia 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 Hesperia chapter that describes the reduction measures and reduction targets chosen by the City of Hesperia. This document is the proposed project as it pertains to the City of Hesperia.

■ Hesperia General Plan

The Hesperia General Plan consists of seven elements: Land Use, Circulation, Housing, Open Space, Noise, Conservation, and Safety. The goals and policies of the General Plan are intended to provide a framework for decision makers to determine whether projects are consistent with the vision of the City. Goals and policies are used to direct programs towards achieving the City's goals.

The Hesperia General Plan policies that are relevant to the Regional Reduction Plan implementation are listed in Table 4.8-2 (Hesperia General Plan Policies).

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

In 2010, the City of Hesperia completed a Climate Action Plan (CAP). The City participated in this regional effort as a study to inform their decision to update or revise their existing CAP. As part of this effort, the City of Hesperia has selected a goal to reduce its community GHG emissions to a level that is 29 percent below its projected level of GHG emissions in 2020. The City will meet and exceed this goal through a combination of state (~73 percent) and local (~27 percent) efforts. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Hesperia's on-road, off-road, and building energy sectors in 2020. An additional reduction of 45,847 metric tons (MT) carbon dioxide equivalent (CO₂e) will be achieved primarily through the following local measures, in order of importance: Solar Installations for Existing Housing (Energy-7); GHG Performance Standard for Existing Development (PS-1); and Water Efficiency Renovations for Existing Buildings (Water-2). Hesperia's plan has the greatest impacts on GHG emissions in the wastewater treatment, building energy, and on-road transportation sectors.

Figure 4.8-2 (Emissions Reduction Profile for Hesperia) shows Hesperia'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., 29 percent below the projected level of GHG emissions in 2020). 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 (~73 percent) of the total reductions needed to achieve the 2020 target.

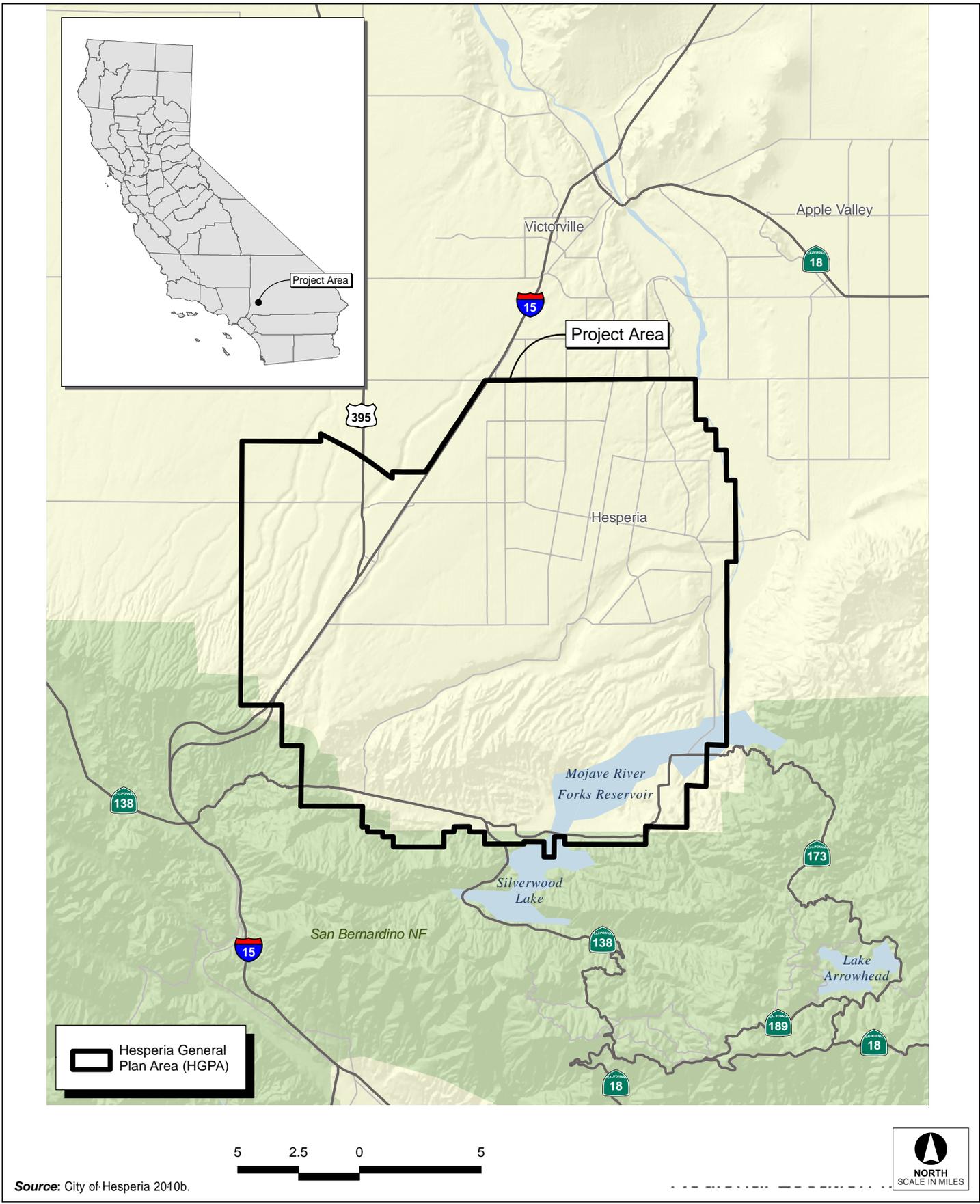


Figure 4.8-1
Location Map

Table 4.8-2 Hesperia General Plan Policies	
<i>Element</i>	<i>Policies</i>
LAND USE ELEMENT	
LU-2.3	Provide opportunities for a variety of residential densities to accommodate rural and suburban lifestyles, and housing types for all economic and demographic segments of the City's population, with convenient access to public facilities, employment and shopping.
LU-2.4	Utilize mixed-use development to create unique and varied housing.
LU-3.4	Encourage the beautification of pedestrian areas, particularly through the use of landscaping.
LU-3.5	Require the separation or buffering of residential areas from businesses which produce noise, odors, high traffic volumes, light or glare, and parking through the use of landscaping, setbacks, and other techniques.
LU-3.8	Incorporate landscape plantings into commercial developments to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.
LU-4.7	Incorporate landscape plantings into commercial developments to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.
LU-6.1	Promote the use of green building standards and Leadership in Energy and Environmental Design (LEED), or other equivalent programs, in both private and public projects.
LU-6.2	Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, consistent with Policy LU-6.1.
LU-6.3	Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
LU-6.4	Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
LU-6.5	Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
LU-6.6	Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.
LU-6.7	Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
LU-7.2	Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, consistent with Policy LU-6.1.
LU-7.3	Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
LU-7.4	Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
LU-7.5	Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
LU-7.6	Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.
LU-7.7	Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
LU-8.2	Coordinate land use planning with infrastructure provision and planning, both within the City and within the sphere of influence, to ensure adequate, convenient, and efficient provision of support services as development occurs, funded by those who benefit.

Table 4.8-2 Hesperia General Plan Policies

<i>Element</i>	<i>Policies</i>
LU-8.3	Permit density transfers and clustering as a means of achieving more efficient housing construction and providing areas of usable common open space, in addition to payment of development impact fees.
CIRCULATION ELEMENT	
CI-1.1	Systematically improve the public roadway system to meet existing and future demands within the planning area.
CI-1.2	Establish and maintain standards for a variety of street classifications to serve both local and regional traffic.
CI-1.3	Ensure that the appropriate street design is provided for all streets based on their designation on the City's adopted Transportation Plan.
CI-1.4	Develop a Traffic Circulation Plan sufficiently flexible to accommodate short term improvements, while maintaining the integrity of the long range plan.
CI-1.5	Adopt a comprehensive Transportation Plan which makes efficient use of the existing road network, improves circulation patterns in congested areas, provides increased access to areas presently lacking road infrastructure, provides consistency with plans for adjacent areas and federal and state highways, and minimizes impacts to residential neighborhoods.
CI-1.6	Annually adopt a multi-year Capital Improvement Program and budget to ensure the organized financing and construction of roadway improvements.
CI-1.7	Maximize the use of available Federal, State, and County funds in the implementation of the adopted Traffic Circulation Plan through interagency coordination.
CI-1.8	Assure efficient use of road improvement funds through cooperation with other agencies and jurisdictions.
CI-1.9	Periodically review the street roadway classifications for streets on the Traffic Circulation Plan to maintain support for surrounding land uses and anticipated new development.
CI-1.10	Ensure that new development provides for adequate road improvements to serve internal circulation needs, as well as to mitigate impacts of increased traffic on the existing road system.
CI-1.11	Encourage alternative modes of transportation including bus, bicycle, pedestrian, and equestrian through street design.
CI-1.12	Provide for a safe and efficient pedestrian network.
CI-1.13	Where feasible, create opportunities for horseback riding, hiking, jogging, running, walking and bicycling through the establishment of interconnected trail systems throughout the community accessing parks, recreational facilities, scenic areas and areas of interest.
CI-1.14	Coordinate with San Bernardino County Flood Control District and Southern California Edison Company to promote utilization of easements for the trail system.
CI-2.1	Strive to achieve and maintain a LOS D or better on all roadways and intersections: LOS E during peak hours shall be considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, Highway 395).
CI-2.2	Work with regional agencies which have authority over roadways within the City to ensure a minimum Level of Service D for roadways and a minimum Level of Service E for intersections.
CI-2.3	Incorporate into the City's multi-year Capital Improvement Program improvements designed to improve the existing deficient Levels of Service on existing roadways and intersections operating at deficient LOS.
CI-2.4	Develop policies and regulations to ensure that future development does not reduce the Level of Service of roadways and intersections below the minimum Levels of Service goals.
CI-2.5	Maintain the City's development impact fee program for future development which includes improvements to roadways to mitigate of the impact of the new development.
CI-2.6	Synchronize traffic signalization systems to minimize traffic delays.
CI-2.7	Review and monitor street improvements to ensure that improvements optimize traffic flow efficiency.
CI-2.8	Reduce trip generation through development and implementation of Transportation Demand Management Programs.

Table 4.8-2 Hesperia General Plan Policies	
Element	Policies
CI-3.2	Coordinate with the California Department of Transportation (Caltrans), regional transportation agencies, and neighboring jurisdictions concerning the improvement and construction of needed freeway interchanges and other barrier crossings to relieve traffic congestion and improve circulation, and to improve the coordination of traffic signals at existing freeway interchanges with those on City streets.
CI-4.2	Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking.
CI-4.5	Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking.
CI-5.1	Provide a wide range of travel alternatives to the use of single occupancy vehicles.
CI-5.2	Work with Caltrans and San Bernardino Associated Governments (SANBAG) to provide additional park-and-ride lots at key locations near existing and proposed interchanges with Interstate 15.
CI-5.3	Continue to participate with the Victor Valley Transit Authority to ensure there are adequate routes to provide efficient, adequate, safe service for the community.
CI-5.4	Continue to work with and support the Victor Valley Transit Authority in providing transit facilities for elderly and handicapped residents.
HOUSING ELEMENT	
1.5	Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.
3.2	Encourage development of residential uses in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.
OPEN SPACE ELEMENT	
OS-2.2	Coordinate efforts with other public and private agencies regarding potential trail systems, recreational facilities and recreational programs.
OS-6.1	Provide an interconnecting plan in conjunction with surrounding agencies to provide regional trails.
OS-6.3	Provide a comprehensive network trails plan that connects residents to open space areas, recreational facilities, and areas of interest.
NOISE ELEMENT	
NS-1.1	Incorporate noise reduction features during site planning and into land use planning decisions to mitigate anticipated noise impacts on affected noise-sensitive land uses.
NS-1.2	Control and abate undesirable sounds through the use of the land use compatibility criteria shown in Exhibit NS-1, Table N-3, and Municipal Code Section 16.20.125(B).
NS-1.3	Enforce the California Noise Insulation Standards (California Code of Regulations, Title 24). Title 24 requires that an acoustical analysis be performed for all new multifamily residences in areas where the exterior sound level exceeds 60 dBA CNEL. The analysis shall ensure that the building design limits the interior noise environment to 45 dBA CNEL or below.
NS-1.4	Require that an acoustical analysis be performed for all new single-family residences in areas where the exterior sound level exceeds 60 dBA CNEL. The analysis shall ensure that the building design limits the interior noise environment to 45 dBA CNEL or below.
NS-1.5	Require the design and construction of commercial, industrial, office and mixed-use structures developments with noise attenuation methods to minimize excessive noise upon noise-sensitive land uses.
NS-1.6	Provide developers and builders with development noise policy guidelines. The guidelines shall provide specific design criteria, minimum standards for submittal of acoustical studies and descriptions of acceptable noise mitigation measures.

Table 4.8-2 Hesperia General Plan Policies	
<i>Element</i>	<i>Policies</i>
NS-1.7	Ensure that areas frequent outdoor use (See Table N-3footnote 2.) at noise-sensitive land uses are not subjected to inappropriate noise levels resulting from transportation systems.
NS-1.9	Encourage commercial, industrial, office and mixed-use developments to locate loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from noise-sensitive land uses.
NS-1.10	Limit the hours of construction activity in, and around, residential areas in order to reduce the intrusion of noise in the early morning and late evening hours and on weekends and holidays.
NS-1.13	Ensure adequate noise control measures at construction sites by requiring that construction equipment be fitted with manufacturer-recommended mufflers and ensuring physical separation of machinery maintenance and staging areas from adjacent residential uses.
NS-2.1	Control exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels as set forth in Table NS-1 and Municipal Code Section 16.20.130.
CONSERVATION ELEMENT	
CN-1.1	Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.
CN-1.2	Educate residents on water conservation methods with best practices and tips.
CN-1.4	Limit the disturbance of natural water hydrology by minimizing the creation of impervious surface area and continued utilization underground retention/detention facilities to recharge groundwater.
CN-1.6	Encourage the use of low-water consumption fixtures in homes and businesses.
CN-1.7	Require new development to use new technology, features, equipment and other methods to reduce water consumption.
CN-2.2	Encourage the use of reclaimed water for irrigation and other non-potable uses.
CN-2.4	Continue to implement the use of reclaimed water through the City's "purple pipe" ordinances and regulations to further the use of reclaimed and treated water.
CN-2.5	Implement the State and City laws and policies to develop retention basins for the replenishment of the underground water supply.
CN-4.1	Preserve pristine open space areas and known wildlife corridors areas for conservation to protect sensitive species and their habitats.
CN-4.2	Encourage the protection, preservation and long-term viability of environmentally sensitive habitats and species in the City.
CN-4.3	Identify lands that are suitable for preservation for sensitive species and their habitats.
CN-4.4	In those areas known as possible habitat for endangered and sensitive species, require proper assessments before authorizing development.
CN-4.5	Where such assessments indicate the presence of endangered or sensitive species, require appropriate actions to preserve the habitat and protect the identified species.
CN-5.1	Encourage the preservation of historical, paleontological and cultural resources.
CN-5.2	In those areas where surveys and records indicate historical, cultural or paleontological resources may be found, appropriate surveys and record searches shall be undertaken to determine the presence of such resources, if any.
CN-5.3	All historical, paleontological and cultural resources discovered shall be inventoried and evaluated according to CEQA regulations and the California Office of Historic Preservation.
CN-6.1	Explore the potential for a green building program in the City to educate the development community and promote the conservation of natural resources.
CN-6.2	Encourage the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.

Table 4.8-2 Hesperia General Plan Policies	
Element	Policies
CN-6.3	Provide incentives like technical assistance or low-interest loans for projects that are energy efficient and contain energy conservation measures.
CN-6.4	Educate the public about energy conservation techniques.
CN-6.5	Coordinate with the local energy provider in developing policies and procedures to reduce energy consumption in existing and future developments.
CN-6.6	Encourage residents and businesses to utilize the incentives provided by the local energy providers to retrofit their buildings and businesses for energy efficiency and conservation.
CN-6.7	Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
CN-7.1	Coordinate with the Regional Councils of Government in developing appropriate regional climate action policies.
CN-7.2	In conjunction with regional councils of government, prepare and implement a city climate action plan.
CN-7.3	Coordinate with neighboring cities and public jurisdictions in the preservation of air quality resources.
CN-7.4	Promote the utilization of alternative energy resources such as wind and solar in new development.
CN-7.5	Promote the utilization of environmentally sensitive construction materials to limit impacts on the ozone, global climate change and mineral resources.
CN-7.6	Preserve land resources for the utilization of energy resources, including wind and solar energy resources.
CN-7.7	Promote energy conservation through site layout, building design, natural light and efficient mechanical and electrical products in development.
CN-7.8	Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
CN-7.9	Promote sustainable principles in development that conserves such natural resources as air quality and energy resources.
CN-8.1	Implement measures to reduce fugitive dust from unpaved areas, parking lots, and construction sites.
CN-8.2	Implement measures to reduce exhaust emissions from construction equipment.
CN-8.3	Work with the Mojave Desert Air Quality Management District, San Bernardino Association of Governments, San Bernardino County and neighboring jurisdictions to implement the federal ozone and PM10 non-attainment plans and meet federal state air quality standards and reduce overall emissions from mobile and stationary sources.
CN-8.4	Limit new sensitive receptor land uses in proximity to significant sources of air pollution.
CN-8.5	Minimize exposure of sensitive receptor land uses and sites to health risks related to air pollution.
SAFETY ELEMENT	
SF-1.2	Require all development proposals in the City to conduct, as a condition of approval, geotechnical and engineering geological investigations, prepared by State-certified professionals (geotechnical engineers and engineering geologists, as appropriate) following the most recent guidelines by the California Geological Survey and similar organizations, that address, at a minimum, the site-specific seismic and geologic hazards identified in the Technical Background Report. These reports shall provide mitigation measures to reduce those hazards identified at a site to an acceptable level.
SF-1.3	City Staff or City representatives will conduct routine inspection of grading operations to ensure site safety and compliance with approved plans and specifications.
SF-1.5	Liquefaction assessment studies shall be conducted as a condition of approval for all projects proposed in areas identified as potentially susceptible to liquefaction (see the Technical Background Report). The studies shall be conducted in accordance with the California Geological Survey's Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazards in California (2008 or more recent version), and the Earthquake Engineering Research Center's Report No. EERC-2003-06 (or more recent version): Recent Advances in Soil Liquefaction Engineering.

Table 4.8-2 Hesperia General Plan Policies

Element	Policies
SF-2.1	The City shall continue enforcing the City's Municipal Code provisions for flood hazard reduction (Title 8: Safety, Chapter 8.28: Flood Hazard Protection and Regulations). This code, which applies to new construction and existing projects undergoing substantial improvements, provides constructions standards that address the major causes of flood damage, and includes provisions for anchoring, placement of utilities, raising floor elevations, using flood-resistant construction materials, and other methods to reduce flood damage.
SF-2.2	The City will require that new discretionary development proposals include, as a condition of approval, hydrological studies prepared by a State-certified engineer that assess the impact that the new development will have on flooding potential of existing development down-gradient. The studies shall provide mitigation measures to reduce this impact to an acceptable level. Single family residences on existing lots should be exempted.
SF-2.7	The City will regulate development in Flood Zones A and AE pursuant to FEMA regulations.
SF-4.6	The City will continue to support the operation of programs and recycling centers that accept hazardous substances, such as paint, paint thinner, used waste oil, etc., such as the City's Drop-Off facility.

SOURCE: City of Hesperia, *City of Hesperia General Plan 2010*.

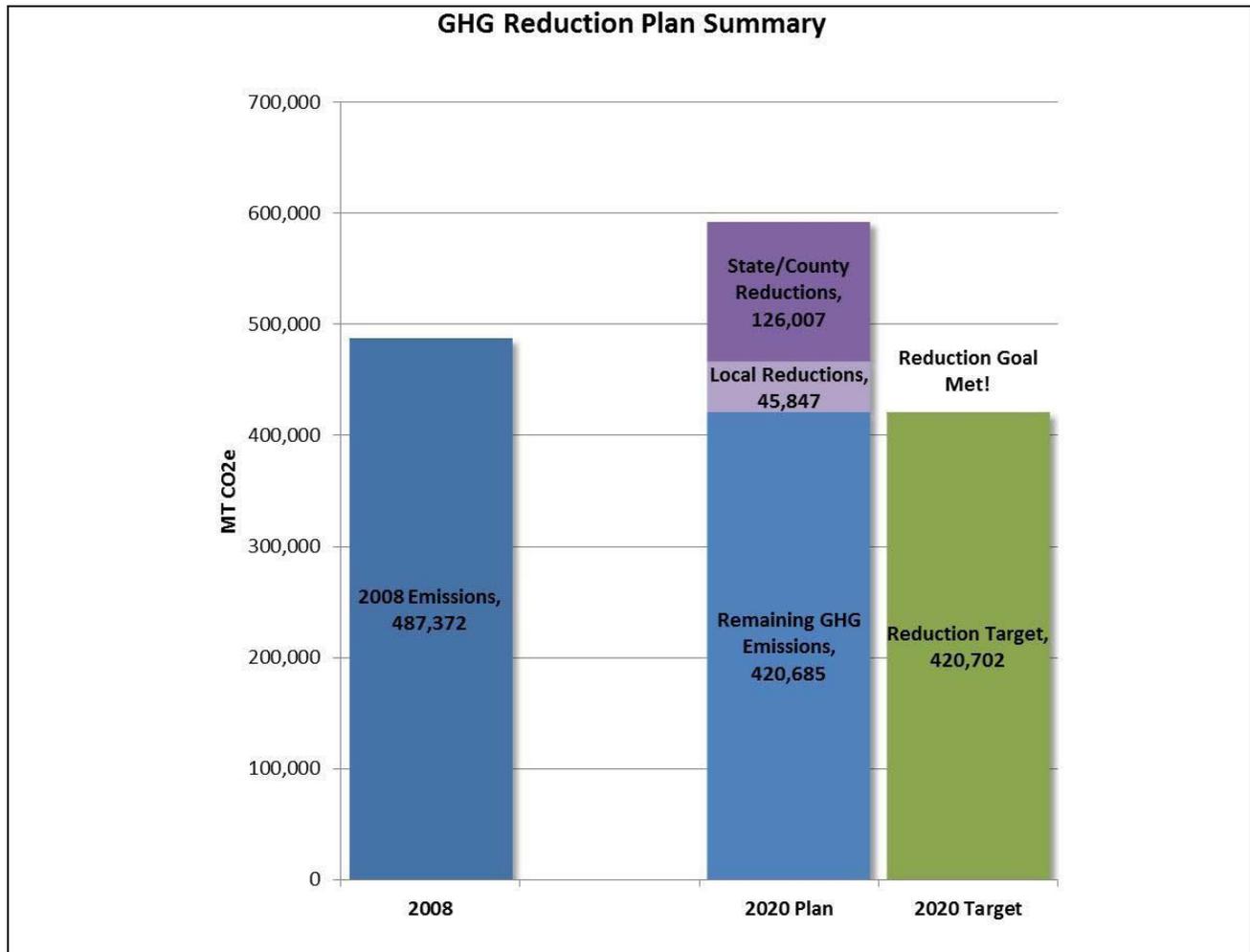


Figure 4.8-2 Emissions Reduction Profile for Hesperia

Figure 4.8-3 (Emissions by Sector for Hesperia) 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.

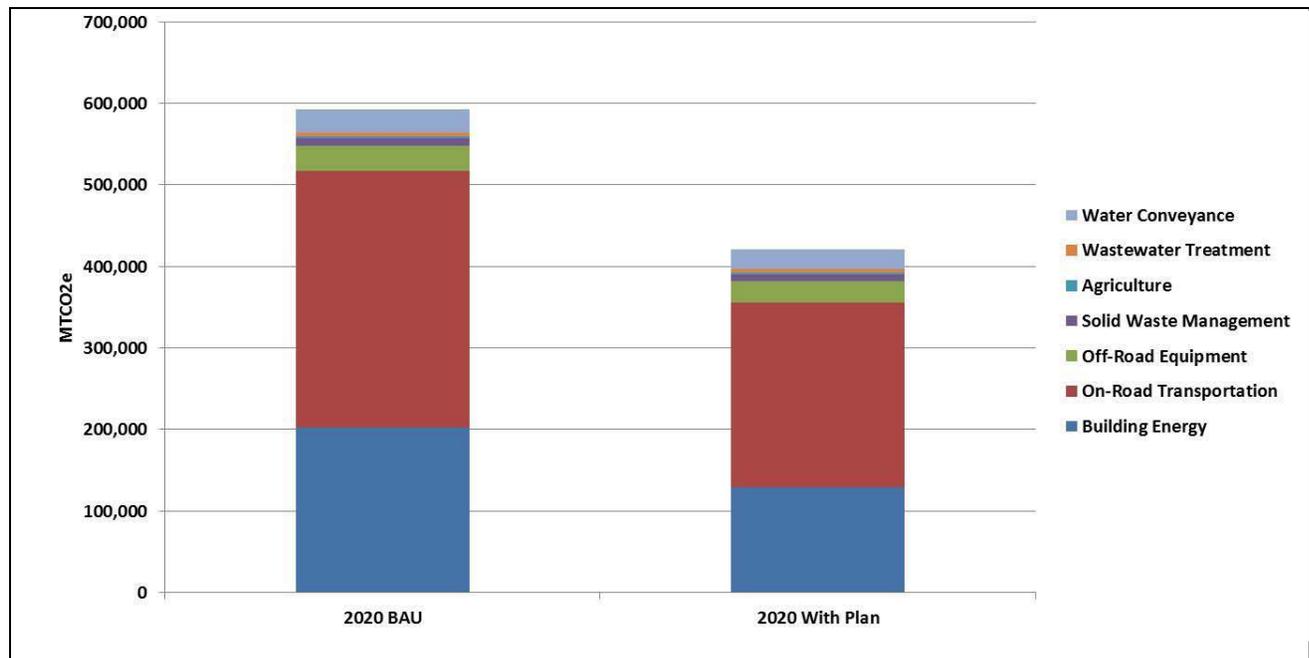


Figure 4.8-3 Emissions by Sector for Hesperia

Table 4.8-3 (Emission Reduction by Sector for Hesperia) 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 Hesperia exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the wastewater treatment, building energy, and on-road transportation sectors.

Figure 4.8-4 (Emission Reductions by Control and by Sector for Hesperia) 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 and due to Solar Installation for Existing Housing (Energy-7).

Table 4.8-4 (GHG Reduction Measures and Estimated 2020 Reductions for Hesperia) presents the reduction measures selected by Hesperia. 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 Hesperia.

Table 4.8-3 Emission Reduction by Sector for Hesperia					
Sector	2008	2020 BAU	Reductions	2020 Emissions with Plan	% Reduction
Building Energy	175,682	202,584	62,945	139,639	31.1%
On-Road Transportation	255,860	314,249	87,282	226,967	27.8%
Off-Road Equipment	27,949	31,045	3,983	27,062	12.8%
Solid Waste Management	7,007	8,858	745	8,113	8.4%
Agriculture	5,572	2,840	0	2,840	0.0%
Wastewater Treatment	3,624	3,995	53	3,942	1.3%
Water Conveyance	11,677	28,968	3,426	25,542	11.8%
GHG Performance Standard*	—	—	13,420	—	—
Total Emissions	487,372	592,539	171,854	420,685	29.0%
Reduction Goal	—	—	171,836	420,702	29.0%
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	—	—	17	—	—
Per-Capita Emissions	5.4	6.0	—	4.3	—
Per-Job Emissions	31.4	29.0	—	20.6	—
Excluded Stationary Source Emissions	50,216	71,693	—	—	—

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.

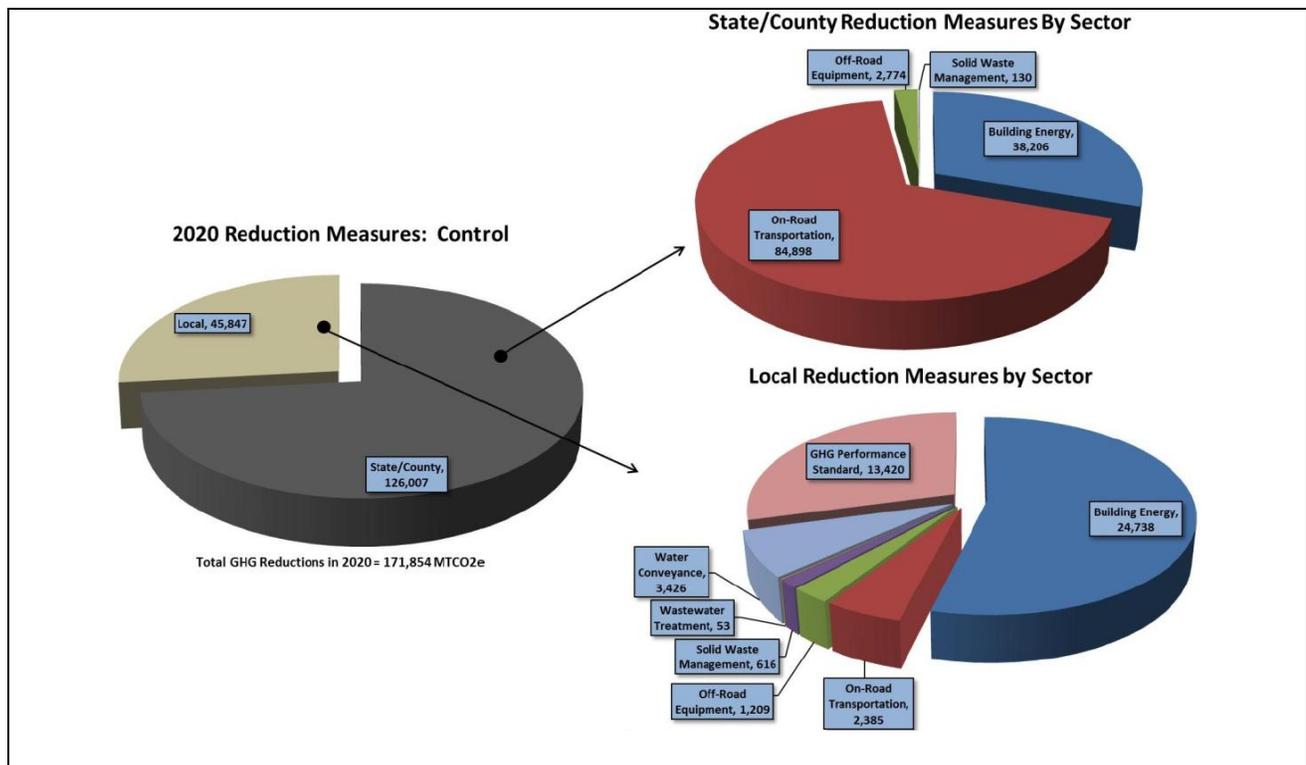


Figure 4.8-4 Emission Reductions by Control and by Sector for Hesperia

Table 4.8-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Hesperia		
<i>Reduction Measure Number</i>	<i>Description</i>	<i>Emissions Reductions</i>
STATE AND COUNTY MEASURES		
State-1	Renewable Portfolio Standard	24,924
State-2	Title 24	6,070
State-3	AB 1190	6,928
State-4	Solar Water Heating	240
State-5	Industrial Boiler Efficiency	45
State-6	Pavley and Low Carbon Fuel Standard	77,934
State-7	AB 32 Transportation Reduction Strategies	6,963
State-8	Low Carbon Fuel Standard-Off-road	2,774
State-9	AB 32 Methane Capture	102
County-1	County GHG Reduction Plan Landfill Controls	28
LOCAL MEASURES		
Building Energy		
Energy-1	Energy Efficiency of Existing Buildings	2,911
Energy-2	Outdoor Lighting	1,447
Energy-4	Solar Installation for New Housing	138
Energy-6	Solar Installation for Warehouse Space	442
Energy-7	Solar Installation for Existing Housing	14,012
Energy-8	Solar Installation for Existing Commercial/Industrial	995
<i>Land Use-1 (BE)</i>	<i>Tree Planting</i>	<i>1</i>
<i>Wastewater-2 (BE)</i>	<i>Equipment Upgrades</i>	<i>1,680</i>
<i>Water-1 (BE)</i>	<i>Require Tier 1 Voluntary CALGreen Standards for New Construction</i>	<i>280</i>
<i>Water-2 (BE)</i>	<i>Renovate Existing Buildings to Achieve Higher Levels of Water Efficiency</i>	<i>2,832</i>
On-Road Transportation		
Transportation-1	Sustainable Communities Strategy	2,385
Off-Road Equipment		
OffRoad-1	Construction Equipment	1,085
OffRoad-3	Landscaping Equipment	124
Solid Waste Management		
Waste-2	Waste Diversion	616

Table 4.8-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Hesperia

<i>Reduction Measure Number</i>	<i>Description</i>	<i>Emissions Reductions</i>
Wastewater Treatment		
Wastewater-1	Methane Recovery	21
<i>Water-1 (WT)</i>	<i>Require Tier 1 Voluntary CALGreen Standards for New Construction</i>	280
<i>Water-2 (WT)</i>	<i>Renovate Existing Buildings to Achieve Higher Levels of Water Efficiency</i>	2,832
Water Conveyance		
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
<i>Wastewater-3 (WC)</i>	<i>Recycled Water</i>	581
GHG Performance Standard for New Development		
PS-1	GHG Performance Standard for New Development (30% below Projected BAU emissions for projects)	13,420
Total Reductions		171,854

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 Hesperia chapter describes the proposed project including the reduction measures and reduction targets chosen by the City of Hesperia. 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 Hesperia. No comment letters specific to the City of Hesperia were received in response to the notice of preparation (NOP) circulated for the proposed project.

Table 4.8-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia) 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)

MM4.8.5-1

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 Hesperia, 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 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Aesthetics																		
Scenic vistas	LS	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Scenic highways	LS	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Visual character or quality	LS	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Light and glare	LS	LS	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Agriculture/Forestry Resources																		
Convert farmland to nonagricultural use	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
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
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
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
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Air Quality																		
Conflict or obstruct air quality management plan	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Violation of air quality standard	LS	NI	NI	LS	LS	LS	LS	LS	NI	NI	LS	LS	LS	NI	NI	NI	NI	LS
Exposure of sensitive receptors	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI
Creation of objectionable odors	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI
Cumulatively considerable net increase of any nonattainment criteria pollutant	LS	LS	LS	LS	LS	LS	LS	LS	LS	NI	LS	LS	LS	LS	LS	LS	LS	LS

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Biological Resources																		
Special-status species	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Riparian habitat or other sensitive natural community	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Protected wetlands	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Wildlife movement	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Conflict with any local policies or ordinances protecting biological resources	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Conflict with habitat conservation plan	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Cultural Resources																		
Substantial adverse change in significance of a historical resource	LS/MM	NI	NI	LS/MM	LS/MM	LS/MM	NI	NI	NI	NI	LS/MM	NI	NI	NI	NI	NI	NI	NI
Substantial adverse change in significance of a archaeological resource	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Disturb any human remains	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS/MM	NI	NI	LS/PR	LS/MM	LS/MM	NI	NI	NI	NI	LS/MM	NI	NI	NI	NI	NI	NI	NI
Geology/Soils																		
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Substantial soil erosion or loss of topsoil	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	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	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Located on expansive soil	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	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
Cumulative impacts	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Greenhouse Gas Emissions/Global Climate Change																		
Generate greenhouse gas emissions	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
Hazards/Hazardous Materials																		
Create significant hazard through the routine transport, use, or disposal of hazardous materials	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	NI	LS/PR	NI	NI	LS/PR	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
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
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	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
Cumulative impacts	LS/PR	NI	NI	LS/PR	LS/PR	LS/PR	NI	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Hydrology/Water Quality																		
Violate any water quality standards or waste discharge requirements	NI	NI	NI	NI	LS/PR	NI	NI	NI	LS	LS	LS/PR	NI	NI	NI	NI	NI	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	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	NI	NI	NI	NI	NI	LS/PR	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	NI	NI	NI	NI	NI	LS/PR	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	LS/PR	NI	NI	NI	NI	NI	NI	NI
Otherwise degrade water quality	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	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	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	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	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	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	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
Cumulative impacts	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	LS	LS	LS/PR	NI	NI	NI	NI	NI	NI	NI
Land Use/Planning																		
Physically divide an established community	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	LS	LS	LS	LS	LS
Conflict with any applicable habitat conservation plan or natural community conservation plan	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Cumulative impacts	LS	LS	LS	LS	LS/PR	NI	LS	LS	LS	LS	LS/PR	LS	LS	LS	LS	LS	LS	LS
Mineral Resources																		
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
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
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Noise																		
Noise levels in excess of standards established in the local general plan or noise ordinance	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Excessive groundborne vibration or groundborne noise levels	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Permanent increase in ambient noise levels	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Temporary or periodic increase in ambient noise levels	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	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	LS/PR	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	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Population/Housing																		
Induce substantial population growth	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
Displace substantial numbers of people	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	NI	NI	NI	NI	NI	NI	NI

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Public Services																		
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
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Recreation																		
Physical deterioration of recreational facilities	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	LS/PR	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Transportation/Traffic																		
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	LS	NI	NI	NI	NI	NI	NI	LS
Conflict with an applicable congestion management program	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	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
Increase hazards due to a design feature or incompatible uses	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Inadequate emergency access	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI	LS
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	LS
Utilities/Service Systems																		
Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI	NI	NI	NI	NI

Table 4.8-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Hesperia

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-4	Energy-6	Energy-7	Energy-8	Land Use-1	Wastewater-1	Wastewater-2	Wastewater-3	Transportation-1	Off-Road-1	Off-Road-3	Water-1	Water-2	Water-3	Waste-2	PS-1
Construction or expansion of new or existing water or wastewater treatment facilities	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	LS	LS	LS	NI	NI
Construction or expansion of new or existing stormwater drainage facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	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	LS	LS	LS	NI	NI
Inadequate wastewater treatment capacity	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI	NI	NI	NI	NI
Insufficient permitted solid waste disposal capacity	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	LS	NI	LS	LS	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	LS	LS	LS	LS	NI

4.8.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

Visual Character

Hesperia's visual character and resources are linked to the natural topography, vegetation, and cultural history of the region. The planning area is surrounded by natural scenic open space and contains a variety of slope conditions, soil types, plant communities, and other physical characteristics. These include the Mojave River to the east, the San Bernardino Mountain range to the south and the surrounding Victor Valley, along with the neighboring hillsides and a natural desert environment. Generally, the planning area slopes from southwest to northwest, with surface and subsurface flows trending away from the foothills and towards the Mojave River. While the foothill areas within Summit Valley contain significant slope, most of the planning area is fairly level.

The developed portions of Hesperia City limits contain numerous sources of light and glare. Examples of light and glare include 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.

Visual Resources

The topography of the City includes many areas that contain bluffs with scenic value, including the area north of the Burlington, Northern, and Santa Fe railroad from Highway 138 running northeast along the edge of the Mesa to the Hesperia Airport. Ridgelines are the most prominent features of the landscape, and are concentrated in the Rancho Las Flores area in the southeastern portion of the City near the entrance to the Cajon Pass. On a ridge top location, single structures are often visible from a 360-degree viewshed. The prominence of ridgelines is such that a structure's full mass may easily be visible from numerous points in the surrounding terrain.

The natural vegetation that occupies much of the county is an essential component of the visual landscape. The interaction of natural vegetation with other elements of the underlying natural system contributes to "naturalness," and distinguishes it from artificial landscaping. Vegetative visual resources are most commonly protected through tree preservation ordinances that place limitations on the removal of such trees. Furthermore, a large portion of the City contains existing development and is unlikely to contain vegetation that would be habitat for sensitive species.

Natural drainage patterns and watercourses are integral to the visual environment in natural areas. Natural watercourses shape the landscape and significantly influence the types and abundance of vegetation in nearby areas. Numerous washes and other natural watercourses traverse the City, including the Mojave River, Oro Grande Wash, Antelope Valley Wash, Honda Valley Wash and an unnamed Wash east of Interstate 15 (I-15). They provide both physical and visual relief from the urban development, which surrounds them, as well as providing for their intended uses managing the flow of water through the City. In addition, these washes and other watercourses can be used for a variety of open space, habitat preservation and recreational uses.

Scenic Roads and Highways

No scenic roads and highways have been designated within the City of Hesperia. However, State Highways 173 and 138 are designated as Eligible State Scenic Highways—Not Officially Designated, per the California State Highway System. The approximate two-mile segment of State Highway 173 that is designated as an Eligible State Scenic Highway is located in the southwestern portion of the City of Hesperia south of the Mojave River Forks Regional Park. The three-mile segment of State Highway 138 that is designated as an Eligible State Scenic Highway is located in the southern portion of the City and its sphere of influence and extends easterly past Cajon Junction.

■ 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.

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 Hesperia Municipal Code

The City of Hesperia Development Code (Municipal Code Title 16) 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 Hesperia Development Code are consistent with the uses established under the General Plan.

City Municipal Code Chapter 16.16 establishes allowable zoning districts and permitting for solar energy systems and windmills on developed lots. Tower-mounted windmills are allowed as accessory structures on developed lots in residential, agricultural, commercial, and industrial/industrial districts. Roof-mounted windmills are not allowed in multi-family or agricultural districts, but they are permitted as accessory structures on a developed lot in commercial and industrial/institutional districts if approved by a Revised Site Plan Review application. This chapter also identifies specific setback, height, and color requirements for windmills. Roof-mounted and ground-mounted solar energy systems are allowed as accessory structures on developed lots in residential, agricultural, commercial, and industrial/industrial districts, subject to certain conditions.

City Municipal Code Chapter 16.20 identifies landscape development standards and guidelines intended to enhance the appearance of all development and create aesthetically pleasing views and vistas along public streets, among other measures.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to aesthetics¹ are as follows:

- Policy LU-3.4** Encourage the beautification of pedestrian areas, particularly through the use of landscaping.
- Policy LU-3.5** Require the separation or buffering of residential areas from businesses which produce noise, odors, high traffic volumes, light or glare, and parking through the use of landscaping, setbacks, and other techniques.

¹ 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-3.8** Incorporate landscape plantings into commercial developments to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.
- Policy OS-2.3** Utilize natural open space to preserve natural resources such as historical, biological and scenic resources.
- Policy OS-4.2** Preserve the aesthetic integrity and usefulness of open space washes by implementing restrictive development standards on projects occurring in or around the wash areas, and ensuring development proposals are compatible.

■ 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?
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Ridgelines are the most prominent features of the landscape, and are concentrated in the Rancho Las Flores area in the southeastern portion of the City near the entrance to the Cajon Pass. On these prominently visible locations, even small structures may easily be visible from numerous points in the surrounding terrain. As established in the General Plan, protecting the City’s scenic vistas is necessary to preserve the identity and visual character of the planning area. Regional Reduction Plan measures that could involve solar energy systems for existing and new residential and commercial development could alter the integrity of a scenic vista if not properly sited and designed. City Municipal Code Chapter 16.16 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 areas or where the City has determined future trail systems would be situated (see, for example, Figure 4.8.15-1 (City of Hesperia Non-Motorized Transportation Plan) in Section 4.8.15 [Recreation]). Therefore, impacts would be *less than significant*.

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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No scenic roads and highways have been designated within the City of Hesperia. However, State Highways 173 and 138 are designated as Eligible State Scenic Highways—Not Officially Designated, per the California State Highway System. Solar arrays or windmills installed on properties adjoining or with the viewshed of these highways (if any) could be visible to motorists. As described above, City Municipal Code Chapter 16.16 identifies specific design requirements for alternative energy systems, which would reduce potential impacts. Measures that could be implemented under On-Road-1 would be expected to occur in urbanized areas, not in undeveloped mountain and lake areas along Highways 173 and 138 in the southern part of the City. Therefore, impacts would be *less than significant*.

Threshold	Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
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The City of Hesperia 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 the General Plan anticipates little growth. The natural vegetation that occupies much of the surrounding area is an essential component of the visual landscape, as are numerous washes and other natural watercourses traverse the City.

The Regional Reduction Plan does not propose specific development. Rather, it encourages increased sustainability in existing and future development, furthering the goals of the General Plan. Implementation of measure On-Road-1 encourages transit-oriented development along transit corridors, which are already developed, thereby ensuring consistency with General Plan Policies OS-2.3 and OS-4.2 that seek to preserve natural open space areas. General Plan Policies LU-3.4, LU-3.5, and LU-3.8 in combination with the City’s Development Code, would ensure that development, pedestrian connections, and landscaping in TOD projects are integrated into the landscape in an aesthetically pleasing manner. Park-and-ride lots and pedestrian/bicycle network improvements are another element of On-Road-1. The City has specific design standards for parking lots, including landscaping, which would minimize visual impacts (Municipal Code Section 16.20.120). Pedestrian and bicycle network improvements would generally be within existing areas or where the City has determined future trail systems would be situated (see, for example, Figure 4.8.15-1 (City of Hesperia Non-Motorized Transportation Plan) in Section 4.8.15 [Recreation]). Pedestrian and bicycle trails would be within or contiguous with roadways and would not be readily visible. Trails developed in open space areas would be at-grade and of limited footprint, which would not degrade visual quality.

The City of Hesperia 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.

The Regional Reduction Plan includes measures that encourage energy-saving retrofits on existing buildings and incorporation of energy-generating components in new construction, such as solar arrays that could be on buildings or adjacent to them (on site). These features could be visible to visitors, employees, and residents. These projects would be reviewed by the City to ensure compliance with City Municipal Code Chapter 16.16 (design requirements for alternative energy systems) and the Development Code to ensure that the visual quality of each affected site and surrounding environment is not substantially compromised by the installation of energy-saving measures.

Therefore, implementation of the Regional Reduction Plan in Hesperia 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 Hesperia City limits 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 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 16.16 identifies specific design requirements for alternative energy systems, which would reduce potential glare impacts.

New park-and-ride lots could be a source of glare from vehicle windshields. General Plan Policy LU-3.5 requires the separation or buffering of residential areas from activities that produce light or glare through the use of landscaping, setbacks, and other techniques, which would help reduce glare impacts. In addition, Municipal Code Section 16.20.610 sets forth specific tree planting requirements for parking lots.

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 Hesperia 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 16.16 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 Hesperia City limits contain numerous sources of light and glare. The General Plan directs growth away from scenic areas that would be adversely impacted by light and glare from urban development, concentrating development along the I-15 freeway corridor. Implementation of the regional measures in Hesperia 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 skyglow. Therefore, the proposed project would not result in a cumulatively considerable contribution to light and glare effects. ***Cumulative impacts would be less than significant.***

■ References

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

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4.8.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

As set forth in CEQA Guidelines Section 15125(a) this section describes the physical environmental conditions in the City and SOI at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the City of Hesperia will determine whether an impact to agricultural/forestry resources are significant.

Designated Agricultural Lands

The State of California designates land into eight categories of land use designation based on soil quality and existing agriculture uses to produce maps and statistical data. These maps and data are used to help preserve productive farmland and to analyze impacts on farmland. Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are all Important Farmland and are collectively referred to as Important Farmland in this EIR. The highest rated Important Farmland is Prime Farmland. These maps are created and maintained by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Additional information on the FMMP is provided in this section under “Regulatory Framework,” “State.” The following summarizes the various lands mapped by the State.

- **Prime Farmland**—This has the best combination of physical and chemical features and is able to sustain long-term agricultural production. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields and it must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance**—This is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland**—This has lesser-quality soils and is used for the production of the state’s leading agricultural crops. The land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must also have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance**—This is of importance to the local agricultural economy, as determined by each county’s board of supervisors and a local advisory committee.

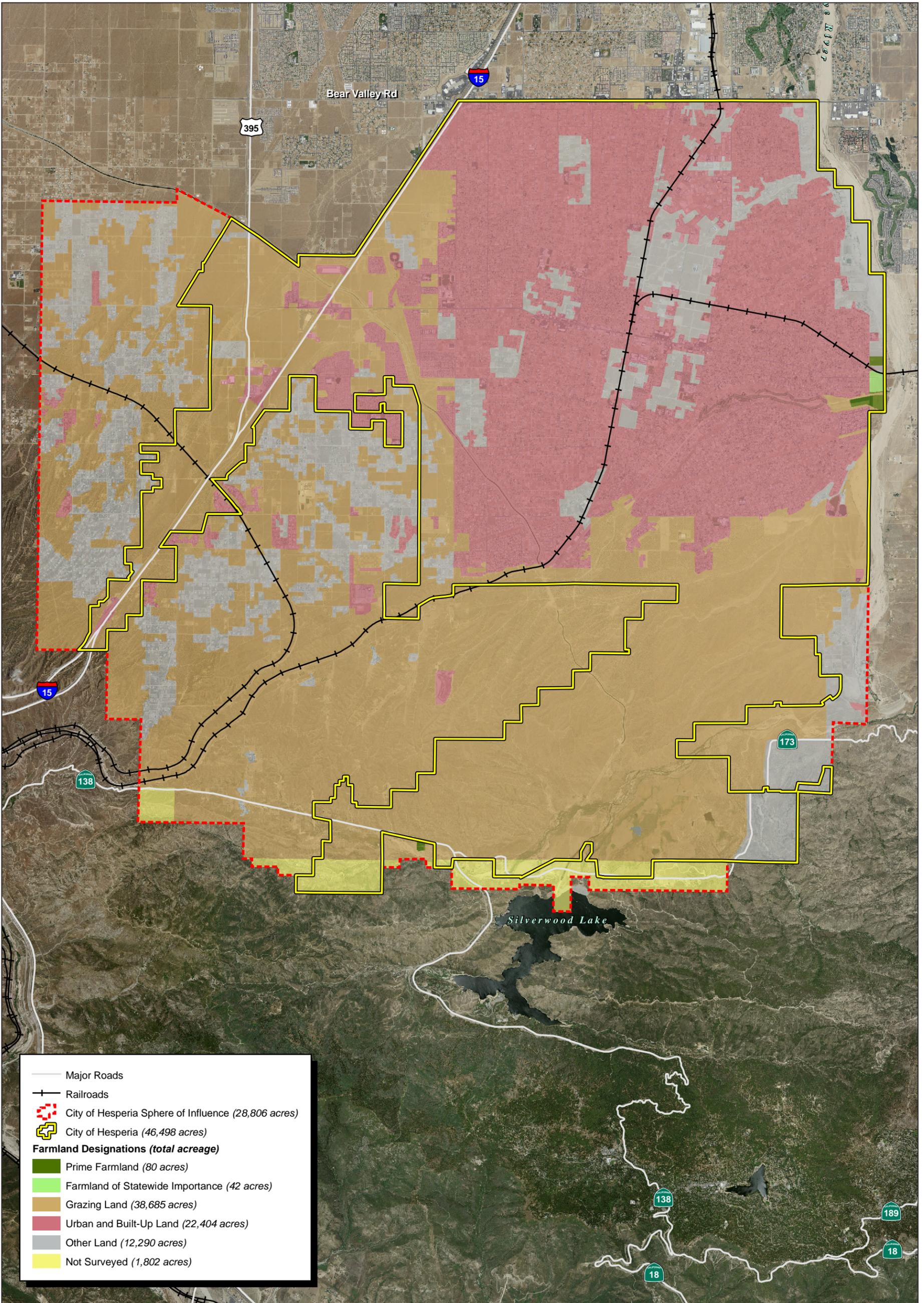
- **Grazing Land**—This has existing vegetation that is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- **Urban and Built-Up Land**—This land is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad, and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land**—This land is not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines or borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
- **Water**—These are areas with perennial water bodies with an extent of at least 40 acres.

Although commercial agricultural farming has not been prominent in the City since 1888, the City of Hesperia and SOI contain a small amount of farmland as defined by the State FMMP. See Figure 4.8.2-1 (Important Farmland) for locations and total acreages of designated farmlands within the City of Hesperia and SOI. As can be seen in Figure 4.8.2-1, the City of Hesperia and SOI contains designated Prime Farmland (approximately 80 acres), Farmland of Statewide Importance (approximately 42 acres), Grazing Land, (approximately 38,685 acres), Urban and Built-Up Land (approximately 22,404 acres), and Other Land (approximately 12,290 acres). Additionally, according to the FMMP, the southern portion of the City of Hesperia and SOI (within the San Bernardino Mountain range), approximately 1,802 acres, is not surveyed and is not used, nor is it suitable for agriculture. See Table 4.8.2-1 (Important Farmland in Hesperia) for important farmland designation and total acreages within the City of Hesperia and SOI.

The area located at the intersection of the Mojave River and the Atchison, Topeka, and Santa Fe Railroad contains approximately 40 acres of active prime farmland and is currently under cultivation with alfalfa. Land that were once used for agricultural and crop production within the City of Hesperia have transformed into large residential lots with animal keeping and equestrian activities. Therefore, a very small portion of land is being retained as agricultural in the City.

Williamson Act Contract

The SOI contains a small amount of farmland under the California Land Conservation Act of 1965 (the Williamson Act, Government Code Sections 51200 through 51297.4). See Figure 4.8.2-2 (Williamson Act Map) for locations and total acreages of farmland under Williamson Act within the SOI. As can be seen in Figure 4.8.2-2, the SOI currently contains approximately 987 acres of farmland under Williamson Act contract, and are located within the southwest portions of the SOI.



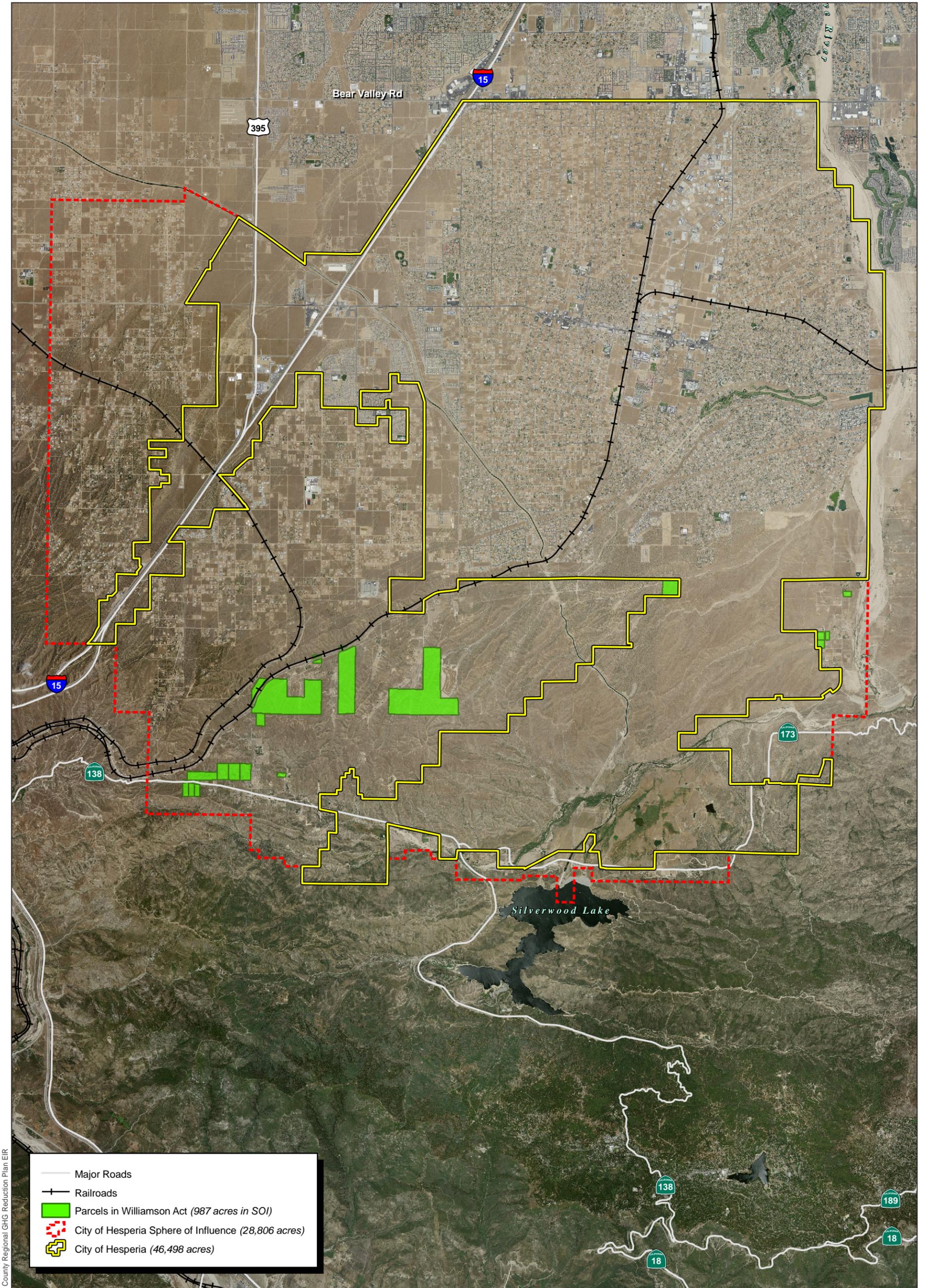
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Source: Hesperia General Plan Draft Environmental Impact Report, May 2010.



Figure 4.8.2-1
Important Farmland



- Major Roads
- +— Railroads
- Parcels in Williamson Act (987 acres in SOI)
- ⊞ City of Hesperia Sphere of Influence (28,806 acres)
- ⊞ City of Hesperia (46,498 acres)



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010.

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Figure 4.8.2-2
Williamson Act Map

Type	Acres in Hesperia	Acres in SOI	Total
Farmland of Statewide Importance	41.83	—	41.83
Prime Farmland	69.83	10.13	79.96
Grazing Lands	19,293.52	19,391.74	38,685.26
Urban and Built-Up Land	21,654.45	749.54	22,403.99
Other Land	4,825.62	7,464.10	12,289.72
Not Surveyed	612.37	1,190.04	1,802.41
Total	46,497.62	28,805.55	75,303.18

SOURCE: California Department of Conservation, Farming Mapping and Monitoring Program (2006).

■ 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

Hesperia Municipal Code

The City of Hesperia Municipal Code provides A-1 or limited agricultural districts, to protect and encourage those uses which are customarily conducted in areas which are not yet appropriate or suited for urban development or which should be permanently set aside for light agricultural purposes. The A-2 or general agricultural districts protect and encourage those uses which are customarily conducted in areas which are not yet appropriate or suited for urban development or which should be permanently set aside for general agricultural purposes. In addition, there are some agricultural uses such as the cultivation of food or fiber or the grazing or pasturing of livestock that are permitted in the Rural Residential (RR) District.

■ 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 Dept. 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 Hesperia.

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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Implementation of the Regional Reduction Plan includes densification and development of transit oriented development near transit stations in developing the Regional Sustainable Communities Strategy (SCS) and commercial/residential mixed-use development within the urbanized portions of Hesperia, but these areas near transit or urbanized mixed-use development do not include changing any existing agricultural lands. In addition, the Regional Reduction Plan includes energy efficiency retrofits of existing buildings, but does not convert any agricultural use to a nonagricultural use. In addition, the Regional Reduction Plan includes renewable energy generation facilities. The renewable energy generation facilities on existing agricultural land would be complementary to the agricultural use and not be the primary use on agricultural land, such as a solar or wind farm. As an example, a large dairy might include photovoltaic (PV) solar panels on the rooftops and a methane capture system that collects methane as a renewable fuel. However PV solar and the methane capture system described in this example would not change or convert agricultural land to non-agricultural use or in any way degrade the dairy farm as an agricultural use. Therefore, implementation of the proposed Regional Reduction Plan would not convert any of the existing 122 acres of agricultural use to nonagricultural use, which includes all California Resource Agency designated Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. 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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Implementation of the Regional Reduction Plan includes densification and development near transit stations and within urbanized portions of Hesperia, but does not include conversion of agricultural land that would conflict with existing Williamson Act Contracts. 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 Hesperia is urbanized and does not contain areas classified as timberland, zoned as timberland, or considered forested with timber. 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 Hesperia is urbanized and does not contain 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 Grand Terrace 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

California Department of Conservation, Division of Monitoring Program. 2006. *San Bernardino County Important Farmland*.

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

4.8.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a), the associated environmental impact report (2010b), the Air Quality Analysis Report (2010c), and the City of Hesperia Climate Action Plan (2010d). 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 of Hesperia 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 Gabriels 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.

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). 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.

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_x), sulfur dioxide (SO₂), coarse inhalable

particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. VOC and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) 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 (CO₂), 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 4.8.7 [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 O₃ (SCAQMD 2005).

Nitrogen oxides (NO_x) serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens (SCAQMD 2005).

NO₂ is a by-product of fuel combustion. The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. There is some indication of a relationship between NO₂ 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). NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ also contributes to the formation of PM₁₀, PM_{2.5}, and O₃ (SCAQMD 2005).

Sulfur dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO₂. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. A primary source of SO₂ emissions is high-sulfur-content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO₂ (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 (California 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 the Hesperia-Olive Street monitoring station (AQS # 060714001). Air Quality data is available for 2006 through 2011. The pollutants measured at the Hesperia-Olive Street station include O₃ and PM₁₀. The next closest station that monitors NO₂, SO₂, CO, and PM_{2.5} is the Victorville station (AQS #060710306), located less than 5 miles to the north of the northern edge of the City of Hesperia. The air quality data monitored, including federal and state air quality standards for 2007 through 2011 are presented in Table 4.8.3-1 (Ambient Air Quality Monitoring at Victorville Station). All data is from the Victorville station, with the exception of O₃ and PM₁₀ data. The data show recurring violations of both the state and federal O₃ standards. The data also indicate that the area regularly exceeds the state and federal PM₁₀ standards. The CO, SO₂, and NO₂ standards have not been violated in the last 5 years at the stations.

Table 4.8.3-1 Ambient Air Quality Monitoring at Victorville Station					
Pollutant/Standard	Number of Days Air Quality Standards Were Exceeded per Year and Maximum Level of Concentrations in Each Year				
	2007	2008	2009	2010	2011
Ozone (O₃)^a					
State 1-Hour ≥ 0.09 ppm	24	29	18	15	24
State 8-Hour ≥ 0.07 ppm	75	80	64	66	101
Federal 8-Hour ≥ 0.075 ppm	47	58	40	42	67
Maximum 1-Hour Average Concentration (ppm)	0.132	0.132	0.123	0.119	0.132
Maximum 8-Hour Average Concentration (ppm)	0.110	0.107	0.101	0.102	0.114
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
Nitrogen Dioxide (NO₂)^b					
State 1-Hour ≥ 0.18 ppm ^c	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.071	0.074	0.064	0.137	0.075
Sulfur Dioxide(SO₂)^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
Suspended Particulates (PM₁₀)^b					
State 24-Hour > 50 µg/m ³	4	2	6	0	0
Federal-24 Hour > 150 µg/m ³	1	2	1	0	0
Maximum 24-Hour Average Concentration (µg/m ³)	358	285.5	307.2	49	110.2
Fine Particulates (PM_{2.5})^b					
Federal-24 Hour ≥ 35 µg/m ³	0	0	0	0	0
Maximum 24-Hour Average Concentration (µg/m ³)	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/m³= micrograms per meter cubed

a. Data obtained from the MDAQMD Hesperia-Olive Street Monitoring Station (AQ5 #060714001).

b. Data obtained from the Victorville Monitoring Station (AQ5 #060710306).

c. California ARB updated the state nitrogen dioxide standard in 2007 from 0.25 ppm to 0.18 ppm.

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.

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 4.8.3-2 (State and Federal Ambient Air Quality Standards) shows the California Ambient Air Quality Standards and NAAQS for each of the criteria pollutants.

■ 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.

Table 4.8.3-2 State and Federal Ambient Air Quality Standards				
<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>Federal Primary Standard</i>	<i>Major Sources</i>
Ozone (O ₃) ^a	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 ₂) ^b	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 ₁₀)	Annual Arithmetic Mean	20 µg/m ³	—	Dust from agricultural and construction, combustion, natural activities
	24 hours	50 µg/m ³	150 µg/m ³	
Fine Particulates (PM _{2.5}) ^c	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	Primarily from Internal combustion engines
	24 hours	—	35 µg/m ³	
Lead (Pb)	Monthly	1.5 µg/m ³	—	Lead smelters and lead battery manufacturing & recycling
	Quarterly	—	1.5 µg/m ³	
Sulfates (SO ₄)	24 hours	25 µg/m ³		Industrial processes

SOURCE: California ARB (2012).

ppm = parts per million; µg/m³ = micrograms per meter cubed

a. USEPA recently updated the 8-hour O₃ standard from 0.8 ppm to 0.075 ppm.

b. California ARB updated the state NO₂ standard in 2007 from 0.25 ppm to 0.18 ppm.

c. USEPA recently updated the 24-hour PM_{2.5} standard from 65 µg/m³ to 35 µg/m³.

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 (PM₁₀, PM_{2.5}, 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 4.8.3-3 (Attainment Status of MDAB) shows the attainment status for criteria air pollutants in the MDAB. As shown in Table 4.8.3-3, the MDAQMD is a designated nonattainment basin for O₃, PM₁₀, and PM_{2.5}. In 1991, the San Bernardino County Air Pollution Control District (APCD) prepared the Air Quality Attainment Plan (AQAP) for O₃. This plan established programs and control strategies to achieve the O₃ 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.

In 1994, the USEPA designated most of the Mojave Desert as nonattainment for PM₁₀ based on violations of standards between 1989 and 1991. The MDAQMD prepared the Mojave Desert Planning Area (MDPA) federal PM₁₀ Attainment Plan in 1995 to provide dust control programs to meet federal PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 4.8.3-4 (MDAQMD Attainment Plans) lists the attainment plans applicable to the project area.

Table 4.8.3-3 Attainment Status of MDAB

<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 ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Suspended Particulates (PM ₁₀)	Nonattainment	Nonattainment
Fine Particulates (PM _{2.5})	Nonattainment	Attainment
Lead	Attainment	Attainment
Sulfates (SO ₄)	Attainment	Unclassified

SOURCE: California ARB (2012).

Table 4.8.3-4 MDAQMD Attainment Plans

<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^a</i>
1991 Air Quality Attainment Plan	8/26/91	State 1-hour O ₃	San Bernardino County portion	NO _x and VOC	1994
Further Progress Rate-of-Progress Plan	10/26/94	Federal 1-hour O ₃	Southeast Desert Modified AQMA	NO _x and VOC	2007
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	10/26/94	Federal 1-hour O ₃	Southeast Desert Modified AQMA	NO _x and VOC	2007
Searles Valley PM ₁₀ Plan	6/28/95	Federal daily and annual PM ₁₀	Searles Valley Planning Area	PM ₁₀	1994
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	7/31/95	Federal daily and annual PM ₁₀	Mojave Desert Planning Area	PM ₁₀	2000
Triennial Revision to the 1991 Air Quality Attainment Plan	1/22/96	State 1-hour O ₃	Entire District	NO _x and VOC	2005
Attainment Demonstration, Maintenance Plan, and Redesignation Request for the Trona Portion of the Searles Valley PM ₁₀ Nonattainment Area	3/25/96	Federal daily and annual PM ₁₀	Searles Valley Planning Area	PM ₁₀	N/A
2004 Ozone Attainment Plan (State and Federal)	4/26/04	Federal 1-hour O ₃	Entire District	NO _x and VOC	2007
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	6/9/08	Federal 8-hour O ₃ (84 ppb)	Western Mojave Desert Nonattainment Area (MDAQMD portions)	NO _x 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 4.8.3-3 (Attainment Status of MDAB).

Local

Hesperia General Plan

The Hesperia General Plan contains policies that would reduce air pollutant emissions and reduce exposure of air pollution² include the following:

- Policy CI-5.1** Provide a range of travel modes to provide alternatives to the use of single occupancy vehicles.
- Policy CI-5.2** Work with CALTRANS to provide park-and-ride lots at key locations near existing and proposed interchanges with Interstate 15.
- Policy CI-5.3** Continue to participate in the Victor Valley Transit Authority to ensure there are adequate routes to provide efficient, adequate, safe service for the community.
- Policy CI-5.4** Continue to work with and support Victor Valley Transit Authority in providing transit facilities for elderly and handicapped residents.
- Policy OS-6.1** Provide an interconnecting plan in conjunction with surrounding agencies to provide regional trails.
- Policy OS-6.3** Provide a comprehensive network trails plan that connects residents to open space areas, recreational facilities, and areas of interest.
- Policy LU-3.5** Encourage the beautification of pedestrian areas, particularly through the use of landscaping.
- Policy LU-6.1** Facilitate the use of green building standards and Leadership in Energy and Environmental Design (LEED) in both private and public projects.
- Policy LU-6.2** Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.
- Policy LU-6.3** Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment.
- Policy LU-6.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
- Policy LU-6.5** Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
- Policy LU-6.6** Encourage in-fill development on lands located adjacent to existing residential areas and utilities to maximize the efficiency of land use and infrastructure.
- Policy LU-6.7** Encourage the development of public facilities in a manner, which assures adequate levels of service, while remaining compatible with existing and future land uses.

² 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 CN-7.1** Explore the potential for a green building program in the City to educate the development community and require the conservation of natural resources.
- Policy CN-7.2** Incorporate the use of green building standards and LEED or similar programs in both private and public projects.
- Policy CN-7.3** Provide incentives like technical assistance or low-interest loans for projects that are energy efficient and contain energy conservation measures.
- Policy CN-7.4** Educate the public about energy conservation techniques.
- Policy CN-7.5** Coordinate with the local energy providers in developing policies and procedures to reduce energy consumption in existing and future developments.
- Policy CN-7.6** Encourage residents and businesses to utilize the incentives provided by the local energy providers to retrofit their buildings and businesses for energy efficiency and conservation.
- Policy CN-7.7** Promote energy conservation through site layout, building design, natural light, and efficient mechanical and electrical products in development.
- Policy CN-7.9** Promote sustainable principles in development that conserves natural resources such as air quality and energy resources.
- Policy CN-8.4** Promote the utilization of alternative energy resources such as wind and solar in new development.
- Policy CN-8.6** Preserve land resources for the utilization of energy resources, including wind and solar energy resources.

The Hesperia Climate Action Plan (CAP) contains various implementation strategies that would also reduce air pollutant emissions. Many of the strategies attempt to encourage people to drive less and use alternative transportation through the City's authority over land use. These strategies include:

- Strategy CAP-1** Reduce emissions from new developments through the California Environmental Quality Act process.
- Strategy CAP-2** Encourage mixed use development in new development and redevelopment areas.
- Strategy CAP-3** Increase transit use.
- Strategy CAP-4** Promote compact development by protecting open space and encouraging infill and redevelopment of underutilized parcels in urbanized areas.
- Strategy CAP-5** Provide pedestrian connections in new and existing development to improve pedestrian mobility and accessibility.
- Strategy CAP-6** Increase bicycle use through a safe and well-connected system of bicycle paths and end of trip facilities.
- Strategy CAP-7** Use traffic calming measures to improve traffic flow, pedestrian orientation, and bicycle use.
- Strategy CAP-8** Use parking facility designs and parking management to reduce vehicle trips.
- Strategy CAP-9** Increase the use of energy conservation features and renewable sources of energy.

Strategy CAP-10 Reduce energy use from the transport and treatment of water.

Strategy CAP-11 Improve the City’s recycling and source reduction programs to make continued progress in minimizing waste.

Strategy CAP-12 Participate in regional programs and initiatives that reduce greenhouse gas emissions.

Strategy CAP-13 Reduce greenhouse gas emissions from City government operations.

Strategy CAP-14 Improve the City’s adaptation to climate change effects.

■ 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 4.8.3-5 (MDAQMD Thresholds of Significance).

<i>Pollutant</i>	<i>Daily Threshold (lb/day)</i>
Volatile Organic Compounds (VOC; an ozone precursor)	137
Nitrogen Oxides (both NO ₂ and NO _x as an ozone precursor)	137
Sulfur Oxides (SO _x , both SO ₂ and SO ₄)	137
Carbon Monoxide (CO)	548
Suspended Particulates (PM ₁₀)	82
Fine Particulates (PM _{2.5})	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 Hesperia 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 4.8.3-4 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 O₃ and federal PM₁₀ 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 Hesperia that are designed to increase energy efficiency and reduce emissions from construction and landscaping equipment. 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 Hesperia). 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 O₃ 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 O₃ precursors. 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_x, CO, and SO_x emissions is the operation of construction equipment. The primary sources of particulate matter (PM₁₀ and PM_{2.5}) 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 O₃ 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 Hesperia has chosen in implementing the reduction measures in the Regional Reduction Plan, which would reduce criteria pollutants as well as GHG emissions. Table 4.8.3-6 (City of Hesperia 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.

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 Hesperia. Therefore, the impact would be *less than significant*. No mitigation is required.

Table 4.8.3-6 City of Hesperia Regional Emissions (lb/day)

<i>Emission Sources</i>	VOC	NO _x	CO	SO _x ^a	PM ₁₀	PM _{2.5}
Existing Land Use Emissions (2009)						
Transportation	2,441	12,113	23,598	—	1,820	728
Area Sources:						
Natural Gas	64	841	420	—	2	2
Hearth	47,631	745	57,062	—	7,952	7,654
Landscaping	258	14	1,435	—	4	4
Consumer Products/ Architectural Coatings	2,018	0	0	—	0	0
<i>Subtotal Area Sources</i>	49,971	1,600	58,971	—	7,958	7,660
Total Existing Emissions^b	52,412	23,133	82,515	—	9,778	8,389
Hesperia General Plan (2030)						
Transportation	1,101	4,150	9,711	—	2,266	656
Area Sources:						
Natural Gas	171	2,259	1,237	—	4	4
Hearth	110,090	1,721	131,887	—	18,379	17,690
Landscaping	573	36	3,178	—	8	8
Consumer Products/ Architectural Coatings	4,939	0	0	—	0	0
<i>Subtotal Area Sources</i>	115,773	4,016	136,302	—	18,391	17,702
Total Hesperia General Plan Emissions^b	116,874	8,166	146,013	—	20,657	18,358
Changes in Emissions with Regional Reduction Plan^c						
Transportation	-306	-3,367	-6,560	—	-506	-202
Area Sources:						
Natural Gas	-9	-122	-67	—	0	0
Hearth	-5,936	-93	-7,111	—	-991	-954
Landscaping	-31	-2	-171	—	0	0
Consumer Products/ Architectural Coatings	-266	0	0	—	0	0
<i>Subtotal Area Sources Changes</i>	-6,242	-217	-7,349	—	-992	-954
GHG Performance Standard ^d	-9,127	-638	-11,402	—	-1,613	-1,434
Total Changes to Emissions	-15,675	-2,008	-21,451	—	-3,235	-2,570
Emission Comparison						
Net General Plan Emissions with implementation of the Regional Reduction Plan	101,199	6,158	124,562	—	17,422	15,788
Estimated Regional Reduction Plan Percent Reduction in Air Pollution	-13%	-25%	-15%	—	-16%	-14%
MDAQMD Threshold	137	137	548	137	82	82
General Plan with Regional Reduction Plan Reductions Significant?	Yes	Yes	Yes	No	Yes	Yes
Regional Reduction Plan Significant?	No	No	No	No	No	No

SOURCE: City of Hesperia, *Air Quality Analysis Report for the Hesperia General Plan* (2010c).

lb/day = pounds per day

a. Insufficient information available for SO_x emissions in the Hesperia 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.

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 4.8.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Hesperia. 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 (O₃, 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.

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?
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As shown in Table 4.8.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Hesperia. 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 Hesperia, 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 Hesperia; however, the closest station is located in the City of Victorville. Majority of bus fleet in Chino runs on compressed natural gas (CNG), which reduces particulate matter emissions by more than 80 percent. Additionally, the number of electric engine buses is increasing the region. 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 Hesperia 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.

■ References

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- . 2012. Staff Report: Initial Statement of Reasons for Rulemaking, Proposed 2012 Amendments to Area Designations for State Ambient Air Quality Standards, Attachment C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards, July 20.
- . 2013. iADAM: Air Quality Data Statistics. <http://www.arb.ca.gov/adam/index.html> (accessed March 15, 2013).
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- . 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.
- . 2010c. *Air Quality Analysis Report for the Hesperia General Plan Update*, May.
- . 2010d. *City of Hesperia Climate Action Plan*, July.
- . 2012. *City of Hesperia Municipal Code*, July.
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- . 2011. *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, August.
- San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.
- South Coast Air Quality Management District (SCAQMD). 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May.

4.8.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

As set forth in CEQA Guidelines Section 15125(a) this section describes the physical environmental conditions in the City at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the Lead Agency and the City of Hesperia will determine whether a Biological Resources impact is significant.

Existing Habitats and Vegetation Communities within the City of Hesperia

The City is located in a biological area defined by the Mojave Desert and the San Bernardino National Forest, which supports a diverse range of biological resources. A large portion of the City has been disturbed and/or developed and is unlikely to contain vegetation that would provide suitable habitat for sensitive species. Areas of the City that may potentially contain biological resources include the washes west of the Oro Grande Wash, undeveloped land along Interstate 15 (I-15), the West Fork of the Mojave River, and undeveloped land in Summit Valley. Figure 4.8.4-1 (Habitats in the City of Hesperia) shows the location of vegetation and plant communities in the City and its surrounding sphere of influence (SOI). The habitats found in the City are described below.

Southern Sycamore Alder Riparian Woodland

This community consists of a tall, open, broad-leaved, winter-deciduous streamside woodland dominated by sycamore (*Platanus racemosa*) and white alder (*Alnus rhombifolia*). Stands seldom form closed canopy forests. This community occurs along rocky streambeds subject to occasional high intensity flooding. Alders increase in abundance on more perennial streams, while sycamores favor more intermittent streams. This community occurs in Grass Valley Creek and Little Horsethief Canyon, which drains the northern foothills of the San Bernardino Mountains. In the area of Grass Valley Creek, the interstitial vegetation between the sycamore trees appears as an alluvial fan, with scattered sage scrub species such as Eastern Mojave buckwheat, thick-leaved yerba santa (*Eriodictyon crassifolium*), Mohave yucca (*Yucca schidigera*), and California juniper. It may also occur sporadically in other unnamed blue-line streams that drain the San Bernardino Mountains.

Mojave Riparian Forest

Mojave riparian forest is a relatively open, broad-leaved, winter-deciduous streamside forest dominated by Fremont cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and red willow (*Salix laevigata*). The open canopy allows a dense shrubby understory of Torrey's saltbush (*Atriplex*

lentiformis ssp. *torreyi*), common rabbitbrush (*Chrysothamnus nauseosus*), interior rose (*Rosa woodsii*), and sandbar willow (*Salix exigua*). Soils are flat, fine-grained, subirrigated alluvium along perennial desert rivers. This plant community occurs in Horsethief Canyon and the West Fork of the Mojave River below the spillway for Silverwood Lake.

Mojave Creosote Bush Scrub

Mojave creosote bush scrub consists of shrubs 0.5 to 3 meters tall that are widely spaced, usually with bare ground between them. The dominant shrub species include creosote bush (*Larrea tridentate*) and white bursage (*Ambrosia dumosa*). Many species of ephemeral herbs may flower in late March and April if winter rains are sufficient. Other, less numerous species of annuals appear following summer thundershowers. It occurs on well-drained secondary soils with very low available water holding capacity, on slopes, fans, and valleys rather than upland sites with thin residual soils or sites with high soil salinity. It transitions at higher elevations with Shadscale Scrub, and Joshua Tree Woodland; at lower elevations or more osmotic sites with Desert Chenopod Scrub.

Mojave Mixed Woody Scrub

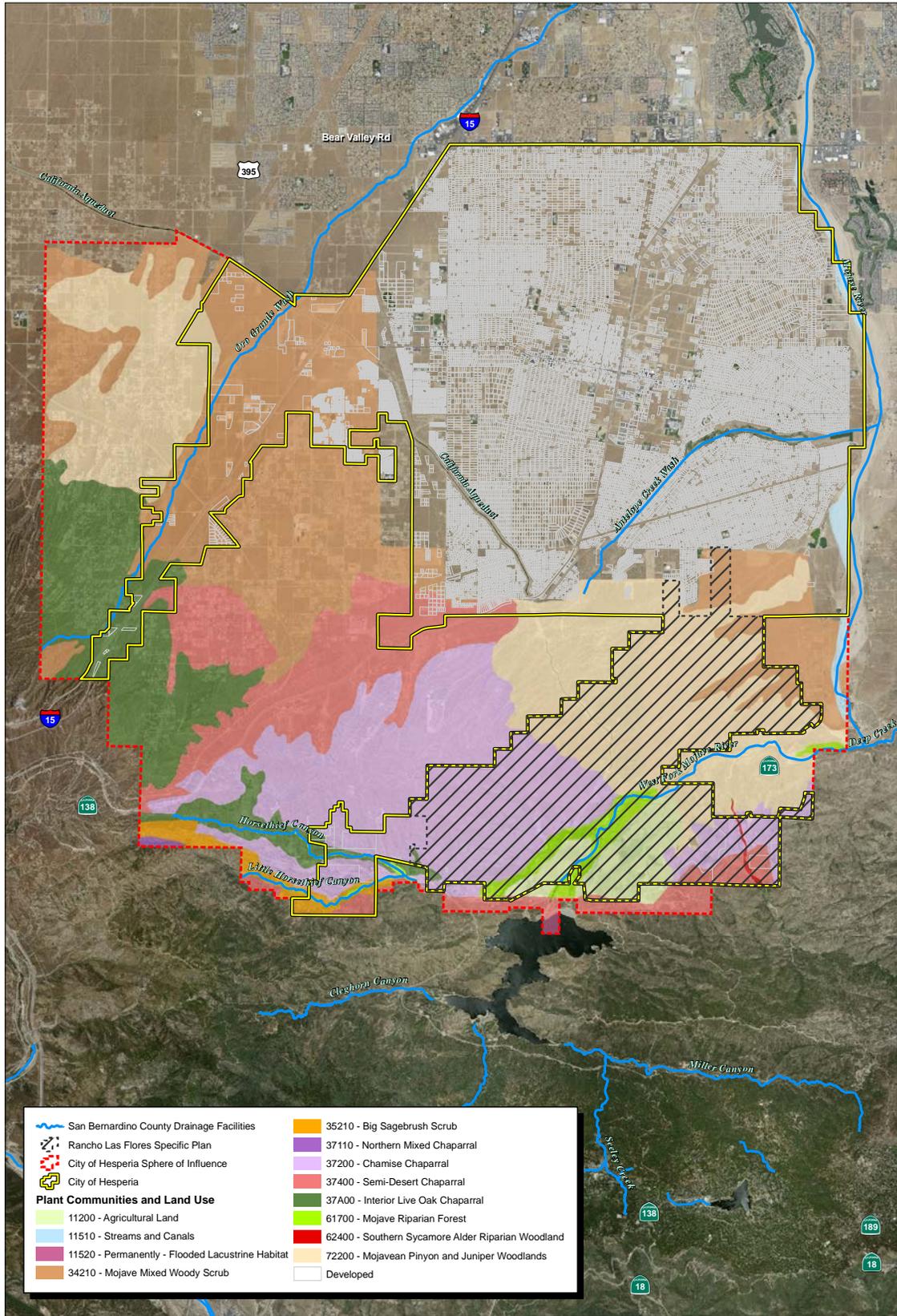
Mojave mixed woody scrub is a complex scrub, open enough to be passable, and usually characterized by Joshua tree (*Yucca brevifolia*), Eastern Mojave buckwheat (*Eriogonum fasciculatum polifolium*), and bladderpod (*Isomeris arborea*). Soils are very shallow, overly drained, often rolling to steep and usually derived from granitic parent materials. Mojave mixed woody scrub generally has extremely low water holding capacity, mild alkalinity, and are not especially saline. This plant community mixes on deeper soils (with higher water holding capacity) or at cooler elevations with Great Basin Scrubs, Blackbush Scrub, or Pinyon Woodlands; at warmer elevations with Creosote Bush Scrub. Mojave mixed woody scrub generally occurs in the southern and northwest portions of Hesperia.

Chamise Chaparral

Chamise chaparral is a 1- to 3-meter-tall chaparral dominated by chamise (*Adenostoma fasciculatum*). This community is adapted to repeated fires by crown sprouting. Mature stands are densely interwoven with very little herbaceous understory or litter. This plant community is similar to Upper Sonoran Mixed Chaparrals, but occurs on shallower, drier soils or at somewhat lower elevations. Chamise chaparral occurs in the southern area of the City.

Northern Mixed Chaparral

Northern mixed chaparral includes broad-leaved sclerophyll shrubs, 2 to 4 meters tall, forming dense, often nearly impenetrable stands dominated by scrub oak (*Quercus berberidifolia*), chamise, and any one of several taxa in Arctostaphylos and Ceanothus. Plants are typically deep-rooted. There is usually little or no understory vegetation, but often leaf litter accumulates. This plant community is adapted to repeated fires, to which many species respond by crown sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs and re-establishment of dominance by the original shrub species. Slopes where this community occurs are usually dry, rocky, and often steep with little soil. Slopes are typically north-facing. Northern mixed chaparral occurs in the foothills to the southwest of the City in its SOI.



Source: City of Hesperia 2010b.

7,000 3,500 0 7,000



Figure 4.8.4-1
Habitats in the City of Hesperia

Semi-Desert Chaparral

Semi-desert chaparral is very similar to Northern Mixed Chaparral, but is more open and not as tall. Several of the dominant taxa (*Juniperus*, *Eriogonum*, *Opuntia*, etc.) are sclerophyllous shrubs. It is also similar to Red Shank Chaparral, but drier and hotter in the summer. Semi-desert chaparral transitions with Mojavean Pinyon-Juniper Woodlands, but occurs on rockier soils or recently burned sites. It is less fire-prone than other chaparrals due to lower fuel loads. Semi-desert chaparral generally occurs southwest of the developed area of Hesperia.

Interior Live Oak Chaparral

Interior live oak chaparral is dense and tall (to 20 feet) dominated by interior live oak (*Quercus wislizenii*) and inland scrub oak (*Quercus berberidifolia*) with several other sclerophyllous shrubs also in the canopy. Interior live oak stump sprouts readily following fire. The persistent leaf litter and dense canopies preclude much understory in this community. This is a fairly mesic chaparral of valleys and foothills away from the immediate coast, especially in Lower Montane Coniferous Forests where it frequently is a fire-climax. Interior live oak chaparral occurs in the foothills in the southwest corner of the City.

Mojavean Pinyon and Juniper Woodlands

Mojavean pinyon and juniper woodlands are open woodland dominated either by single-leaf pinyon pine (*Pinus monophylla*) with an open shrubby understory of species commonly found in adjacent non-forested stands, or by California juniper (*Juniperus californicus*), with understory of typical Mojave Mixed Scrub and Steppe species. Understories are more diverse than in most Pinyon-Juniper types, and many actually exceed tree cover. Dominant shrubs include big sagebrush (*Artemisia tridentata*) and curl-leaf mountain mahogany (*Cercocarpus ledifolius*). Mojavean pinyon and juniper woodlands occur in desert mountain ranges, usually between about 4,000 and 8,000 feet. The pinyon type is more developed on steeper, very dry slopes, while the juniper type is better developed on gentle slopes or alluvium, and usually at slightly lower elevations. The plant community also transitions between Joshua Tree Woodland and Mojave Creosote Bush Scrub on drier soils at lower elevations. Mojavean pinyon and juniper woodlands generally occur south and west of the developed areas of the City.

Big Sagebrush Scrub

Big sagebrush scrub includes mostly soft-woody shrubs, 0.5 meter tall, usually with bare ground underneath and between shrubs. Big sagebrush is the dominant plant species. Growth occurs mostly in late spring and early summer and this community is dormant in winter. Some species in this plant community flower in late spring (*Coleogyne*, *Purshia*), and others in early fall (*Artemisia*, *Chrysothamnus*). This community occurs on a wide variety of soils and terrain, from rocky, well-drained slopes to fine-textured valley soils with a high water table and may be colder (from cold air drainage), drier, or with less well-drained more alkaline soil than Pinyon-Juniper Woodland, a frequent associate. Big sagebrush scrub occurs in the foothills in the southwest corner of the City.

Permanently Flooded Lacustrine Habitat

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water, including both the near-shore (limnetic) and deepwater habitat (littoral). Using this classification

incorporates both the lakes and reservoir classes that exceed 40 acres and are deeper than 6.6 feet. This includes Silverwood Lake and Hesperia Lake.

Sensitive Biological Resources

Sensitive biological resources include vegetation types and habitats that are either unique, of relatively limited distribution in a region, or of particularly high value to wildlife. These resources include a variety of plant and animal species that are specialized and endemic to a particular habitat type. Due to loss of habitat, some of these species have been designated by federal and state government resource agencies as threatened or endangered. Species listed as threatened are those whose numbers have dropped to such low levels and/or whose populations are so isolated that the continuation of the species could be jeopardized. Endangered species are those with such limited numbers or subject to such extreme circumstances that they are considered in imminent danger of extinction.

Other government agencies and resource organizations also identify sensitive species, those that are naturally rare and that have been locally depleted and put at risk by human activities. While not in imminent danger of jeopardy or extinction, sensitive species are considered vulnerable and can become candidates for future listing as threatened or endangered. These include plants identified as sensitive by the California Native Plant Society (CNPS), wildlife considered as species of special concern, special animals, or fully protected species in California.

Figure 4.8.4-2 (Threatened and Endangered Species in Hesperia) provides the General Plan EIR map that presents the general locations of federal and state threatened and endangered species within the City as mapped from the California Natural Diversity Database (CNDDDB) (City of Hesperia 2010b). Figure 4.8.4-3 (Other Special-Status Species in Hesperia) provides the General Plan EIR map that presents the general locations of species that are classified as California Species of Concern and California Native Plant Society (CNPS) ranked plants as mapped from the CNDDDB (City of Hesperia 2010b). A summary of potential sensitive species is provided below. The CNDDDB search was conducted as part of preparation of the Biological Resources Assessment, City of Hesperia General Plan prepared by Michael Brandman Associates (MBA) in February 2010 (General Plan EIR Appendix C). The findings of the biological resources assessment are summarized below.

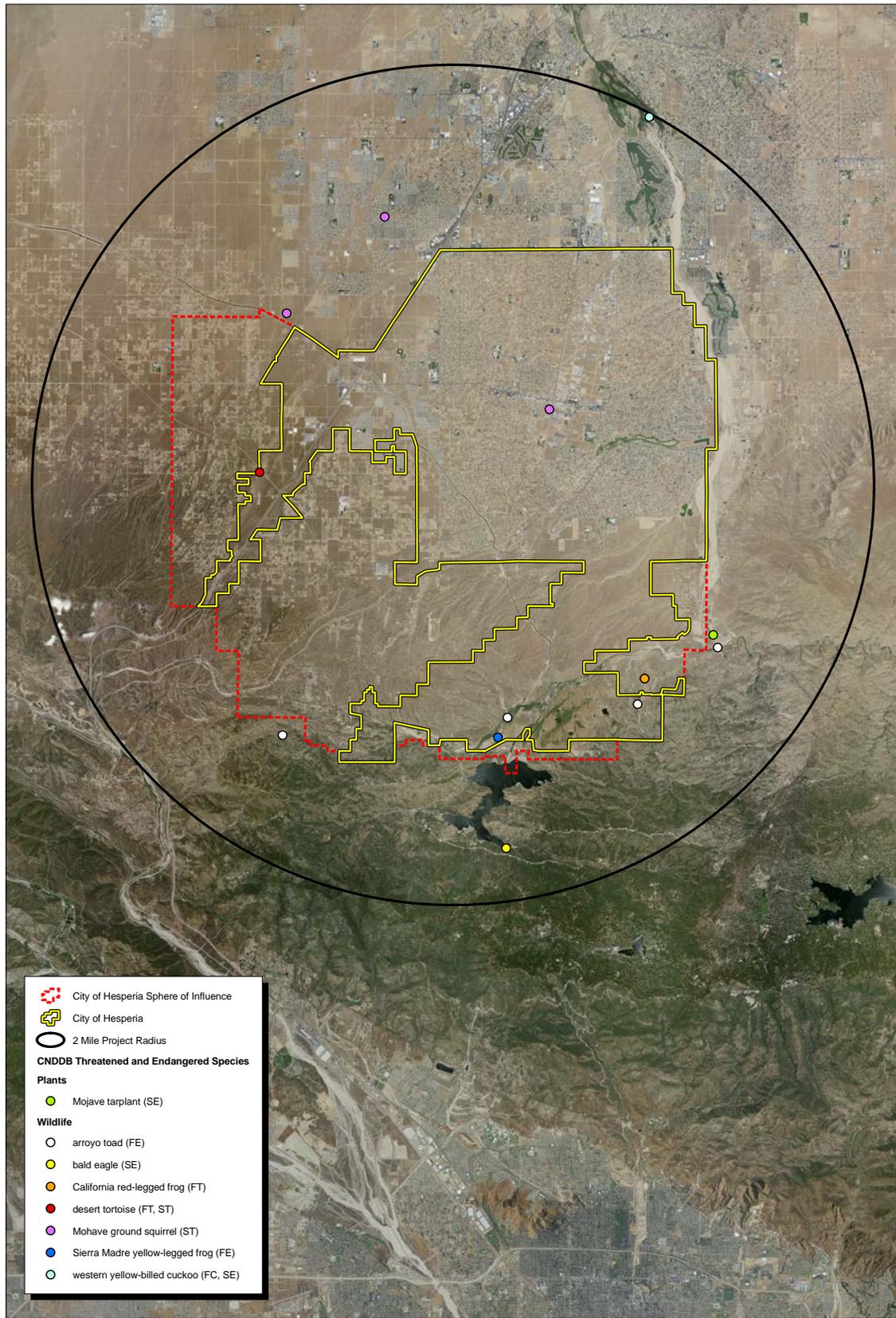
Sensitive Natural Communities

The City of Hesperia includes two sensitive natural communities that occur within riparian corridors. The habitats considered to be sensitive by the CDFW include Southern sycamore alder riparian woodland and Mojave riparian forest. These natural communities are described above in the discussion of Existing Habitats and Vegetation Communities within the City of Hesperia.

Sensitive Plants

Mojave Tarplant (*Deinandra mohavensis*)—State Endangered

The Mojave tarplant is a tall annual sunflower of open moist sites in arid regions near the margins of the desert. It blooms July to October and occurs at elevations between 640 and 1,600 meters. The Mojave tarplant occurs mostly in clay or silty soils that are saturated with water in winter and spring. Plants are

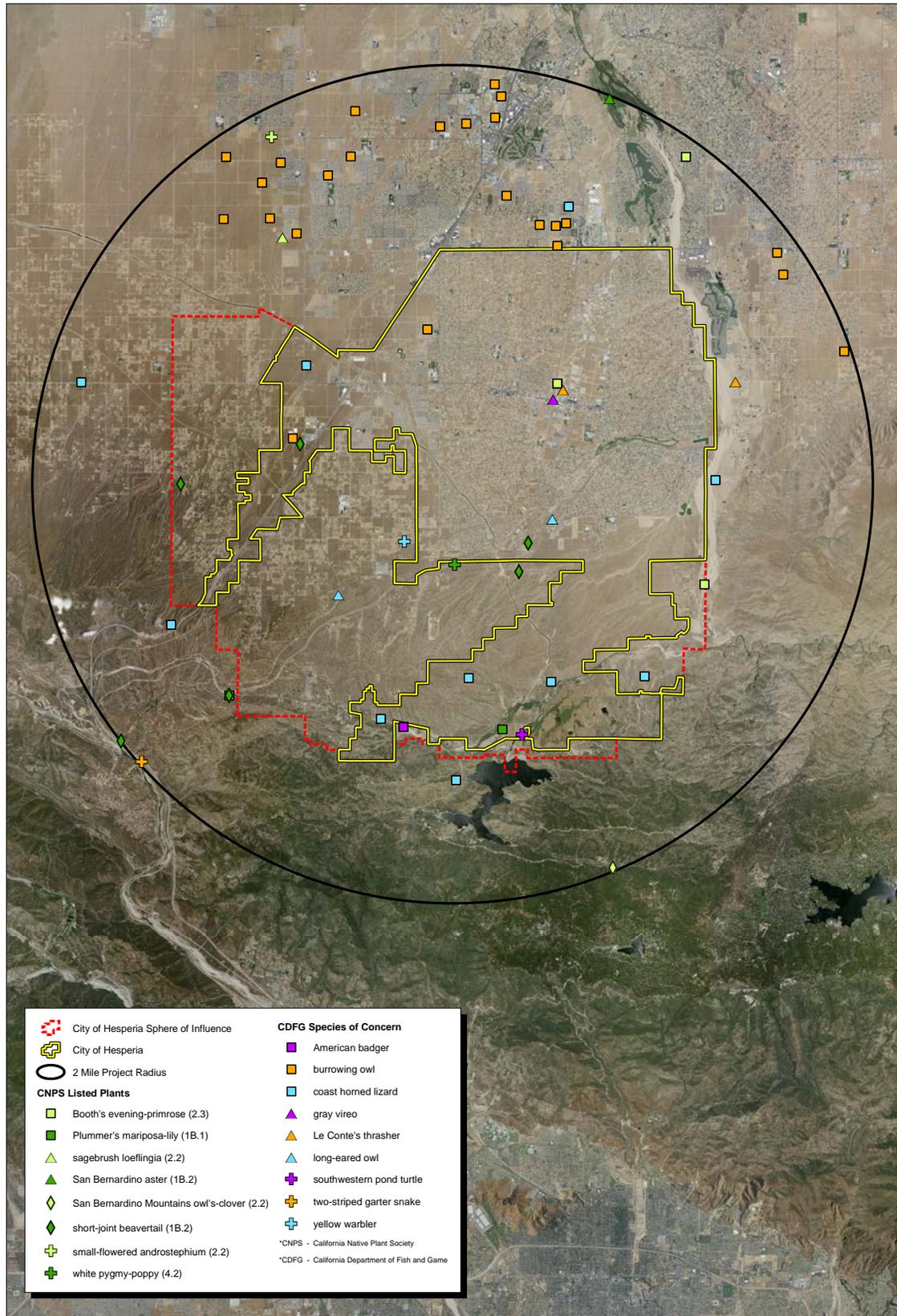


- - - City of Hesperia Sphere of Influence
 City of Hesperia
 2 Mile Project Radius
CNDDB Threatened and Endangered Species
Plants
● Mojave tarplant (SE)
Wildlife
 arroyo toad (FE)
● bald eagle (SE)
● California red-legged frog (FT)
● desert tortoise (FT, ST)
● Mohave ground squirrel (ST)
● Sierra Madre yellow-legged frog (FE)
 western yellow-billed cuckoo (FC, SE)

Source: City of Hesperia 2010b.



Figure 4.8.4-2
Threatened and Endangered Species in Hesperia



Source: City of Hesperia 2010b.



Figure 4.8.4-3
Other Special-Status Species in Hesperia

found along grassy swales, intermittent creeks, and at seeps. Occasional dwarfed plants are found in drier sites near occupied wet areas. This species seems to prefer areas where fairly substantial water supply is available at depth through the summer, but which are dry at the surface. The Mojave tarplant has not been found in the City in several years and it is unlikely that Mojave tarplant occurs within the Project Area.

Booth's Evening Primrose (*Camissonia boothii* ssp. *boothii*)—CNPS Rank 2.3

Booth's evening primrose is ranked by the CNPS as 2.3 (2 = rare, threatened, or endangered in California, but more common elsewhere; 0.3 = not very endangered in California). It occurs in Joshua tree woodland and pinyon juniper woodland at elevations from 900 to 2,400 meters. It blooms from April to September. This species may occur in the City where suitable habitat is present.

Plummer's Mariposa Lily (*Calochortus plummerae*)—CNPS Rank 1B.2

Plummer's mariposa lily is ranked by the CNPS as 1B.2 (1B = rare, threatened, or endangered in California and elsewhere; 0.2 = fairly threatened in California). This species occurs on rocky and sandy sites, typical of alluvial or granitic material, in coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest and valley and foothill grasslands at elevations from 90 to 1,610 meters. It is less common at higher elevations. This species flowers from May through July. Populations of Plummer's mariposa lily have been significantly reduced by development, and they continue to decline. This species has been recorded in the southern portion of the City (City of Hesperia 2010b).

Sagebrush Loefflingia (*Loefflingia squarrosa* var. *artemisiarum*)—CNPS Rank 2.2

Sagebrush loefflingia is ranked by the CNPS as 2.2 (2 = rare, threatened, or endangered in California, but more common elsewhere; 0.2 = fairly threatened in California). It occurs on sandy dunes and flats in Great Basin sagebrush scrub and Mojave Desert scrub between 700 and 1,615 meters. Specifically, sagebrush loefflingia is a plant of sandy or gravelly open areas, often occupying flats between shrubs and sandy roadsides. The species never occurs in shade under shrubs but always in exposed areas with full sun. It blooms in April through May. The species has been recorded approximately 2 miles north of the northern limits of the City, and may occur in the City where suitable habitat exists (City of Hesperia 2010b).

San Bernardino Aster (*Symphotrichum defoliatum*)—CNPS Rank 1B.2

San Bernardino aster is listed by the CNPS as 1B.2 (1B = rare, threatened, or endangered in California and elsewhere; 0.2 = fairly threatened in California). It grows in grasslands, wetlands, coastal sage scrub and oak woodlands between 0 and 4,921 feet. In the City, it would most likely be observed within wetland areas. It has been recorded in Mojave Narrows Park, but not within the City.

San Bernardino Mountains Owl's Clover (*Castilleja lasiorhyncha*)—CNPS Rank 2.2

San Bernardino Mountains owl's clover is ranked by the CNPS as 2.2 (2 = rare, threatened, or endangered in California, but more common elsewhere; 0.2 = fairly threatened in California). It occurs in meadows and pebble plain within yellow pine forest in the San Bernardino Mountains. San Bernardino

Mountains owl's clover has been observed in Miller Canyons which is approximately 2 miles south of the City above Silverwood Lake. It is unlikely that it would be found within the City.

Short-Joint Beavertail (*Opuntia basilaris* var. *brachyclada*)—CNPS Rank 1B.2

Short-joint beavertail is ranked by the CNPS as 1B.2 (1B = rare, threatened, or endangered in California and elsewhere; 0.2 = fairly threatened in California). It is known to occur in chaparral, Joshua tree woodland, Mojave Desert scrub, and pinyon-juniper woodland communities at elevations of 425 to 2,000 meters. It has been reported occurring in a wide variety of soils, from sandy to rocky, in open stream beds and on rocky slopes. Several populations have been discovered in the Oak Hills and Baldy Mesa areas, as well as Las Flores Ranch Horsethief Canyon, and Grass Valley Creek (City of Hesperia 2010b).

Small-Flowered Androstephium (*Androstephium breviflorum*)—CNPS Rank 2.2

Small-flowered androstephium is ranked by the CNPS as 2.2 (2 = rare, threatened, or endangered in California, but more common elsewhere; 0.2 = fairly threatened in California). It is a member of the lily family and is also called the pink funnel lily. It is found within creosote bush scrub and has been observed northwest of the City. It is unlikely to occur within the City.

White Pygmypoppy (*Canbya candida*)—CNPS Rank 4.2

White pygmypoppy is a small white-flowered annual and is ranked by the CNPS as 4.2 (4 = limited distribution; 0.2 = fairly threatened in California). It is found within creosote bush scrub and Joshua tree woodland. It has been observed in Antelope Canyon, northwest of the City.

Sensitive Wildlife

In addition to the species described below, Sierra Madre yellow-legged frog, California red-legged frog, and western yellow-billed cuckoo are included in the CNDDDB as potentially occurring in Hesperia. However, the Biological Resources Assessment for the General Plan EIR excluded these species from further analysis because the sightings of these species are historical and these three species have not been observed in the City in at least the last 20 years. They are considered extirpated within the City (City of Hesperia 2010b).

Desert Tortoise (*Gopherus agassizii*)—Federally Threatened

The desert tortoise is a large, herbivorous reptile found in portions of the California, Arizona, Nevada, and Utah deserts. In California, the desert tortoise occurs primarily within the creosote bush scrub, saltbush, and Joshua tree plant communities. The City does not overlap the 2002 desert tortoise range map and is included in the “no desert tortoise survey area” as mapped in the West Mojave Plan. Portions of the City's sphere of influence overlap the desert tortoise habitat area mapped in the San Bernardino County General Plan but are not within any Critical Habitat as designated by the U.S. Fish and Wildlife Service (USFWS). Desert tortoise is not likely to occur in the City of Hesperia.

Mohave Ground Squirrel (*Spermophilus mohavensis*)—State Threatened

The Mohave ground squirrel generally occurs in flat to moderate terrain. Substrates in occupied habitats have ranged from being very sandy to very rocky. The Mohave ground squirrel occupies all major desert scrub habitats types in the western Mojave Desert. It has been observed in Mojave Creosote Scrub, Desert Saltbush Scrub, Desert Sink Scrub, Desert Greasewood Scrub, Shadscale Scrub, and Joshua tree woodland. Mohave ground squirrel was confirmed in 2005 in the Oak Hills wash to the north of the City. There is an additional unnamed wash to the west that may be suitable to Mohave ground squirrel. The Mohave ground squirrel has yet to be found in the City.

Least Bell's Vireo (*Vireo bellii pusillus*)—Federally and State Endangered

The Least Bell's vireo typically breeds in willow riparian forest supporting a dense, shrubby understory of mulefat (*Baccharis salicifolius*) and other mesic species. Oak woodland with a willow riparian understory is also used by the species in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage. This species is known to occur along the Mojave River in Victorville. Suitable habitat for Least Bell's vireo was observed during the field visit in willow scrub areas of the West Fork of the Mojave River.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)—Federally and State Endangered

The southwestern willow flycatcher breeds only in riparian woodland, typically adjacent to or over water. Surface water or saturated soil is usually present in or adjacent to nesting sites during at least the initial portion of the nesting period. Riparian woodland used by willow flycatchers typically has a canopy and an understory of shrubs or saplings. They are also known to breed in nearly pure stands of mature nonnative tamarisk. The southwestern willow flycatcher has been historically present along the Mojave River in Victorville. Potentially suitable habitat for southwestern willow flycatcher occurs at the West Fork of the Mojave River.

Bald Eagle (*Haliaeetus leucocephalus*)—State Endangered

Bald eagles are most often recorded at large deep inland bodies of water. In winter, bald eagles often congregate at specific wintering sites that are generally close to open water and that offer good perch trees and night roosts. The bald eagle may roost communally during the winter in dense, sheltered, remote conifer stands. Winter habitat suitability is defined by the food availability, the presence of roost sites that provide protection from inclement weather, and absence of human disturbance although bald eagles will tolerate some human activity in areas of high prey availability. The perching habitat during the wintering season is characterized by the presence of tall trees located adjacent to foraging areas similar to those found at other times of the year. Bald eagles have been documented breeding at the southeast end of Silverwood Lake, which is approximately 2.4 miles south of the City limits. Bald eagles have also been observed foraging along the West Fork of the Mojave River.

Arroyo Toad (*Anaxyrus californicus* = *Bufo californicus*)—Federally Endangered

The arroyo toad measures between two and 3 inches in length and has dark-spotted, warty skin. Arroyo toads can be found in semi-arid regions near washes or intermittent streams, including valley-foothill and

desert riparian, desert wash, along rivers with sandy banks, willows, cottonwoods, and sycamores, specifically in loose, gravelly areas of streams in drier parts of its range. Critical Habitat for Arroyo toads has been designated within Little Horsethief Creek, the West Fork of the Mojave River as well as the Mojave River below the Mojave Forks Dam. Arroyo toad has been observed in the West Fork of the Mojave River and in Little Horsethief Creek.

Burrowing Owl (*Athene cunicularia*)—California Species of Concern

Burrowing owl were once very abundant in California but have seen a steady decline over the past 100 years, especially in the last 20 years, mainly due to urban development. The primary requirement for suitable burrowing owl foraging habitat appears to be low vegetation cover that allows visibility and access to prey. However, there is some evidence that burrowing owls prefer a vegetation mosaic with nesting habitat interspersed within taller vegetation for hunting. Tall vegetation may provide the cover necessary to host large populations of rodents, which are then susceptible to predation as they traverse open areas in the mosaic. Very low vegetation and sites with exposed soils are important oviposition (egg-laying) sites for grasshoppers, another vital prey for burrowing owl that may be supported in a vegetation mosaic. The presence of burrowing owls has been confirmed in undeveloped portions of the City. While burrowing owl may occur sporadically within existing burrows, they may also occur in any natural or man-made excavation.

Gray Vireo (*Vireo vicinior*)—California Species of Concern

Gray vireos may occur in chamise dominated chaparral without any conifers on the northern slopes of the San Bernardino Mountains. It prefers habitats on arid slopes dominated by short, densely branched, stiff-twigged shrubs. It inhabits the drier, eastern portions of the Transverse Ranges, a group of mountain ranges in Southern California that lie in an East-West orientation, where the species generally occur in areas of mixed shrubs, e.g., big sagebrush, antelope-brush, buckwheat, box thorn (*Lycium*), silk tassel (*Garrya*), scrub oak, manzanita (*Arctostaphylos* spp.), Ceanothus, Ephedra, etc. Such shrubs are typically mixed with scattered single-leaf pinyon, California juniper, and/or Joshua tree. Some habitats occupied on the desert ranges and most arid slopes of the Transverse Ranges are considerably more open in general structure than the chamise chaparral used in other areas. Gray vireos have been confirmed in the southern portion of the City.

Long-Eared Owl (*Asio otus*)—California Species of Concern

Long-eared owls typically occur in bottomlands where tall willows and cottonwoods are present; but also occur along belts of live oaks, especially as paralleling stream courses. Adjacent open land with available prey is required, as is the presence of old nests of crows or hawks for breeding purposes. In xeric areas, the species is often reported roosting and/or nesting in willows, cottonwoods, junipers, oaks, and in dense plantings of tamarisk, elms (*Ulmus* spp.), and conifers. This species is likely very rare in the City.

Le Conte's Thrasher (*Toxostoma lecontei*)—California Species of Concern

The Le Conte's thrasher inhabits desert flats, washes and alluvial fans with sandy and/or alkaline soil and scattered shrubs. They are not found in urban or dense residential areas but may be found near scattered rural residences that abut suitable habitat. Where it occurs, silver cholla (*Opuntia echinocarpa*) is the preferred nesting plant. The nest typically is placed in a cactus, thorny shrub, or small tree, chosen to

offer protection from predators and sun; it is not always the tallest or largest plant that is used, but one with the proper branching structure that provides the best protection from sun and predation. Species of saltbush found in the Le Conte's Thrasher range may also be commonly used for nesting. Historical breeding locations do exist to the south of the City.

Loggerhead Shrike (*Lanius ludovicianus*)—California Species of Concern

The habitat features that are preferred by loggerhead shrike include open terrain with well spaced lookout posts at least 2 feet high, from which prey items may be seen below on the bare ground or in short or sparse grass. The same habitat types are occupied all year. This species is common in the creosote scrub plant community to the north of the City, where they use Joshua trees as hunting perches.

Summer Tanager (*Piranga rubra*)—California Species of Concern

Summer tanager requires lush riparian woodland or forest dominated by cottonwoods and willows, usually in a climax stage. They require pre-existing cavities for nesting; therefore, the presence of woodpeckers or other cavity excavating species is important. Summer tanagers occur along the Mojave River in Victorville. Although not confirmed, they may occur in riparian areas present along the West Fork of the Mojave River.

Yellow Warbler (*Dendroica petechia brewsteri*)—California Species of Concern

In the California desert, yellow warblers occur in riparian woodland or forest dominated by cottonwoods and willows. Nesting habitat must contain dense understory vegetation. Fremont cottonwoods and larger willows typically form the canopy at breeding sites such as the Mojave River in Victorville. Yellow warblers have not been confirmed within the City, but may occur in riparian areas present along the West Fork of the Mojave River.

Yellow-Breasted Chat (*Icteria virens*)—California Species of Concern

Yellow-breasted chats occur in riparian woodland, forest, and scrub dominated by cottonwoods, willows, arrow weed (*Pluchea sericea*), tamarisk, and mulefat. Breeding sites occur in riparian habitats dominated by cottonwoods and willows. Nesting habitat must have dense understory vegetation and larger trees, which are used for singing perches. Yellow-breasted chats occur along the Mojave River in Victorville. They have not been confirmed within the City, but may occur in riparian areas present along the West Fork of the Mojave River.

Brown-Crested Flycatcher (*Myiarchus tyrannulus*)—CDFW Watch List

Brown-crested flycatchers occur in riparian woodland or forest dominated by cottonwoods and willows, usually in a climax stage. They require pre-existing cavities for nesting. At nesting localities in the California deserts, Fremont cottonwoods and various willows are probably the most common trees used for nest sites. Brown-crested flycatchers have also been known to nest in utility poles and fence posts. The presence of woodpeckers or other cavity excavating species is important. Brown-crested flycatchers occur along the Mojave River in Victorville. They have not been confirmed within the City, but may occur in riparian areas present along the West Fork of the Mojave River.

Two-Striped Garter Snake (*Thamnophis hammondi*)—California Species of Concern

Highly aquatic, two-striped garter snakes forage primarily in and along streams, taking fishes, especially trout and sculpins and their eggs, and amphibians and amphibian larvae. Small mammals and invertebrates such as leeches and earthworms are also taken. The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects. During the day this garter snake often basks on streamside rocks or on densely vegetated stream banks. When disturbed it usually retreats rapidly to water. In milder areas, mammal burrows and surface objects such as rocks and rotting logs serve as winter refuges. This species has not been confirmed to occur in the City, but suitable habitat is present along the West Fork of the Mojave River.

Coast Horned Lizard (*Phrynosoma coronatum*)—California Species of Concern

Coast horned lizards are found in a wide variety of habitats including coastal sage scrub, chaparral, grassland, coniferous forest, oak woodland, riparian, and the margins of the higher elevation desert where it is restricted to the juniper-desert chaparral. Within each of these habitats, this species prefers areas with loose, fine soils, an abundance of open areas for basking, and plenty of native ants and other insects. The coast horned lizard has been confirmed to the south of Hesperia.

Southwestern Pond Turtle (*Actinemys marmorata pallida*)—California Species of Concern

The southwestern pond turtle occupies a wide variety of wetland habitats including rivers and streams (both permanent and intermittent), lakes, ponds, reservoirs, permanent and ephemeral shallow wetlands. In streams, pools are the preferred habitat. Previous records show the species exists from the Mojave Narrows near Victorville and Afton Canyon. Beaver dams and ponds along the Mojave River may be an important habitat feature for turtles. This species has not been confirmed to occur in the City, but pooled areas associated with the West Fork of the Mojave River provides suitable habitat. A beaver dam was observed in this area during the habitat assessment for the General Plan EIR.

American Badger (*Taxidea taxus*)—California Species of Concern

Badgers are generally associated with dry, open, treeless regions, prairies, parklands, and cold desert areas. For example, badger dens have been located in open, grassy areas of coastal sage scrub. Adult badgers primarily are nocturnal. American badger has been confirmed to occur to the south of the City.

Mojave River Vole (*Microtus californicus mohavensis*)—California Species of Concern

The Mojave River vole is found in moist habitats including meadows, freshwater marshes and irrigated pastures in the vicinity of the Mojave River. Suitable habitat is associated with ponds and irrigation canals along the Mojave River proper. Marshy areas that are subjected to annual flooding as well as riparian-associated habitats that can provide refuge during annual flooding are considered suitable habitat for the species. They also utilize adjoining upland habitat during unusually high water levels. The Mojave River vole occurs in marshy areas of the Mojave River in Victorville. This species has not been confirmed to occur in the City, but marshy areas associated with the West Fork of the Mojave River provides suitable habitat.

Wildlife Movement Corridors

As previously discussed, a large portion of the City is developed and does not provide habitat suitable for wildlife movement. The major wildlife corridors within the City primarily exist within the washes and creeks. There are also potential for wildlife corridors along the existing utility easements, and railroad lines.

Jurisdictional Waters and Wetlands

United States Army Corps of Engineers (USACE) jurisdiction must exhibit specific characteristics related to hydrology, soils, and hydrophytic plants, which are plants that grow in soils that are permanently or periodically saturated. In the absence of wetlands, USACE jurisdiction in nontidal waters such as rivers, lakes, and intermittent streams extends to the ordinary high-water mark. Pursuant to California Fish and Game Code Sections 1600–1603, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. There are differences between USACE and CDFW jurisdictions. The CDFW uses less defined and more ecologically based criteria in their jurisdiction determinations. For a watercourse to be considered under CDFW jurisdiction, it must have a terminus, banks, and channel through which water can flow, at least periodically, and needs to exhibit evidence of an ordinary high water mark. CDFW jurisdiction may only exhibit one of the three USACE indicators. Generally, CDFW jurisdiction may extend to the wider limit of riparian vegetation associated with the watercourse, encompassing the entire limits of USACE jurisdiction. There are several features in the City, including Hesperia Lake, Antelope Canyon Wash, Oro Grande Wash, West Fork of the Mojave River, Grass Valley Creek, Little Horsethief Canyon Creek, and Horsethief Canyon Creek, that could be subject to the jurisdiction of the CDFW and/or the USACE.

■ 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). The City of Hesperia is within the jurisdiction of the Lahontan RWQCB (Region 6).

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 California Department of Fish and Wildlife (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.

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 non-federal 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 Hesperia Municipal Code

City of Hesperia Municipal Code Section 16.24, the Protected Plants Ordinance, contains details pertaining to removal permit requirements, findings for removal, plot plan requirements, construction standards, fees, enforcement, and penalties for the protection of native trees, riparian plants, and desert native plant protection. The ordinance limits the impacts to native vegetation and sensitive habitat through restriction of species to be removed and review of all proposed impacts.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to biological resources³ include:

- Policy CN-4.1** Preserve pristine open space areas and known wildlife corridors areas for conservation to protect sensitive species and their habitats.
- Policy CN-4.2** Encourage the protection, preservation and long-term viability of environmentally sensitive habitats and species in the City.
- Policy CN-4.3** Identify lands that are suitable for preservation for sensitive species and their habitats.
- Policy CN-4.4** In those areas known as possible habitat for endangered and sensitive species, require proper assessments before authorizing development.
- Policy CN-4.5** Where such assessments indicate the presence of endangered or sensitive species, require appropriate actions to preserve the habitat and protect the identified species.

■ 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

³ 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.

- 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 Hesperia.

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 Protected Plants 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. In the case of the desert tortoise, it is also the City's policy to require compliance with federal survey protocols. In compliance with City requirements, the biologist would also evaluate the site for the presence and/or suitability of the site for other species. 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. Because burrowing owl may inhabit existing burrows or man-made excavations, the City has established an additional protocol specifically for burrowing owl.

A survey for the burrowing owl is required no more than 30 days prior to grading. Should the owl be found during either the initial survey or prior to grading, occupied burrows may be avoided or the owl relocated in accordance with CDFW protocols. Plants protected under the City's Protected Plants 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.

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*. Mitigation is not 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, most of the areas that contain riparian habitat, including the West Fork of the Mojave River, Grass Valley Creek, Horsethief Creek, and Little Horsethief Creek, are planned for either open space or low density residential use so that impacts to these habitats would be limited with compliance with the City's General Plan (City of Hesperia 2010b).

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 Protected Plants Ordinance, and California Fish and Game Code Sections 1601–1603. The mitigation would be approved by the Development Services Director and CDFW (City of Hesperia

2010b). 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**. Mitigation is not 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 could contain federally protected wetlands within the Project Area including the West Fork of the Mojave River, Grass Valley Creek, Little Horsethief Creek, and Horsethief Creek.

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. 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**. Mitigation is not 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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No regional wildlife movement corridors have been identified in the City, and a large portion of the City is ill-suited for the purposes of wildlife movement. The major wildlife corridors within the City primarily exist within the washes and creeks. There are also potential for wildlife corridors along the existing utility easements, and railroad lines. As discussed above related to riparian habitat, washes and creek are generally designated for open space or low density residential development 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 and railroad facilities. Therefore, implementation of the Regional Reduction Plan is not anticipated to impair the use of washes, creeks, and utility and railroad 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 Development Code 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*. Mitigation is not 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 Hesperia General Plan policies and the Protected Plants 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*. Mitigation is not 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 Hesperia. 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. Therefore, impacts would be *less than significant*. Mitigation is not 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 creeks, washes, and utility and railroad 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, a cumulative impact related to local policies and ordinances would not occur.

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, a cumulative impact related to adopted conservation plans would not occur.

■ References

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. 2012. *City of Hesperia Municipal Code*, July.

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

4.8.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a), associated environmental impact report (2010b), and searches were conducted on-line for resources listed in the NRHP and CRHR (Hesperia 2010b; 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 Hesperia 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 known archaeological resources ranging from large occupation sites to isolated artifacts. The prehistoric setting is defined by four horizons or periods (Hesperia 2010b), 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

Hesperia 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. The Mojave Trail (CA-SBR-3033/H/CHL-963 Mojave Road) runs along the entire eastern boundary of the planning area, and then curves west following along the southern bank of the West Fork of the Mojave (Hesperia 2010b).

In the early 1830s, traders established the route through to Los Angeles by crossing at Green River, Utah, allowing American access to the Four Corner states (Arizona, Colorado, New Mexico and Utah). Known as the Old Spanish Trail, the route paralleled the Mojave River and passed through the western portion of the planning area. The trail eventually crosses the Oro Grande Wash, and then continues onto the Cajon Pass. The Mormon Trail, the Spanish Trail, also known as the Santa Fe and Salt Lake Trail (CA-SBR-4272H), and the Canal Lane Historic Road (CA-SBR-4179H) are all situated along the same general route. By 1845, approximately 300 to 500 people used the Mormon Trail or portions of the trail each year, and the number continued to increase over time (Hesperia 2010b).

In 1847, the Atchison, Topeka, and Santa Fe Railroad (AT&SF) arrived in the Hesperia region, which is now known as the Burlington, Northern, and Santa Fe (BN&SF) Railroad. The first wooden structure was erected in the town in 1857, and consisted of a stable, bunk beds, a water trough, and a general store. The town was not officially named Hesperia until the completion of an AT&SF rail depot in 1885. In 1885, Joseph Widney acquired the Hesperia region and formed the Hesperia Land and Water Company. Thereafter, the Old Townsite of Hesperia was laid out and water rights were procured from the County of San Bernardino. Between 1870 and 1882, local farmers produced grapes to be dried as raisins or pressed into wine. In 1890, a shipping business was created to move juniper wood from Hesperia to Los Angeles. Juniper was used to fire bakery kilns in the city, and the business prospered until oil replaced juniper wood for fuel in the early 1900s (Hesperia 2010b; Hesperia 2013).

In the early portion of the twentieth century, Hesperia was the final stop before the Cajon Pass on Route 66, and the local businesses catered to travelers. In 1924, the route was moved to the west of Hesperia, and businesses suffered as a result. In the 1950s M. Penn Phillips subdivided much of the area between Rancho Road, the BN&SF Railroad, and Maple Avenue into lots measuring one acre and larger. These areas have remained rural and agricultural in nature. Over time, Hesperia became known for its affordability, which is a characteristic that has continued into the modern day. Hesperia was officially incorporated as a City in 1988, with approximately 50,000 residents (Hesperia 2010b; Hesperia 2013).

Historical Resources in Hesperia

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 Hesperia 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.

Cultural Resources in Hesperia

Research completed at the Archaeological Information Center (AIC) at the San Bernardino County Museum (SBCM) to support the City of Hesperia General Plan Update EIR (Hesperia 2010b) indicated that there are numerous cultural resources located within the planning area:

- 151 prehistoric sites, including 1 PHI-listed site
- 95 historic archaeological sites, including 4 NRHP, 1 PHI and 1 CHL-listed site
- 13 dual component sites, sites with both prehistoric and historic components, of which 1 is a CHL-listed site
- 60 prehistoric isolated finds
- 11 historic isolated finds
- 11 prehistoric pending cultural resources
- 8 historic pending cultural resources

It should be noted that the vast majority of the cultural resources identified during the records search have not yet been evaluated for significance (Hesperia 2010b). Thus, there may be resources present in the City which may be found eligible for listing on the NRHP or the CRHR upon future evaluation.

Archaeological Resources in Hesperia

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. According to a records search completed at the AIC, hundreds of prehistoric and historic age archaeological resources have been recorded within the planning area (Hesperia 2010b).

Paleontological Resources in Hesperia

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.

Based upon a review of the Regional Paleontological Locality Inventory (RPLI) at the SBCM, no previously recorded paleontological resource localities are known within the planning area, or within several miles in any direction. However, the planning area does contain deposits that are sensitive for fossils. For example, hundreds of paleontological resource localities have been identified in surface and subsurface exposures of the Miocene-era Crowder Formation (Tcr) in the Cajon Pass region. This area is located to the southwest of the City. In addition, numerous other fossil localities have been recorded directly to the north of the planning area, in sediments derived from the ancestral Mojave River (Qvof). Both sediments have produced important fossil specimens which represent extinct species (Hesperia 2010b).

■ 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) indicates 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 Hesperia Municipal Code

The City Municipal Code does not contain information specific to the preservation of cultural and paleontological resources.

Hesperia General Plan

The Hesperia General Plan goal and policies applicable to cultural resources⁴ are as follows:

- Goal CN-5** The City shall establish policies and procedures in compliance with state and Federal laws and regulations to identify and properly protect found historical, cultural and paleontological artifacts and resources:
- Policy CN-5.1** Encourage the preservation of historical, paleontological and cultural resources.

⁴ 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 CN-5.2** In those areas where surveys and records indicate historical, cultural or paleontological resources may be found, appropriate surveys and record searches shall be undertaken to determine the presence of such resources, if any.
- Policy CN-5.3** All historical, paleontological and cultural resources discovered shall be inventoried and evaluated according to CEQA regulations and the California Office of Historic Preservation.
- Policy CN-5.4** The City shall coordinate with the Archeological Information Center at the San Bernardino County Museum in reviewing potential records and in preserving such artifacts as may be found.

■ 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 resources within Hesperia, City planning documents were reviewed, and searches were conducted on-line for resources listed in the NRHP and CRHR (Hesperia 2010b; 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 Hesperia 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 result in extensive ground disturbance in previously undisturbed soils.

Policies in the Hesperia General Plan incorporate measures to protect and preserve cultural resources in the City. The General Plan policies relevant to this impact are Policy CN-5.1 through Policy CN-5.4. All projects within the City of Hesperia are required to follow these policies which include records searches and surveys in areas where cultural resources may be located, and the inventory and evaluation of such resources in accordance with CEQA, if discovered. Further, if artifacts are detected, the City shall coordinate with the AIC to preserve the resources. Adherence to General Plan policies will reduce impacts on archaeological resources to a less-than-significant level by requiring the inventory and evaluation of any cultural resources encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost. Consequently, potential impacts to archaeological resources as a result of implementation of the Regional Reduction Plan 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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Recorded fossil localities are not known within the City; however, the City’s planning area does contain deposits that are sensitive for fossils. Examples include surface and subsurface exposures of the Miocene-era Crowder Formation (Tcr) in the Cajon Pass region and sediments derived from the ancestral Mojave River (Qvof). The ancestral Mojave River deposits have yielded numerous fossil localities to the north of the planning area. Excavations into the Crowder Formation or sediments derived from the ancestral Mojave River would have the potential to impact paleontological resources. However, the Regional Reduction Plan does not include activities that would directly result in extensive ground disturbance in previously undisturbed soils.

General Plan Policy CN-5.1 through Policy CN-5.4 would minimize impacts to paleontological resources that may occur in association with the Regional Reduction Plan. All projects within the City of Hesperia are required to follow these policies, which include records searches and surveys in areas where paleontological resources may be located, and the inventory and evaluation of such resources in accordance with CEQA, if discovered. Further, if artifacts are detected, the City shall coordinate with the AIC to preserve the resources. Consequently, potential impacts to paleontological resources as a result of implementation of the Regional Reduction Plan 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 Public Resources 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, and consultation with the individual identified by the Native American Heritage Commission to be the Most Likely Descendant. If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to 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 CN-5.1 through Policy CN-5.4 would minimize impacts on historical resources through the completion of records searches and surveys in areas where historical resources may be located, as well as the inventory and evaluation of such

resources in accordance with CEQA, if discovered. Further, if artifacts associated with a historical resource are detected, the City shall coordinate with the AIC to preserve the resources.

With the application of the General Plan policies for historical resources in areas where such resources are known to be located, as well as mitigation measure MM4.8.5-1 to address unidentified, potential historical resources (buildings or structures 50 years and older), impacts would be reduced to ***less than significant***.

MM4.8.5-1

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 Hesperia, 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 existing City policies as outlined in the General Plan, and the implementation of mitigation measure MM4.8.5-1, requires qualified professionals to conduct site-specific cultural resource investigations for future activities associated with the Regional Reduction Plan. Compliance with existing policies and MM4.8.5-1 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 would be 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 CN-5.1 through Policy CN-5.4. Potential impacts would be mitigated to levels that would not be significant through applicable regulations and existing policy. Therefore, ***cumulative 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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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 CEQA and existing General Plan Policy CN-5.1 through Policy CN-5.4. Potential impacts would be mitigated to levels that would not be significant through applicable regulations and existing policy. Therefore, ***cumulative 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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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 ***cumulative impacts would be less than significant.***

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4.8.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

Geologic Setting

The City of Hesperia lies across the boundary of two very distinct geomorphic provinces, each having a unique landscape that reflects the geologic, seismic and climatic processes that have impacted this region in the last few million years. The very southern edge of the City encroaches into the Transverse Ranges Province, a region whose characteristic features are a series of east/west-trending ranges that include the San Gabriel and San Bernardino Mountains. The ranges are called “transverse” because they lie at an oblique angle to the prominent northwesterly grain of the southern California landscape, a trend that is aligned with the San Andreas Fault. The Transverse Ranges are being intensely compressed by active tectonic forces; therefore, they are some of the fastest rising (and fastest eroding) mountains in the world. The rocks that form these mountains have been sheared and fractured under the strain of tectonic movement.

North of the mountains, the greater part of Hesperia lies within the Mojave Desert Province, an arid region of overlapping alluvial fans, desert plains, dry lakebeds, and scattered mountain ranges. Hesperia is underlain by the informally named Victorville Fan, which is composed of sediments ranging in age from early Pleistocene to Holocene (approximately 1 million years to less than 10,000 years old), shed primarily from the San Gabriel Mountains. Their composition reflects that of the rocks eroded by the various streams that enter the valley from the south. Deposition is still ongoing, with the youngest alluvium filling drainage channels and the Mojave River floodplain.

Faulting and Seismicity

Southern California contains a number of major active northwest-trending regional faults such as the San Andreas, San Jacinto, and Elsinore Fault Zones. However, the dominant geologic feature in this region is the active San Andreas Fault Zone (SAFZ), including the San Jacinto Fault System and Elsinore-Temecula fault complexes due to their proximity and relatively high seismic potential. This fault zone consists of several major northwest/southeast-trending, right lateral strike slip faults that have experienced repeated disturbances (i.e., earthquakes and lateral movement) in the last 200 to 300 years. See Figure 4.8.6-1 (Regional Faults) for regional faults.

The City of Hesperia is located near the boundary between the North American and Pacific plates (on the North American side) and as a result, near the boundary of two very distinct geomorphic provinces.

Specifically, the southern edge of the City encroaches onto the Transverse Ranges Province, a region characterized by an east/west trend of its major ranges and faults. These ranges, which include the San Bernardino and San Gabriel Mountains, are “transverse” to the more common northwest/southeast trend characteristic of a large part of the southern California landscape, as defined by the San Andreas Fault. North of the mountains, the greater part of Hesperia lies within the Mojave Desert Province. The east/west Garlock Fault defines the northern boundary of this province, whereas the San Andreas Fault defines its western boundary. Hesperia is near several seismically active earthquake sources, including the San Andreas, North Frontal Fault, Cleghorn, Cucamonga, Helendale, and San Jacinto Faults (see Figure 4.8.6-2 [Fault Map]). Of these, the San Andreas, Helendale and San Jacinto Faults are predominantly right-lateral strike-slip, the North Frontal and Cucamonga Faults are oblique-slip faults (thrust faults with some strike-slip component of movement), and the Cleghorn Fault is a left-lateral strike-slip fault with a slightly normal component.

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:

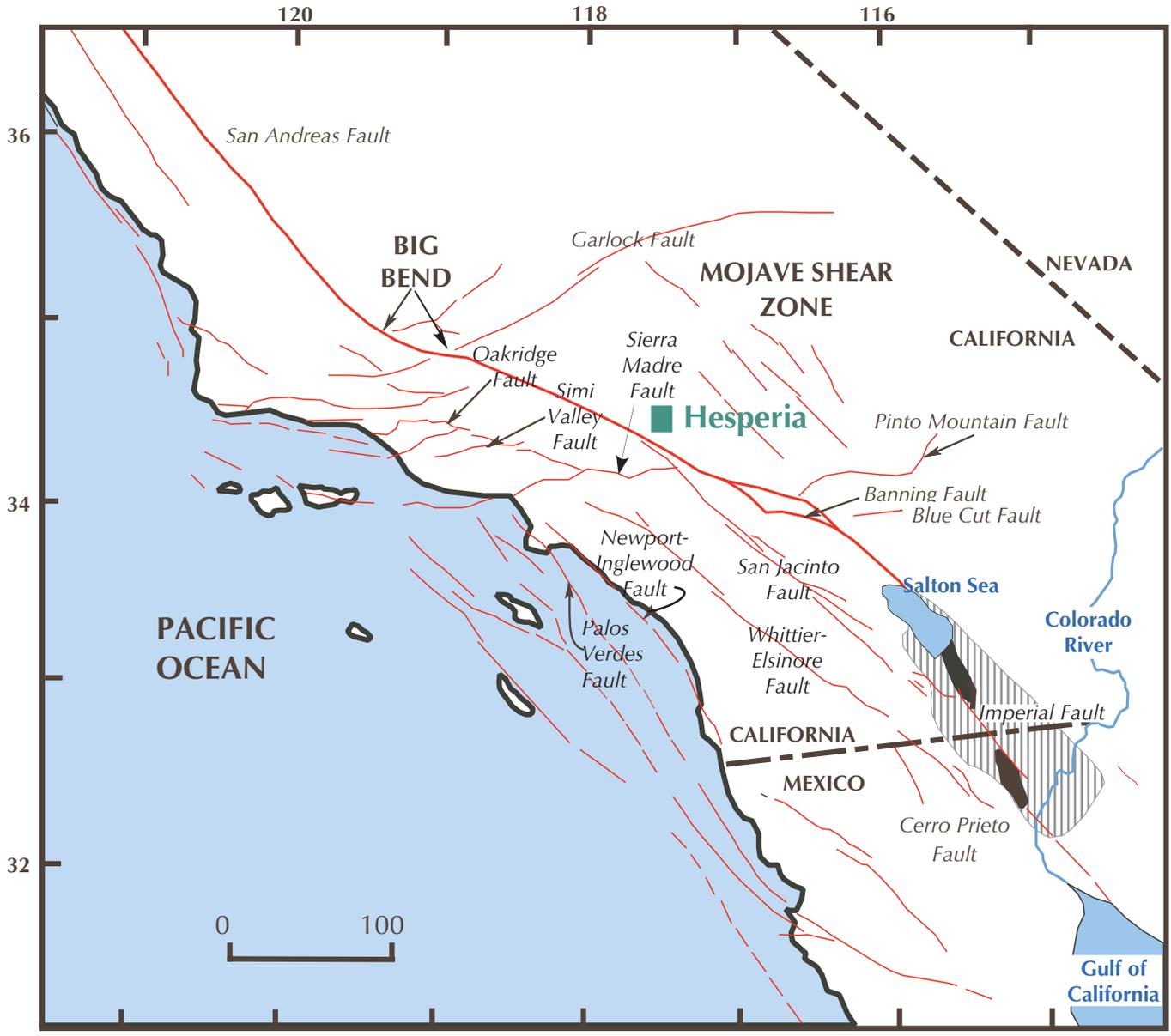
- Characteristics of the earthquake source (magnitude, location and area of causative fault surface)
- Distance from the fault
- Amplification effects of local geologic deposit

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.



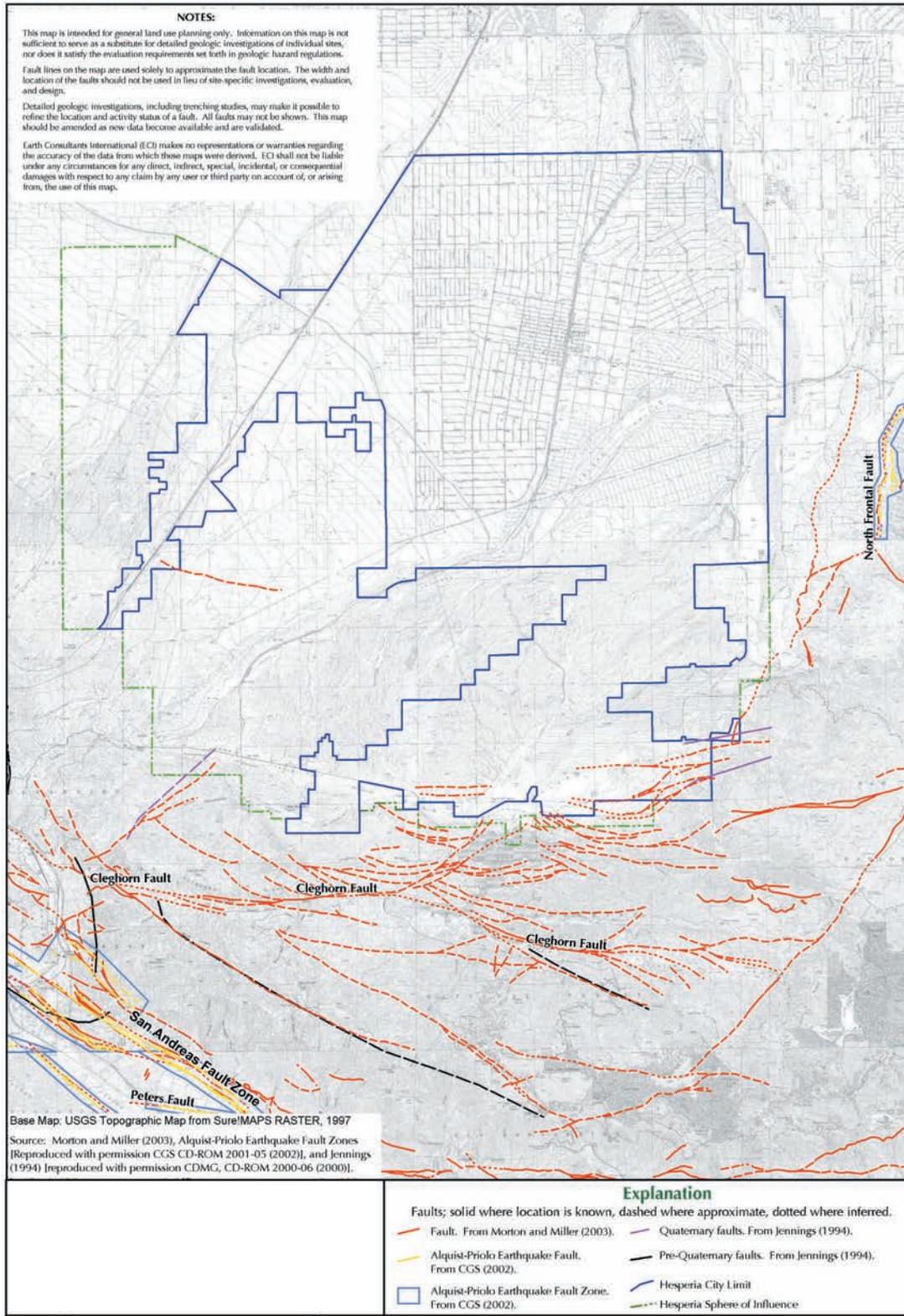
MAP EXPLANATION

- Fault
- Onshore Spreading Center
- New Crust (late Cenozoic)

Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .



Figure 4.8.6-1
Regional Faults



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .



Figure 4.8.6-2
 Fault Map

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 two 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. See Figure 4.8.6-3 (Seismic Hazard Areas) for seismic hazard areas for areas within the planning area susceptible to landslides and liquefaction.

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.

As seen in Figure 4.8.6-3, seismic hazardous susceptible to landslides are generally located within the mountain regions and southern portion of the Planning Area. In addition, areas susceptible to seismic-induced liquefaction are generally located along the eastern portion and southeastern portion of the planning area.

Landslides and Slope Failure

The geologic units in Hesperia consist mainly of water-laid sand, silt, and gravel. The various alluvial units and their estimated ages have been categorized by researchers primarily by noting the degree of soil development on the fan surface, stratigraphic position, degree of stream incision, relative uplift, and other physical characteristics. Most of these units do not have formal names, but they have been labeled with symbols that emphasize their age and mode of deposition. A few older sedimentary units in the region have been given formal names, and the oldest rock units, exposed in the San Bernardino Mountains, are named primarily for their texture and mineral composition. The general distribution of geologic units that are exposed at the surface is shown on Figure 4.8.6-4a (Soils Profile) and Figure 4.8.6-4b (Explanation of Soils Profile).

■ 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.

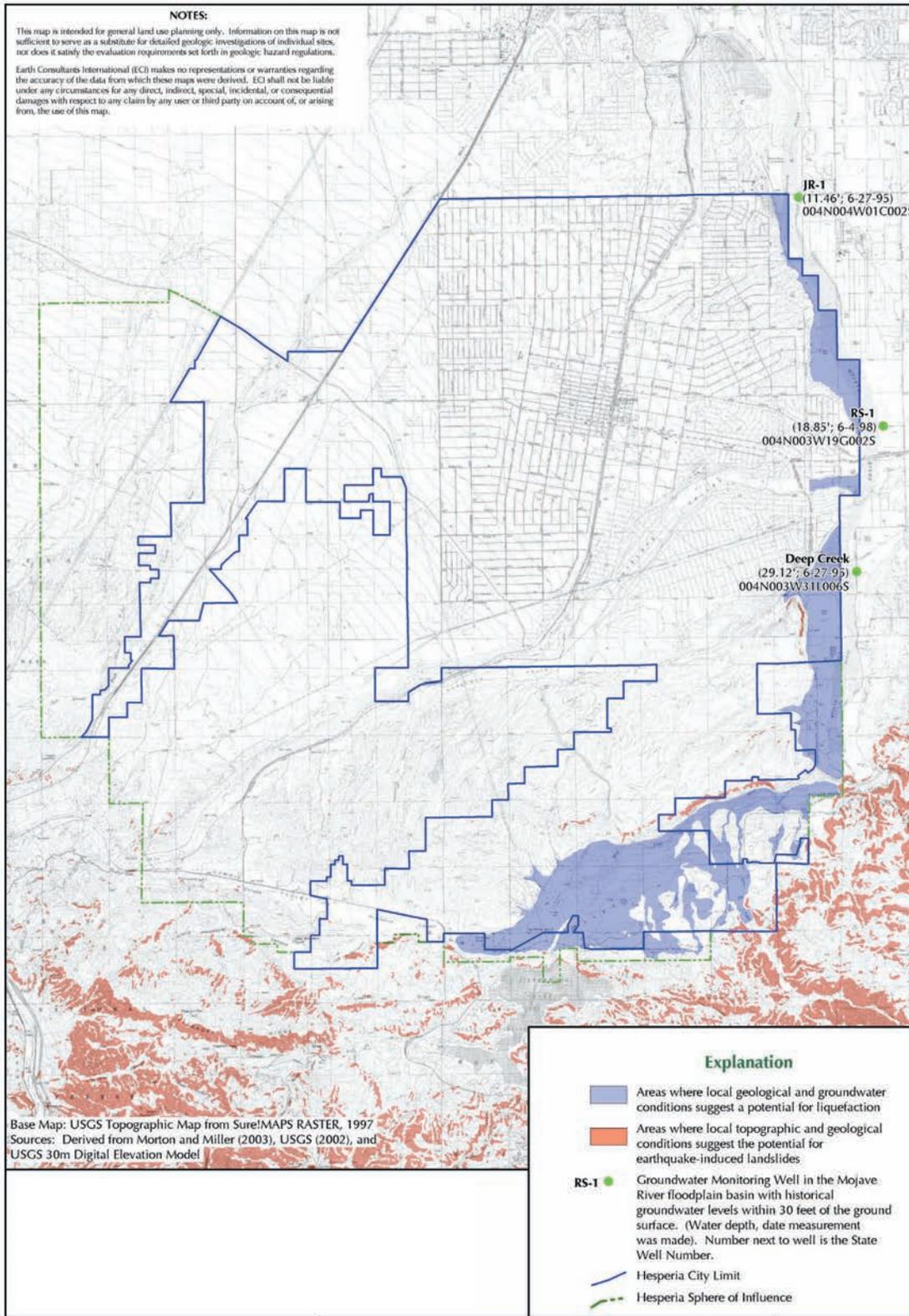
Senate Bill 547

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).



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .

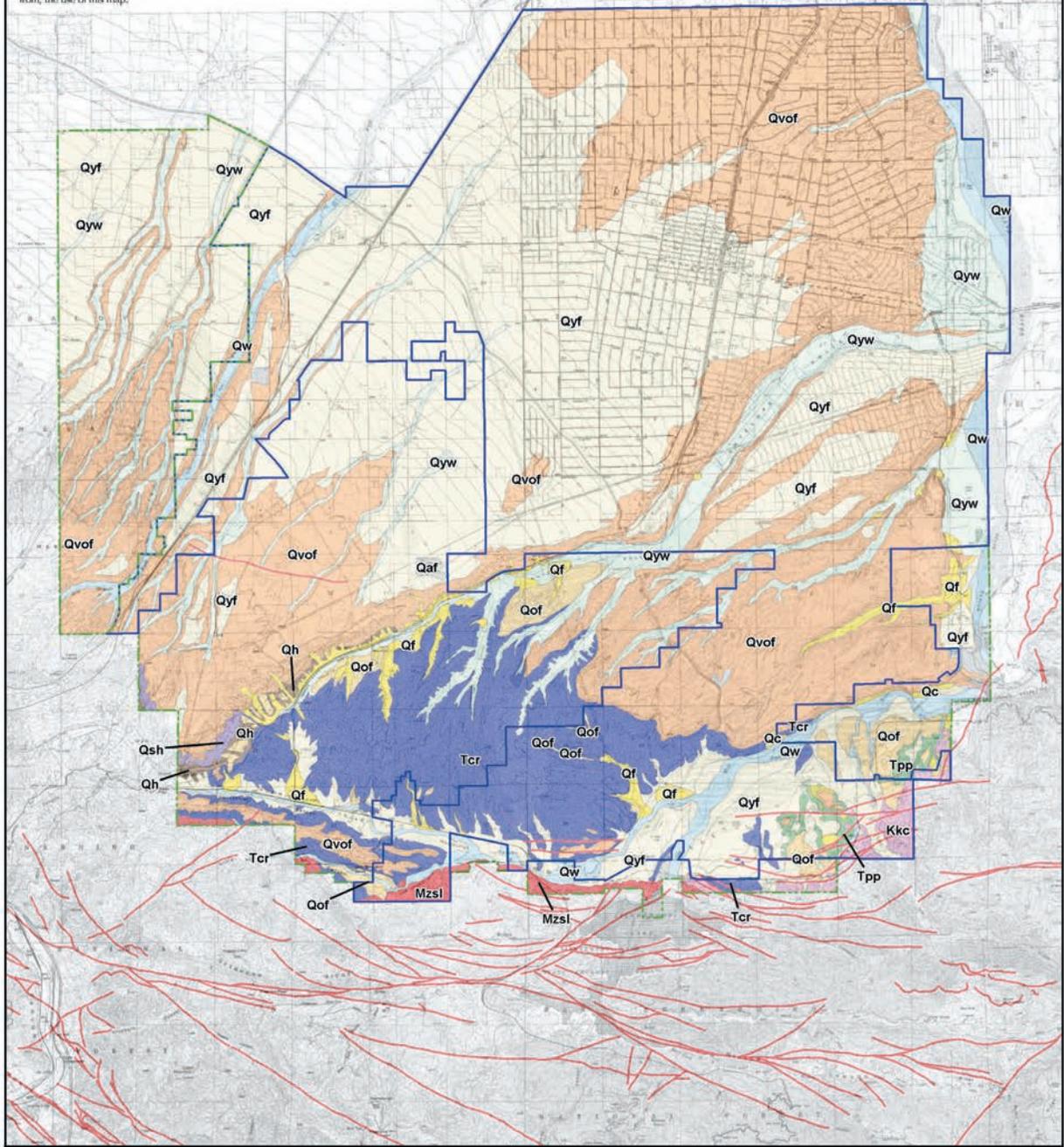
Figure 4.8.6-3
Seismic Hazard Areas

NOTES:

This map is intended for general land use planning only. Information on this map is not sufficient to serve as a substitute for detailed geologic investigations of individual sites, nor does it satisfy the evaluation requirements set forth in geologic hazard regulations. Fault lines on the map are used solely to approximate the fault location. The width and location of the faults should not be used in lieu of site-specific investigations, evaluation, and design.

Detailed geologic investigations, including trenching studies, may make it possible to refine the location and activity status of a fault. All faults may not be shown. This map should be amended as new data become available and are validated.

Earth Consultants International (ECI) makes no representations or warranties regarding the accuracy of the data from which these maps were derived. ECI shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of this map.



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .

Figure 4.8.6-4a
Soils Profile

Symbols



Fault; solid where location known, dashed where approximate, dotted where concealed.
(for more information refer to Plate 1-2)

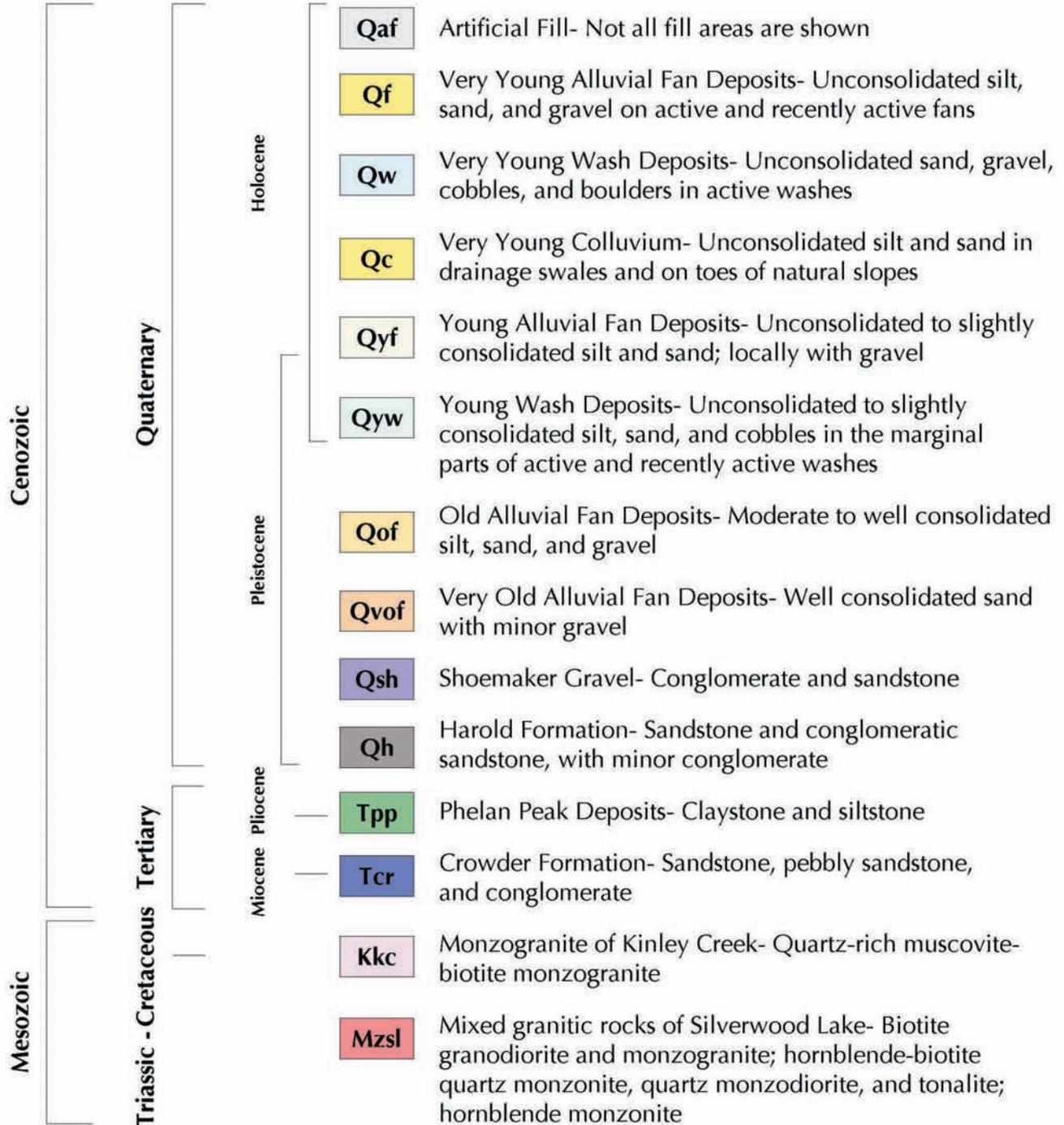


Geologic Contact

Hesperia City Boundary

Hesperia Sphere of Influence

Geologic Unit Descriptions



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .

Figure 4.8.6-4b
Explanation of Soils Profile

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 Hesperia Municipal Code

The City has adopted the CBC into its Municipal Code (Chapter 15.04 [Uniform Code]) which regulates all building and construction projects within the City.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to geology and soils⁵ are as follows:

- Policy SF-1.1** Require that all new habitable structures be designed and built in accordance with the most recent California Building Code adopted by the City, including the provisions regarding lateral forces and grading.
- Policy SF-1.2** Require all discretionary development proposals, as well as capital improvement projects in the City to conduct, as a condition of approval, geotechnical and engineering geological investigations, prepared by State-certified professionals (geotechnical engineers and engineering geologists, as appropriate) following the most recent guidelines by the California Geological Survey and similar organizations, that address, at a minimum, the site specific seismic and geologic hazards identified in the Technical Background Report. These reports shall

⁵ 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.

provide mitigation measures to reduce those hazards identified at a site to an acceptable level.

Policy SF-1.3 City Staff or City representatives will conduct routine inspection of grading operations to ensure site safety and compliance with approved plans and specifications.

Policy SF-1.5 Liquefaction assessment studies shall be conducted as a condition of approval for all projects proposed in areas identified as potentially susceptible to liquefaction (see the Technical Background Report). The studies shall be conducted in accordance with the California Geological Survey's Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazards in California (2008 or more recent version), and the Earthquake Engineering Research Center's Report No. EERC-2003-06 (or more recent version): Recent Advances in Soil Liquefaction Engineering.

■ 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 Hesperia 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	<p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <ul style="list-style-type: none"> ■ 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
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There are currently no Alquist-Priolo Earthquake Fault Zones mapped within Hesperia’s City limits. The closest Alquist-Priolo Earthquake Fault Zones to Hesperia include that on the North Frontal fault less than 2 miles to the east, and the San Andreas Fault to the south (see Figure 4.8.6-2). The region and the City of Hesperia contain a number of known earthquake faults, which are described above and shown in Figure 4.8.6-1 and Figure 4.8.6-2. 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?
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Near-surface sediments in Hesperia are generally sandy and highly susceptible to erosion, particularly the younger, unconsolidated materials. Erodible deposits are widespread, covering nearly all the proposed General Plan area, with the exception of the southern edge, where rock of the San Bernardino Mountains is exposed. In addition, 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 Hesperia Municipal Code Section 16.12.230, 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 erosion 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?
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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, 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 be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property?
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The valley and canyon areas of Hesperia are underlain by sediments that are largely composed of granular soils (silty sand, sand, gravel). Such units typically have a low expansion potential, although pockets of fine-grained expansive soils are not uncommon within these units. Sediments within the floodplain of the Mojave River may locally contain fine-grained (silts and clays) sediments, and these deposits may be moderately to highly expansive. Argillic soil profiles (due to weathering of the surface) that have developed on the older fan deposits are commonly clay-rich and probably fall in the moderately expansive range. 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, any potential impacts associated with expansive soils during implementation of the Regional Reduction Plan would be reduced to **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?
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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 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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

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4.8.7 Greenhouse Gas Emissions

This section of the EIR analyzes the potential environmental effects on greenhouse gas (GHG) emissions in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a), associated environmental impact report (2010b), and the City of Hesperia Climate Action Plan (2010c). 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). Hesperia has a high-desert climate with daytime temperatures in summer often exceeding 100°F but with a large range between daytime and nighttime temperatures. Winter temperatures can be below freezing. For these reasons, homes and businesses in the high desert typically use more energy per capita to warm and cool buildings relative to more moderate climate zones in California. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, heavy vehicular traffic, industry, and meteorology.

The City of Hesperia emitted approximately 487,372 metric tons of carbon dioxide equivalents (MT CO₂e) in 2008. The emissions were calculated based on the 2012 RTP traffic modeling, data from utilities, and land use. The largest portion of the City’s 2008 emissions were from transportation (52.5 percent), followed by emissions from electricity and natural gas use in buildings (36.0 percent). Table 4.8.7-1 (2008 Net Total Emissions) summarizes the City’s net 2008 emissions of CO₂e 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.

<i>Category</i>	<i>Metric Tons of CO₂e</i>
Energy	175,682
On-Road Transportation	255,860
Off-road Equipment	27,949
Water and Wastewater	15,301
Solid Waste	7,007
Agriculture	5,572
Total	487,372
Excluded Stationary Sources under Title V Permits ^a	50,216

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

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 (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), 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.

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 CO₂ 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 CO₂ emissions.

CO₂ is removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle. Natural sources of CO₂ occur within the carbon cycle where billions of tons of atmospheric CO₂ are removed by oceans and growing plants and are emitted back into the atmosphere through natural processes. When in balance, total CO₂ 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 CO₂ concentrations in the atmosphere by 35 percent as of 2005.

Methane

Methane is emitted from a variety of both human-related and natural sources. CH₄ 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 CH₄ emissions are related to human activities. Natural sources of CH₄ include wetlands, gas

hydrates,⁶ permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. CH₄ 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 CH₄ emissions from both human and natural sources. Also, the implementation of technologies to capture and utilize CH₄ 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 N₂O.

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 CF₄ (carbontetrafluoride) and SF₆ (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, CF₄, SF₆, 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 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.

⁶ Gas hydrates are crystalline solids that consist of a gas molecule, usually methane, surrounded by a “cage” of water molecules.

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 Hesperia, 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 biomes⁷ 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.

⁷ 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 CO₂ emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO₂ 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 CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalents (CO₂e), and are often expressed in metric tons (MT CO₂e) or millions of metric tons of CO₂ equivalents (MMT CO₂e).

- **Global Emissions**—Worldwide emissions of GHGs in 2004 were nearly 30 billion tons of CO₂e 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 CO₂e. 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 CO₂e, 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 CO₂e, 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 CO₂e, 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-CO₂ 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 110–161), 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 CO₂e 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 (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF₆), 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 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 Contract Technology (BACT) if the source has a potential to emit (PTE) at least 75,000 MT CO₂e 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 CO₂e per 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 CO₂e. 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.

Senate Bill (SB) 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 (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. 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 (PM₁₀, PM_{2.5}, 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

City of Hesperia Municipal Code

The City Municipal Code includes a number of Ordinances, which reduce greenhouse gas emissions directly or indirectly.

Municipal Code Title 10 (Vehicles and Traffic), Chapter 10.24 (Trip Reduction and Travel Demand Management), provides alternative transportation methods consistent with SANBAG's Congestion Management Program. Vehicle trip reduction requirements as well as travel demand management strategies have been adopted as part of this Ordinance.

City Development Code Chapter 16.20 presents general regulations applicable to landscaping water use. The Code provides water conservation and landscape development standards and guidelines that will promote the general welfare of city of Hesperia residents and business through creating responsible outdoor water use.

City of Hesperia Climate Action Plan

In July 2010, the City of Hesperia prepared a Climate Action Plan (CAP) as its primary strategy for ensuring that the buildout of the General Plan would not conflict with the implementation of AB 32. As part of this effort, the City of Hesperia has selected a goal to reduce its community GHG emissions to a level that is 29 percent below its projected level of GHG emissions in 2020. The CAP is designed to reduce community-related and City operations-related greenhouse gas emissions to a degree that would not hinder or delay implementation of AB 32. The CAP has a variety of strategies to reduce greenhouse gas emissions that are consistent with the goals and policies of the General Plan and the Regional Reduction Plan.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to GHG emissions and reductions⁸ are as follows:

- Policy CN-1.1** Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.
- Policy CN-1.2** Educate residents on water conservation methods with best practices and tips.
- Policy CN-1.3** Promote reduced use of high nitrate fertilizers, herbicides, pesticides and other chemicals in landscaping areas that can contaminate the quality of the groundwater.
- Policy CN-1.4** Limit the disturbance of natural water hydrology by minimizing the creation of impervious surface area and continued utilization of detention/retention basins and underground retention/detention facilities to recharge groundwater.
- Policy CN-1.5** Work with local agencies and jurisdictions to provide a coordinated effort to ensure a safe and constant water supply for the region.
- Policy CN-1.6** Encourage the use of low-water consumption fixtures in homes and businesses.

⁸ 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 CN-1.7** Require new development to use new technology, features, equipment and other methods to reduce water consumption.
- Policy CN-2.1** Minimize impacts to washes that convey drainage by prohibiting development within drainage corridors that are not consistent with the Master Plan of Drainage.
- Policy CN-2.2** Encourage the use of reclaimed water for irrigation and other non-potable uses.
- Policy CN-2.3** Protect open space areas used for recharging groundwater basins.
- Policy CN-2.4** Continue to implement the use of reclaimed water through the City’s “purple pipe” ordinances and regulations to further the use of reclaimed and treated water.
- Policy CN-2.5** Implement the State and City laws and policies to develop retention basins for the replenishment of the underground water supply.
- Policy CN-2.6** Coordinate City policies and activities with the Victor Valley Wastewater Reclamation Authority.
- Policy CN-3.1** Monitor the development impacts to these surface water resources within the city.
- Policy CN 3-2** Preserve areas within the Oro Grande wash and un-named wash #1 that exhibit ideal native habitat in a natural state.
- Policy CN-6.1** Explore the potential for a green building program in the City to educate the development community and promote the conservation of natural resources.
- Policy CN-6.2** Encourage the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.
- Policy CN-6.3** Provide incentives like technical assistance and low-interest loans for projects that are energy efficient and contain energy conservation measures.
- Policy CN-6.4** Educate the public about energy conservation techniques.
- Policy CN-6.5** Coordinate with the local energy provide in developing policies and procedures to reduce energy consumption in existing and future developments.
- Policy CN-6.6** Encourage residents and businesses to utilize the incentives provided by the local energy providers to retrofit their buildings and businesses for energy efficiency and conservation.
- Policy CN-6.7** Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
- Policy CN-7.4** Promote the utilization of alternative energy resources such as wind and solar in new development.
- Policy CN-7.8** Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
- Policy CN-7.9** Promote sustainable principles in development that conserves such natural resources as air quality and energy resources.
- Policy CN-8.2** Implement measures to reduce exhaust emissions from construction equipment.

- Policy CI-1.11** Encourage alternative modes of transportation including bus, bicycle, pedestrian, and equestrian through street design.
- Policy CI-1.12** Provide for a safe and efficient pedestrian network.
- Policy CI-1.13** Where feasible, create opportunities for recreation through the establishment of interconnected trail systems throughout the community.
- Policy CI-1.14** Coordinate with San Bernardino County Flood Control District and Southern California Edison Company to promote utilization of easements or the trail system.
- Policy CI-2.8** Reduce trip generation through development and implementation of Transportation Demand Management Programs.
- Policy CI-5.1** Provide a wide range of travel alternatives to the use of single occupancy vehicles.
- Policy CI-5.2** Work with Caltrans and SANBAG to provide additional park and ride lots at key locations.
- Policy CI-5.3** Continue to participate with the Victor Valley Transit Authority to ensure there are adequate routes to provide efficient, adequate, safe service for the community.
- Policy CI-5.4** Continue to work with and support the Victor Valley Transit Authority in providing transit facilities for elderly and handicapped residents.
- Policy LU-2.4** Utilize mixed-use development to create unique and varied housing.
- Policy LU-3.4** Encourage the beautification of pedestrian areas, particularly through the use of landscaping.
- Policy LU-3.8** Incorporate landscape plantings into commercial developments to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.
- Policy LU-4.7** Incorporate landscape plantings into industrial projects to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.
- Policy LU-6.1** Promote the use of green building standards and Leadership in Energy and Environmental Design (LEED), or other equivalent programs, in both private and public projects.
- Policy LU-6.2** Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, consistent with Policy LU-6.1.
- Policy LU-6.3** Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
- Policy LU-6.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.

- Policy LU-6.5** Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
- Policy LU-6.7** Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
- Policy LU-8.1** Ensure that new development is fiscally sound and able to pay for the infrastructure and services needed to support it, in order to protect the City and existing residents from incurring additional costs to support growth.
- Policy LU-8.2** Coordinate land use planning with infrastructure provision and planning, both within the City and within the sphere of influence, to ensure adequate, convenient, and efficient provision of support services as development occurs, funded by those who benefit.
- Policy LU-8.3** Permit density transfers and clustering as a means of achieving more efficient housing construction and providing areas of usable common open space, in addition to payment of development impact fees.
- Policy LU-8.4** Identify those areas of the City which require special attention to prevent urban blight due to lack of infrastructure, maintenance, or substandard structures, and implement programs to improve these areas.
- Policy LU-8.5** Adopt design standards, which will assure land use compatibility and enhance the visual environment, by providing attractive, aesthetically pleasing development which is sensitive to the unique local characteristics of the Hesperia community.
- Policy OS-6.1** Provide an interconnecting plan in conjunction with surrounding agencies to provide regional trails.

■ 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 Hesperia 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, consistent with the adopted CAP, is to reduce the GHG emissions to a level that is 29 percent below its projected GHG emissions 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 Hesperia'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. Refer to in 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 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 CO₂e 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 CO₂. Thus, GHG emissions in this analysis are measured in terms of MT CO₂e.

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 Hesperia totaled 50,216 MT CO₂e 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 Hesperia would result in the reduction of GHG emissions over the long term, which would be a beneficial effect. Area source reduction strategies such as landscape strategies, cool roofs, cool pavement, and parking lot shading 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 4.8.7-2 (GHG Emission Inventories and Reductions in the City of Hesperia) quantitatively shows the reductions of GHG emissions in 2020 that result would result from implementation of the Regional Reduction Plan in the City of Hesperia and compares the reduced emissions with the City Reduction Target.

The reduction measures that reduce GHG emissions down to levels below the Reduction Target are discussed in Section 4.8.0 (Introduction to the Analysis) 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 Hesperia.

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 4.8.7-2 summarizes the 2008 GHG emissions for the City. The emissions in 2008 totaled 487,372 MT CO₂e. The largest source of emissions was transportation, followed closely by energy use.

Table 4.8.7-2 GHG Emission Inventories and Reductions in the City of Hesperia					
<i>Category</i>	<i>Metric tons of CO₂e</i>				
Emission Source	2008	2020 BAU	Plan Reductions	2020 with Plan	% Reduction
Energy	175,682	202,584	62,945	139,639	31.1%
On-Road Transportation	255,860	314,249	87,282	226,967	27.8%
Off-road Equipment	27,949	31,045	3,983	27,062	12.8%
Solid Waste	7,007	8,858	745	8,113	8.4%
Agriculture	5,572	2,840	0	2,840	0.0%
Wastewater Treatment	3,624	3,995	53	3,942	1.3%
Water Conveyance	11,677	28,968	3,426	25,542	11.8%
GHG Performance Standard for New Development ^a	—	—	13,420	—	—
Total	487,372	592,539	171,854	420,685	29.0%
Reduction Target	—	—	171,836	420,702	29.0%
Does the Plan Meet the Reduction Target?	—	—	Yes	Yes	Yes
Reductions Beyond Target	—	—	17	—	—
Excluded Stationary Sources under Title V Permits ^b	50,216	71,693	—	—	—

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 2020 BAU emissions inventory for the City was estimated in the Regional Reduction Plan using the 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 4.8.7-2 summarizes the 2020 BAU emissions inventory. The emissions are an estimated at 592,539 MT CO₂e, an increase of 105,167 MT CO₂e (or 21.6 percent) from the 2008 baseline. Similar to the 2008 inventory, the largest source of emissions is predicted to be transportation followed closely by emissions associated with energy use. The difference between the BAU-forecasted emissions and the established reduction target for the year 2020 is 171,836 MT CO₂e. This is the amount the City must reduce in order to reach their target. Implementation of the Regional Reduction Plan reduces 171,854 MT CO₂e of emissions in 2020 which exceeds the reduction goal by approximately 17 MT CO₂e. This is a reduction of approximately 29.0 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 statewide plan for the reduction of GHG emissions. The Regional Reduction Plan builds 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 existing 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 Hesperia chapter of the Regional Reduction Plan demonstrates that the City meets that level of reduction. All of the reduction measures in the Hesperia 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 4.8.0 of this EIR and are described in further detail in Regional Reduction Plan Chapter 4.

SB 375 requires SCAG to provide a Sustainable Communities Strategy (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 Regional Reduction Plan reduction measures for Hesperia include On-Road Transportation-1 (Sustainable Communities Strategy). This reduction measure provides the land use changes within the City of Hesperia needed to fulfill the City's portion of the Regional SCS land use patterns.

The following is a description of the On-Road Transportation-1 (Sustainable Communities Strategy) in the Regional Reduction Plan:

- **Measure Description:** SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. While Pavley and LCFS seek to reduce fuel consumed and reduce the carbon content of fuel consumed, SB 375 seeks to reduce VMT through land use planning. SB 375 requires regional transportation plans, developed by MPOs to incorporate an SCS in their RTPs. The goal of the SCS is to reduce regional VMT through land use planning and associated transportation patterns. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. 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. SCAG's 2012–2035 RTP/SCS, if fully implemented would successfully achieve the targets set by California ARB.
- **Entity Responsible for Implementation:** The City of Hesperia and SCAG are responsible for implementing this measure. The City of Hesperia provides land use density and development patterns consistent with the SCS such as increased density and mixed use development near transit stations that provides transit oriented development. SCAG leads and SANBAG plays a supporting role in enabling transportation improvements.

The following details each components of On-Road Transportation-1 (Sustainable Communities Strategy) in the Regional Reduction Plan:

- **On-Road-1.1: Improve Transit Travel Time and Connectivity (Regional)**—To the extent feasible, reduce transit passenger travel time through reduced headways and increased speed. In

addition, improve intermodal connectivity among transit systems. These goals could be pursued in connection with, and in addition to, adoption of SANBAG's LRTP.

- **On-Road-1.2: Other Transit Improvements (Regional)**—SANBAG and Hesperia will work with local and regional transit agencies to secure the following services.
 - > Additional Bus Rapid Transit routes, and other transit choices such as shuttles and rail, beyond what is outlined in the SANBAG LRTP.
 - > Convenient feeder service from multimodal transit center to downtown employment centers.
 - > Regionwide bus/transit passes.
 - > Park-and-ride lots.
 - > New opportunities to finance further transit service for the elderly, handicapped, and recreational purposes.
 - > Shuttle service to transport facilities (e.g., park-and-ride lots).
 - > Idling limits for transit fleets.
- **On-Road-1.3: Public Transit Funding (Regional)**—SANBAG and the City of Hesperia will collaborate with a broad range of agencies and organizations to improve and expand funding for public transit infrastructure and operations.
- **On-Road-1.4: Adopt Land Use Patterns to Favor Transit-Oriented Development**— This strategy would involve changes to local general plans to further prioritize transit-oriented development along existing and planned transit facilities. This strategy could build on one of the alternatives considered in the LRTP alternative, which redistributes population and employment growth to transit corridors, and promotes transit oriented development at station areas.
- **On-Road-1.5: Nonmotorized Zones (Local)**—The City of Hesperia will provide urban nonmotorized zones in downtown areas where feasible and will consider establishing a goal for conversion of downtown roadway miles to transit, linear parks, or other nonmotorized zones (California Air Pollution Control Officers Association 2010) and provide for the following services:
 - > Monitor traffic and congestion to determine roadways that should be targeted for improvements.
 - > Evaluate potential efficiency gains from further signal synchronization. Synchronize traffic signals throughout the city and with adjoining cities while allowing free flow of mass transit systems. Require continuous maintenance of the synchronization system
 - > Allow for more-efficient bus operation, including possible signal preemption, and expand signal-timing programs where air quality benefits can be demonstrated.
- **On-Road-1.6: Traffic Calming (Local)**—The City of Hesperia provides traffic calming measures to encourage people to walk or bike instead of using a vehicle.
- **On-Road-1.7: Traffic Signal Synchronization (Local)**—The City of Hesperia is improving travel speed by enhanced signal synchronization.

- **On-Road-1.10: Employer Provided Fringe Benefits (Local)**—The City of Hesperia encourages the use of telecommuting and alternative work schedules for employees and other employer benefits to reduce VMT, including a Guaranteed Ride Home Program.
- **On-Road-1.11: Pedestrian Bicycle Lanes (Local/Regional)**—The City of Hesperia is creating bicycle lanes directed to the location of schools and major employment districts.
- **On-Road-1.12: Pedestrian and Bicycle Network Improvements (Local/Regional)**—The City of Hesperia is improving the existing pedestrian and bicycle network as follows:
 - > Encourage the development of bicycle stations, attended parking, and other attended bicycle parking support facilities at intermodal hubs.
 - > Establish a network of multiuse trails to facilitate safe and direct off-street bicycle and pedestrian travel. Provide bike racks along these trails at secure, lighted locations.
 - > Evaluate and consider free bicycles for public use and/or charge a nominal fee for their use.
 - > Amend or implement a development code to include standards for provision of safe pedestrian and bicyclist accommodations, including “Complete Streets” policies that foster equal access by all users, including pedestrians and bicyclists. Include standards in the design of roadways. As appropriate, require new development and redevelopment projects to address bicycle and pedestrian access internally and to other areas through easements; safe access to public transportation and construction of paths that connect with other nonmotorized routes; and safe road crossings at major intersections for school children and seniors.
 - > Apply for regional, state, and federal grants for bicycle and pedestrian infrastructure projects. Consider using state gas tax subventions, sales tax funds, other funding sources, and development exactions/impact fees to provide bicycle and pedestrian facilities.
 - > Prohibit projects that impede bicycle and walking access, e.g., large parking areas that cannot be crossed by nonmotorized vehicles, and new residential communities that block through-access on existing or potential bicycle and pedestrian routes.
 - > Develop and implement a bicycle safety education program to teach drivers and bike riders the laws, riding protocols, routes, safety tips, and emergency maneuvers to increase confidence, safety, and frequency of use for new and existing bike riders.
- **On-Road-1.13: Alternative Fuel Infrastructure (Local/Regional)**—SANBAG and the City of Hesperia promote the necessary facilities and infrastructure to encourage the use of privately owned low- or zero-emission vehicles such as electric vehicle charging facilities and conveniently locate alternative fueling stations. Convert public transit, street sweeping, and refuse fleets to alternative fuels and provide supporting infrastructure. Examine the use of smaller, more fuel-efficient taxicabs and offering incentives to taxicab owners to use gas-electric hybrid vehicles.
- **On-Road-1.14: School Programs and Outreach (Local)**—The City of Hesperia collaborates with local public schools districts to expand school bus services and routes. Encourage ridesharing programs in private schools to match parents by geographical location for student transport including the following.
 - > Continue to provide public education and information about options for reducing motor vehicle related GHG emissions. Include information on trip reduction; trip linking; public

transit; biking and walking; vehicle performance and efficiency (e.g., keeping tires inflated); low- or zero-emission vehicles; and car and ride sharing.

The following discussion summarizes the General Plan policies that correlate with the reduction measure implementing the SCS within the City of Hesperia:

On-Road Transportation-1 (Sustainable Communities Strategy)

- Policy CI-5.3** Continue to participate with the Victor Valley Transit Authority to ensure there are adequate routes to provide efficient, adequate, safe service for the community.
- Policy CI-5.4** Continue to work with and support the Victor Valley Transit Authority in providing transit facilities for elderly and handicapped residents.
- Policy CI-1.11** Encourage alternative modes of transportation including bus, bicycle, pedestrian, and equestrian through street design.
- Policy CI-1.12** Provide for a safe and efficient pedestrian network.
- Policy CI-1.13** Where feasible, create opportunities for recreation through the establishment of interconnected trail systems throughout the community.
- Policy CI-1.14** Coordinate with San Bernardino County Flood Control District and Southern California Edison Company to promote utilization of easements or the trail system.
- Policy CI-2.8** Reduce trip generation through development and implementation of Transportation Demand Management Programs.
- Policy CI-5.1** Provide a wide range of travel alternatives to the use of single occupancy vehicles.
- Policy CI-5.2** Work with Caltrans and SANBAG to provide additional park and ride lots at key locations.
- Policy OS-6.1** Provide an interconnecting plan in conjunction with surrounding agencies to provide regional trails.
- Policy LU-2.4** Utilize mixed-use development to create unique and varied housing.
- Policy LU-6.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.

The Regional Reduction Plan provides the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Hesperia. Therefore, this impact is *less than significant*. No mitigation is required.

■ Cumulative Impacts

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

■ References

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. 2010c. *City of Hesperia Climate Action Plan*, July.

———. 2012. *City of Hesperia Municipal Code*, July.

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

4.8.8 Hazards/Hazardous Materials

This section of the EIR analyzes the potential environmental effects on hazards/hazardous materials, including hazardous materials, hazardous waste disposal, airport safety, emergency preparedness, and wildfire potential, in the City of Hesperia from implementation of the Regional Reduction Plan. Geologic and flood hazards are addressed separately in Section 4.8.6 (Geology/Soils) and Section 4.8.9 (Hydrology/Water Quality), respectively. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

Compared to other cities in southern California, Hesperia has a relatively low number of sites that generate, use or store hazardous materials. According to the U.S. Environmental Protection Agency (USEPA), there are no Superfund sites in Hesperia, although there is one CERCLIS (Comprehensive Environmental Response, Compensation and Liability Act of 1980) site that is not on the National Priority List. There are three facilities in Hesperia listed in the most recent Toxics Release Inventory (TRI). There is also one TRI facility in Victorville that is within 0.5 mile of Hesperia. There are approximately 46 registered small-quantity and two large-quantity generators of hazardous materials in Hesperia.

Hazardous Materials Transportation

Hazardous materials are transported through the City on Interstate 15, a prescribed route for all types of non-radioactive hazardous materials, radioactive materials and toxic inhalation hazard materials, and on the Burlington-Northern Santa Fe and Union Pacific railroad lines. The USEPA lists seven transporters of hazardous waste in the Hesperia-Victorville area.

Airport Hazards

The City of Hesperia contains the Hesperia Airport, located within the southern portions of the City. The Hesperia Airport is a privately owned, public use airport. According to the Hesperia Airport Comprehensive Land Use Plan, the Airport is classified in the National Plan of Integrated Airport System as a General Aviation, basic utility airport. The Hesperia Airport accommodates emergency air services such as air ambulances, California Highway Patrol, and fire control aircraft.

Wildland Fire Hazard

Areas near Hesperia specifically known for their high to very high wildland fire susceptibility include the mountainous region of the San Bernardino National Forest to the south. This undeveloped to slightly developed area is characterized by steep topographic gradients, and hot, dry summers and autumns. Fires starting in these highland areas can easily spread into the developed foothills, especially if conditions are windy and dry. Farther in the Mojave River lowlands, including in the Hesperia area proper, wildland fires have historically occurred primarily in the southern and western portions of the City and its SOI.

■ 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.

Local

The City of Hesperia 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 Hesperia Municipal Code

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

Hesperia General Plan

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

■ 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 Hesperia 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 Hesperia 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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The Hesperia Unified School District is the largest school district in the high desert, covering nearly 160 square miles on 26 separate campuses. 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. Reduction measures in the Regional Reduction Plan to capture and use methane emissions at waste water treatment plants would reduce fugitive methane emissions currently occurring. Implementation of methane collection systems would be regulated by the California health and safety code, South Coast Air Quality Management District permits, and City of Hesperia health and safety codes to ensure that these systems do not emit hazardous emissions. Consequently, any potential impacts associated with emissions during implementation of the Regional Reduction Plan would be reduced to *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 and methane collection systems are 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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Hesperia Airport is located within the southern portions of the City. It is the policy of the City of Hesperia 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 Hesperia 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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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 Hesperia 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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The primary location for wildland fires in the City is the mountainous region of the San Bernardino National Forest to the south. Wildland fires have historically occurred primarily in the southern and western portions of the City and its SOI. None of the reduction measures that could be implemented by Hesperia 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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

4.8.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality, including flood hazards, in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 Hydrology and Drainage

In a regional context, the City of Hesperia is located within the Mojave Watershed hydrologic unit. The watershed includes 2,931,200 acres. Within this greater watershed, the City of Hesperia is located within the Upper Mojave hydrologic area (Hydrologic Sub-Area 628.20) encompassing 556,821 acres (see Figure 4.8.9-1 [Hydrologic Sub-Areas]). The Mojave River is the primary surface feature within the watershed, to which most drainage features flow. The City of Hesperia is located atop alluvial fans, with relatively flat or gently sloping areas covered with sediment deposited by shallow, intermittent streams that spread out away from the base of the mountains to the south. The City is within the rain-shadow side of the San Gabriel and San Bernardino Mountains, resulting in an average rainfall of approximately 5.58 inches.

Local Hydrology and Drainage

In addition to the Mojave River, which is located along the eastern City boundary and encompasses approximately 614 acres, the City also contains several significant ephemeral washes. These washes include (1) Oro Grande Wash, located on the west side of the Interstate 15 freeway; (2) Antelope Valley Wash, located in the southeastern portion of the City; (3) Honda Valley Wash, located in the southeast section of the City; (4) Horsethief Canyon Wash; (5) Little Horsethief Canyon Wash, and two large unnamed washes; (6) Unnamed Wash #1 east of Interstate 15; and (7) Unnamed Wash #2, near Hesperia Lake and the Mojave River (see Figure 4.8.9-2 [Major Surface Waters]). Significant portions of these washes are utilized for agriculture, equestrian, open-space areas, parks, golf courses or as buffers between commercial/industrial uses and residential uses. A large number of smaller ephemeral washes are also located throughout the City, within the historical alluvial fans.

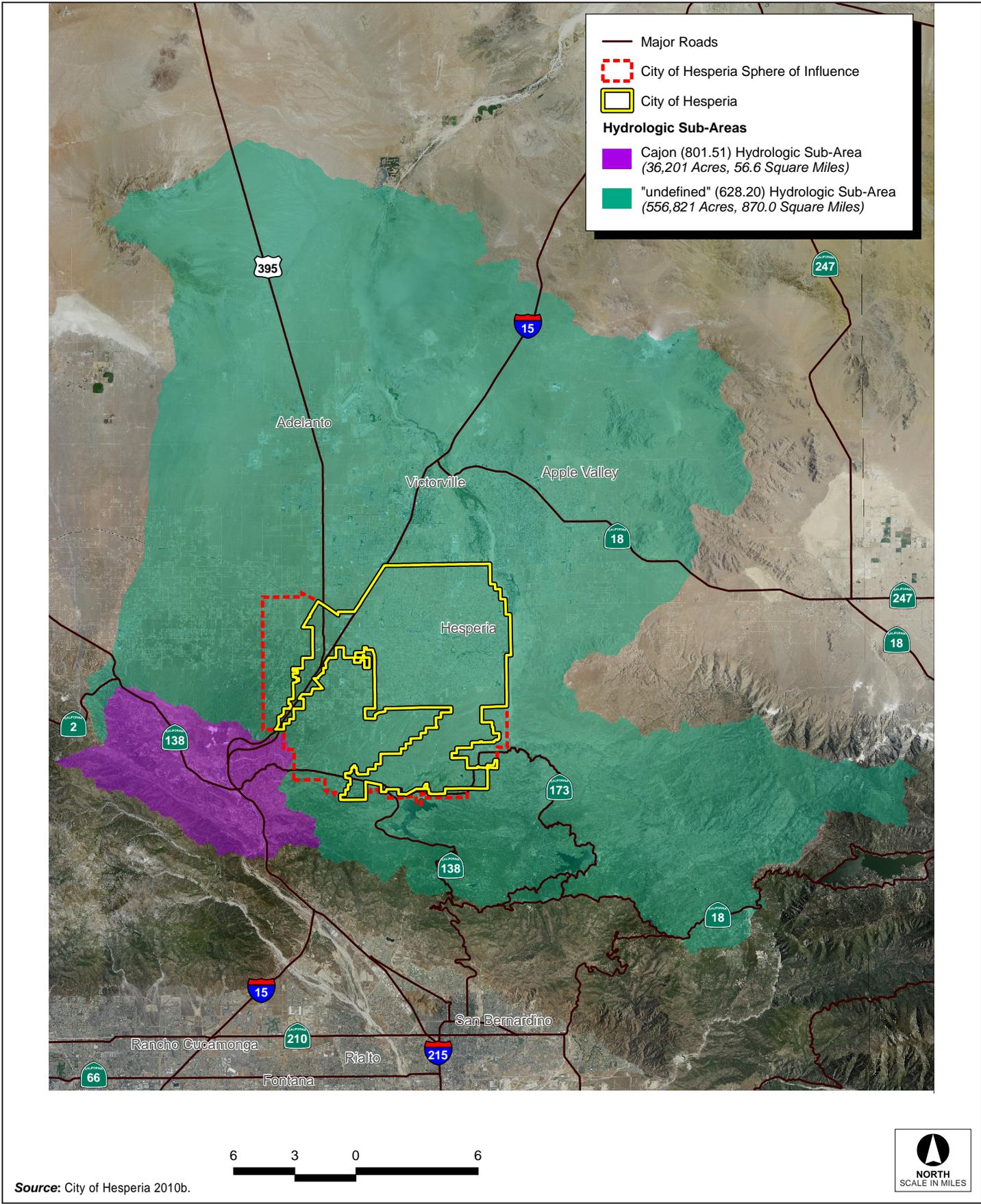
Groundwater

The groundwater basin underlying the City of Hesperia and the greater region is the Mojave River Groundwater Basin (Basin). The Mojave River Groundwater Basin comprises approximately 895,996 acres (1,400 square miles) (see Figure 4.8.9-3 [Groundwater Basins and Subbasins]). The Basin has an estimated storage capacity of nearly 5 million acre-feet. For management purposes the basin is split into subbasins. The Department of Water Resources (DWR) identifies the subbasin beneath the

City of Hesperia as the Upper Mojave River Valley (sub) basin. The Mojave Water Authority (MWA) identifies the subbasin as the Alto subarea. The subbasin extends throughout the city as well as to Victorville and Apple Valley. According to the DWR California Groundwater Bulletin (No. 118), the storage capacity of the Alto subbasin is approximately 2.1 million acre-feet. In 1999, the MWA estimated that the subbasin contained approximately 960,000 acre-feet of groundwater, with approximately 1.1 million acre-feet of additional storage capacity. Groundwater recharge within the subbasin primarily results from direct precipitation, ephemeral stream flow, infrequent surface flow of the Mojave River, and underflow of the Mojave River from the Southwest. In addition, the MWA has initiated a program to inject imported water into the basin as a means of storing water that would be used to offset overdraft of the basin and to provide additional water for the basin.

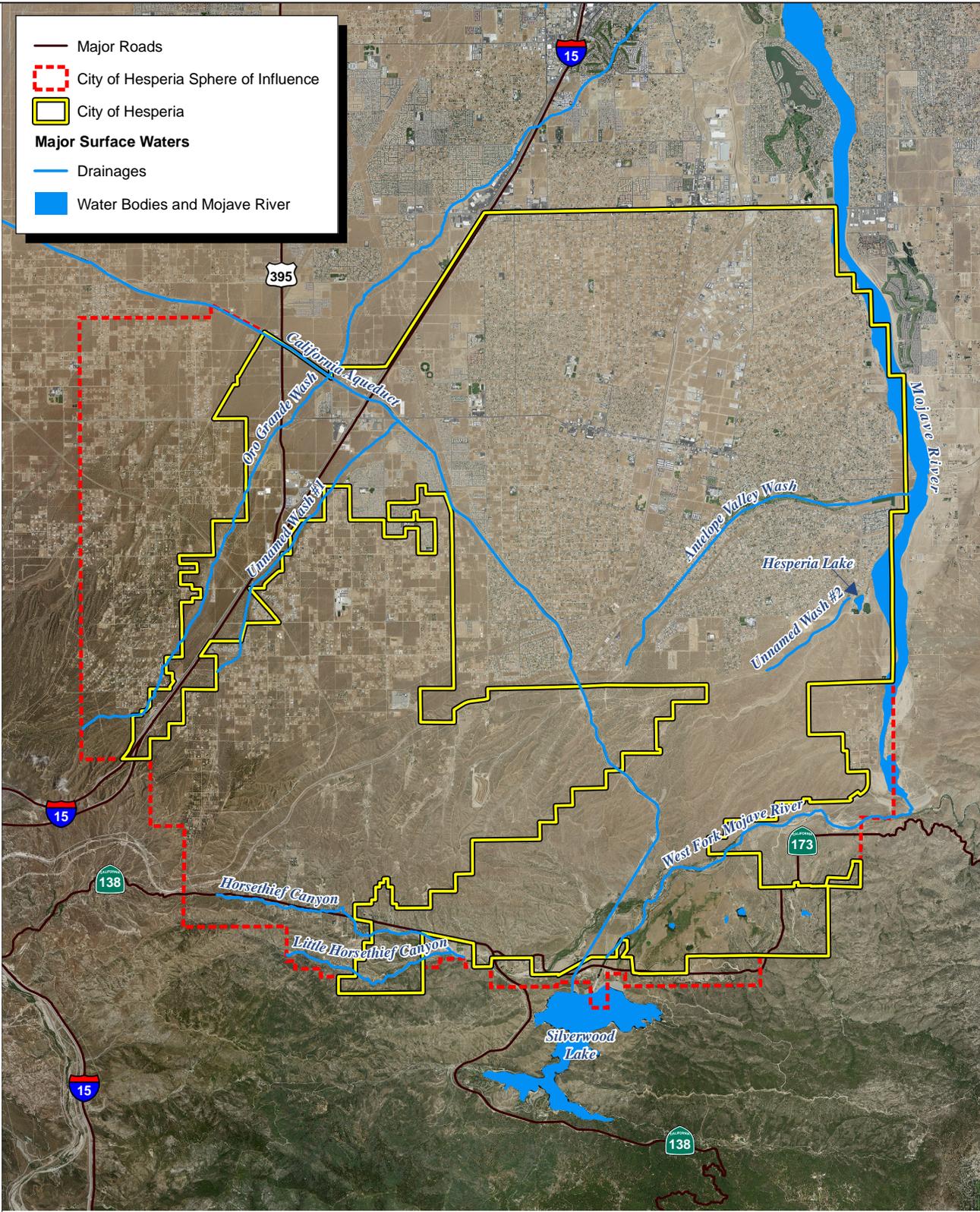
The City of Hesperia's water supply is solely provided from local groundwater resources. The Hesperia Water District system extracts the water from underground aquifers through eighteen active groundwater wells located throughout the City (2010 Urban Water Management Plan). Once pumped, water is stored within 14 storage reservoirs that are strategically placed throughout the city. In 2005, the storage reservoirs maintained a total storage capacity of 49.5 million gallons. This capacity was increased in 2008 to 59.5 million gallons and in 2009 to an estimated 64.5 million gallons. In 2005, the pumping rates for these wells were estimated to range from 800 to 2,600 gallons per minute (gpm). Similarly, total well production capacity was 22,736 gpm, or 32.7 million gallons per day (mgd). Based on the 2005 data, the City's firm production capacity, which is defined as the total capacity with the single largest well out of service, was approximately 20,126 gpm (29.0 mgd). In 2008, the Hesperia Water District equipped three additional wells to help meet anticipated high water demands during peak summer temperatures and emergencies (see Figure 4.8.9-4 [Water Supply Facilities]).

The water quality of groundwater resource is affected by a variety of sources, including percolation from agricultural and urban uses. Contaminants that may be present in groundwater aquifers include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. Microbial contaminants include viruses and bacteria that may come from sewage treatment plants, septic systems, livestock operations, and wildlife. Inorganic contaminants consist of salts, and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic chemicals include synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.



Source: City of Hesperia 2010b.

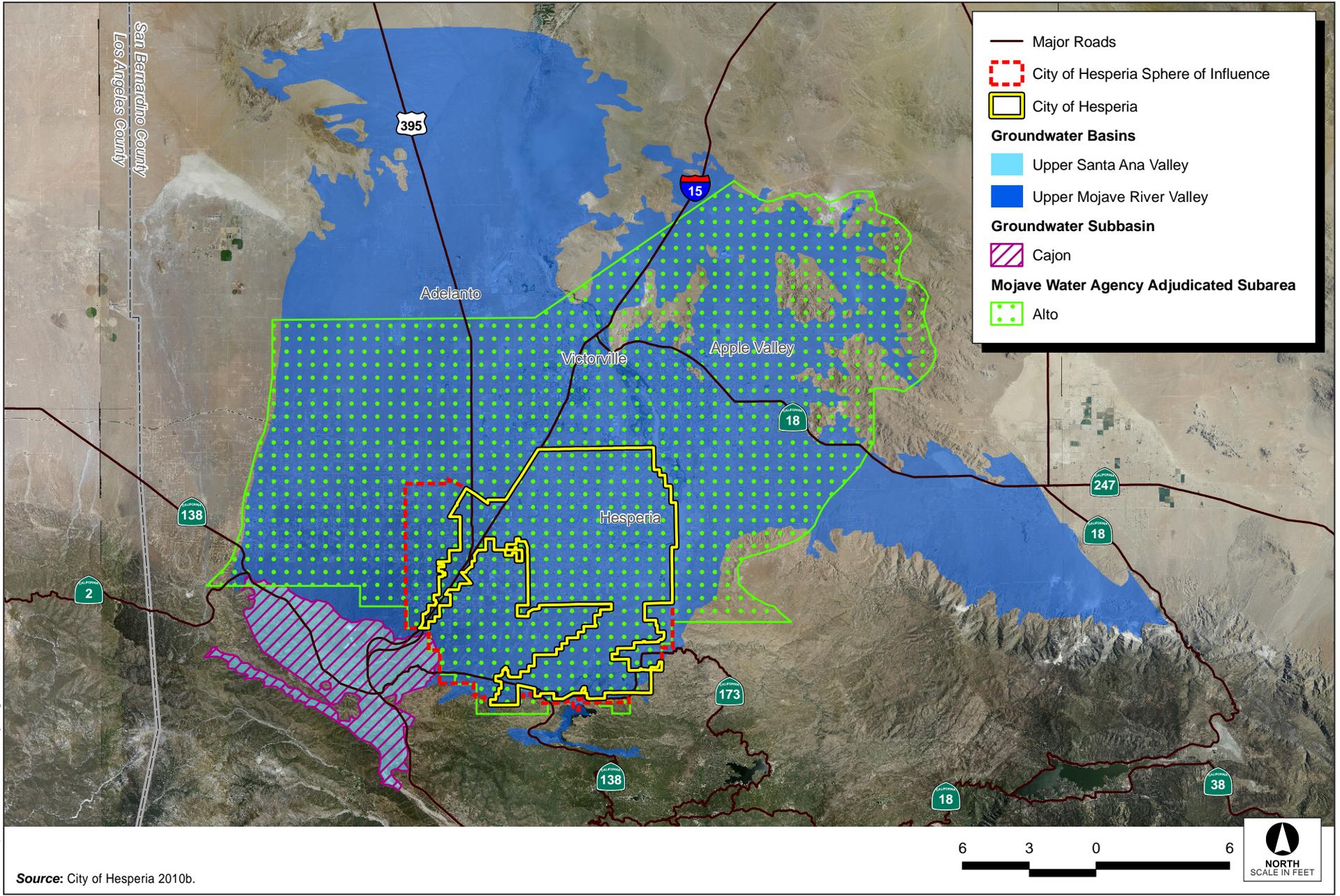
Figure 4.8.9-1
Hydrologic Sub-Areas



Source: City of Hesperia 2010b.

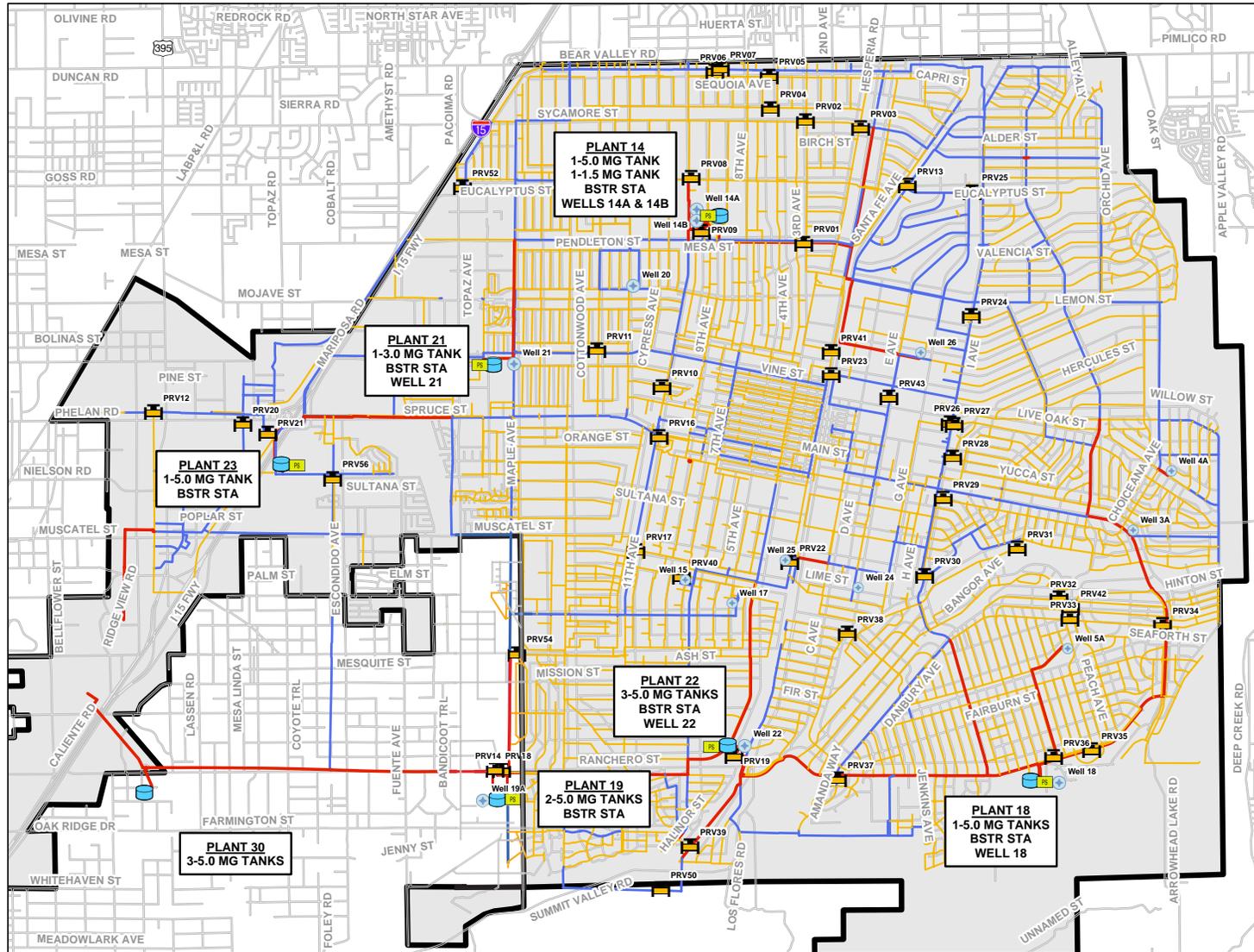


Figure 4.8.9-2
Major Surface Waters



Source: City of Hesperia 2010b.

Figure 4.8.9-3
Groundwater Basins and Subbasins



Source: City of Hesperia 2010b.

Figure 4.8.9-4
Water Supply Facilities

Flood Hazards

Because the City of Hesperia is located within alluvial fans, it is susceptible to alluvial fan flooding, which can be unpredictable. Floodwaters can travel at dangerously high speeds, and can carry large amounts of sediment and other debris. Similarly, rainfall in the areas can be unpredictable and may substantially exceed the annual average in a small number of individual storm events. Construction of the Mojave Forks Dam in 1971 greatly reduced the impact of flooding along the Mojave River, though some parcels adjacent to the river are still at risk. Historically, development in the City of Hesperia was piecemeal without the benefit of a planned drainage network. Development occurred with only minor alterations to the natural topography. As a result, natural drainage courses meander through developed areas, and most streets follow the natural contour of the land without culverts or bridges across drainage channels. Localized flooding, road closures, erosion damage, and sedimentation may occur during and following strong storms, particularly if the ground is already saturated. The Federal Emergency Management Agency (FEMA) provides flood hazard mapping for much of the City of Hesperia and its Sphere of Influence (SOI). The most common means of planning to avoid or at least mitigate flood damage is participation in the National Flood Insurance Program (NFIP). FEMA administers the program, which makes flood insurance available in communities, which have enacted local ordinances restricting development within the 100-year flood plain. The City of Hesperia has participated in NFIP since 1989. FEMA has delineated 100-year flood zones within the Mojave River, Antelope Valley Wash, Oro Grande Wash, and the Summit Valley area.

Several existing structures within the Antelope Valley Wash are located within designated flood zones and several roadways presently extend across 100-year flood zones, including portions of I Avenue, Rock Springs Road, and Ranchero Road.

The City has required best management practices (BMPs) to address potential flooding as part of development project review for years. These BMPs include installation of on-site retention basins and other engineered structures as needed. The City has also constructed engineered drainage facilities that drain several City areas. Similarly, many roadways now include asphalt berms to control surface flows. Also, a nearly 2-mile-long channel with levees now provides some flood protection to the homes near the bottom of Antelope Valley Wash. Some existing flooding within the City is also caused by structures that obstruct runoff and cause ponding on the upstream side. Such structures include elevated rail lines, and the California Aqueduct.

Three dams are located near the City of Hesperia that could potentially inundate the portions of the City should they fail catastrophically during earthquakes. These include the Mojave Forks Dam, Cedar Springs Dam, and Lake Arrowhead Dam. Seismically induced inundation from failure of the Mojave Forks Dam would be confined to the Mojave River Bed, the mouth of the Antelope Valley Wash, and several smaller tributaries. Water released from Cedar Springs Dam would flood a significant portion of eastern Summit Valley, which presently is mostly undeveloped, except for State Highway 173. Failure of the Lake Arrowhead Dam would most likely be contained within the Mojave Forks reservoir. Seismic inundation can occur on a smaller scale when aboveground City water tanks fail. The City maintains seventeen aboveground water tanks. Nine of these meet the latest standards in water tank design, which includes flexible joints at the inlets/outlet connections; in addition to bracing and baffling that help mitigate the

damage resulting from water sloshing inside the tank. The remaining eight tanks need to have their inlet connections retrofitted.

■ 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 EPA 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 Hesperia. 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 EPA 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.

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 1 acre. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB.

An MS4 General Permit program has been implemented in Hesperia to address potentially adverse impacts to water quality by instituting the use of controls on unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation.

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 most recent study and FIRM were completed and published for Hesperia on August 28, 2008. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas on FIRMs.

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.

The City of Hesperia, under the National Flood Insurance Program, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required predevelopment drainage studies, compliance with discharge permits, enhancement of existing waterways, and cooperation with the US Army Corps of Engineers and the San Bernardino County Flood Control District for updating, method consistency with the RWQCB, and proposed BMPs.

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 Lahontan RWQCB is responsible for the Basin Plan that includes the City of Hesperia. The Water Quality Control Plan for this region was adopted in 1995. 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 National Pollutant Discharge Elimination System (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 State Water Resources Control Board (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 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 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 Regional Water Quality Control Board, 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.

Local

City of Hesperia Municipal Code

The City of Hesperia's Flood Hazard Protections Regulations is included as City Municipal Code Title 8 (Health and Safety), Chapter 8.28 (Flood Hazard Protections Regulations). The regulations apply to all areas of special flood hazards, areas of flood-related erosion hazards and areas of mudflow hazards within the City. These regulations include standards for construction, for utilities, subdivisions, manufactured homes, and floodways. Construction standards include requirements for anchoring, floodproofing, and minimum elevations of floors.

Hesperia General Plan 2010

The Hesperia General Plan policies that are applicable to hydrology, water quality and flood hazards⁹ are as follows:

- Policy SF-2.1** The City shall continue enforcing the City’s Municipal Code provisions for flood hazard reduction (Title 8: Safety, Chapter 8.28: Flood Hazard Protection and Regulations). This code, which applies to new construction and existing projects undergoing substantial improvements, provides constructions standards that address the major causes of flood damage, and includes provisions for anchoring, placement of utilities, raising floor elevations, using flood-resistant construction materials, and other methods to reduce flood damage.
- Policy SF-2.2** The City will require that new discretionary development proposals include, as a condition of approval, hydrological studies prepared by a State-certified engineer that assess the impact that the new development will have on flooding potential of existing development down-gradient. The studies shall provide mitigation measures to reduce this impact to an acceptable level. Single family residences on existing lots should be exempted.
- Policy SF-2.3** The City shall continue participation in the National Flood Insurance Program and require that all owners of properties located within the 100-year floodplain (Zones A and AE), purchase and keep flood insurance for those properties.
- Policy SF-2.4** The City will continue to participate in the Storm Ready Program with the National Weather Service, including the monitoring of precipitation and snow levels on the mountains to the south, providing storm watches and warnings in real time, and issuing evacuation notices for affected neighborhoods in a timely manner, such as with a citizen notification or similar system.
- Policy SF-2.5** The City will not permit any new facilities that use or store hazardous materials in quantities that would place them in the State’s Toxics Release Inventory (TRI) or Small Quantity Generators (SQG) databases to be located in the flood zone (Zones A and AE), unless all standards of elevation, anchoring and flood proofing have been implemented to the satisfaction of the City’s Building Department and the San Bernardino County Fire Department. The hazardous materials shall be stored in watertight containers that are not capable of floating or similar flood-proof receptacles or tanks.
- Policy SF-2.6** The City will require all essential and critical facilities (including but not limited to essential City offices and buildings, medical facilities, schools, child care centers, and nursing homes) in or within 200 feet of Flood Zones A and AE, or the dam inundation pathways, to develop disaster response and evacuation plans that address the actions that will be taken in the event of flooding or inundation due to catastrophic failure of a dam.
- Policy SF-2.7** The City will regulate development in Flood Zones A and AE pursuant to FEMA regulations.

⁹ 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 SF-2.8** The City will continue to maintain, and improve where needed, the storm drain systems, with an emphasis on those areas of the City that flood repeatedly. This entails maintaining and regularly cleaning the storm drains and other flood-control structures in low-lying areas, as necessary, such that floodwaters can be effectively conveyed away from structures.
- Policy SF-2.9** The City will identify repetitive flood properties in the City and develop feasible mitigation options for these sites. Funding to implement the mitigation measures may be available through FEMA's Hazard Mitigation Grant and Flood Mitigation Assistance Programs and their Pre-disaster Mitigation Program.
- Policy SF-2.10** The City will encourage the development of areas in the floodplains as parks, nature trails, equestrian parks, golf courses, or other types of recreational facilities that can withstand periodic inundation, and will offer incentives to developers to retain these areas as open space.

■ 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 energy-generating facilities, methane capture systems, pedestrian, bicycle, or transit infrastructure 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 Stormwater Pollution Prevention Plan (SWPPP) under NPDES No. CAS000002. In addition the City requires compliance with NDPES (MS4) requirements. Also, 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, and the grading permit required by the City would reduce the risk of water degradation within the City from soil erosion related to construction activities associated with 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. The Proposed Project would facilitate development in previously developed areas and the bicycle and pedestrian infrastructure consistent with the General Plan, which are already developed with impervious surfaces. The Proposed Project would not to substantially increase the impermeable surface area such that groundwater recharge would be substantially affected. 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 prior to issuance of a grading permit, which process requires preparation of a drainage study and SWPPP. Consequently, any potential impacts associated with emissions during implementation of the Regional Reduction Plan would be reduced to *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. All new development, including facilities constructed pursuant to implementation of the Regional Reduction Plan, would be subject to the provisions of City Municipal Code Title 8 (Safety), Chapter 8.28 (Flood Hazard Protection and Regulations). The purpose of Title 8, Chapter 8.28, is to minimize public and private losses due to flood conditions by ensuring proper design of structures to prevent against flood damages. Additionally, Title 8, Chapter 8.28, also includes provisions for preventing or regulating the construction of flood barriers that would unnaturally divert floodwaters or which may increase flood hazards in other areas. Additionally, all projects within 100-year flood plain must comply with applicable FEMA-approved state or local floodplain management requirements. As such, the development of energy facilities within the City's 100-year flood areas would not result in the redirection of flood flows in a manner that would subsequently lead to the loss of adequate flood conveyance in the City. Hesperia General Plan Policies SF-2.1 through SF-2.10 reduce the risk from flooding throughout the City. Compliance with The General Plan policies 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 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 of City provisions including the Flood Hazard Protection and Regulations (Municipal Code Title 8, Chapter 8.28) would ensure that people and property are protected from flooding through responsible and efficient stormwater management. 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 Regional Reduction Plan implementation. Title 8, Chapter 8.28, includes provisions for preventing or regulating the construction of structures that would unnaturally divert floodwaters or which may increase flood hazards in other areas. 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. Hesperia General Plan Policies SF-2.1 through SF-2.10 reduce the risk from flooding throughout the City. Compliance with the Municipal Code and the General Plan policies 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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Transit, pedestrian and bicycle infrastructure, 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 City Municipal Code Title 8, Chapter 8.28, designed to minimize public and private losses due to flood conditions by ensuring proper design of structures to prevent against flood damages. Hesperia General Plan Policies SF-2.1 through SF-2.10 reduce the risk from flooding throughout the City. These policies identified in the General Plan would minimize the effects of prospective growth from flooding hazards. 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 of Hesperia is not located within an area subject to seiche, tsunami, or mudflow. There would be **no impact**.

■ 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*.

■ References

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4.8.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 Hesperia is located off Interstate 15 (I-15) in the southwestern corner of San Bernardino County in an area known as the High Desert. It is bordered by Victorville to the north, the San Bernardino National Forest to the south, and unincorporated lands in San Bernardino County, as shown in Figure 4.8-1 (Location Map) in Section 4.8.0 (Introduction to the Analysis). Both the Mojave River and the California Aqueduct flow through Hesperia.

Founded in 1891, Hesperia's history is closely linked to travel and transportation, beginning in the 1700s, and subsequently agriculture. Hesperia's population grew relatively slowly until the completion of several major highways, including State Route 66 (SR-66), SR-91, SR-395, and I-15 in the 1940s and 1960s. After completion of these roads, suburban growth transformed the small town of 5,000 people in 1970 to a moderately sized community of over 60,000 by 2000. The City was incorporated in 1988. Hesperia remains a semi-rural community with a variety of housing opportunities, including custom-built villas, modern subdivisions with access to a variety of amenities, and large-lot residential zoning. Agricultural uses still occur in many areas.

Land Uses

Hesperia includes a variety of land uses, most of which is residential. The majority of existing residential development within the City is single-family detached housing on lots of one-half acre or larger. Most of the residential development is located within the City's core area, generally bounded by Maple Avenue and the Mojave River east to west and Bear Valley Road and Rancho Road north to south. Since incorporation of the City, numerous single-family residential developments ranging from four to six dwelling units per acre have been constructed within the City west of Maple Avenue. It is expected that similar residential development will continue in this area. Multi-family residential uses have been established in three general areas of the City. The largest concentration of multi-family residential development has been constructed east of the Santa Fe Railroad, south of Main Street and west of G Avenue. The other areas developed with multi-family units occur primarily along Sequoia Street, adjacent to the Civic Center, and northeast of Main Street and Topaz Avenue. A number of affordable housing developments and mobile home parks also exist in these areas.

Hesperia has modest commercial and industrial activity compared to other cities in the region. Commercial development is primarily along I-15, Bear Valley Road, and Main Street. Industrial development is generally north of Main Street and Santa Fe Avenue and west of I Avenue.

There are three specific plans, which comprise approximately 30 percent of the City's incorporated area: Main Street Specific Plan/Freeway Corridor Specific Plan, Rancho Las Flores Specific Plan, and Summit Valley Ranch Specific Plan.

The community of Oak Hills is located in the western portion of the City's sphere-of-influence and is guided by the Oak Hills Community Plan, which was adopted by the City and San Bernardino County in 2002.

Hesperia Airport is located in the southern part of the City. The Hesperia Airport is a privately owned, public use airport. The Airport is a General Aviation, basic utility airport. It accommodates emergency air services such as air ambulances, California Highway Patrol, and fire control aircraft.

Future Growth

The adopted General Plan provides for an incremental increase in development. The difference in population, employment, and residential housing compared to the previous General Plan is less than 1 percent. Future growth under the General Plan is focused along the I-15 freeway corridor. However, this area was modified through the Main Street and Freeway Corridor Specific Plan and accompanying General Plan Amendment and EIR. Figure 4.8.10-1 (General Plan Land Use Map) shows the adopted land use plan for Hesperia.

■ Regulatory Framework

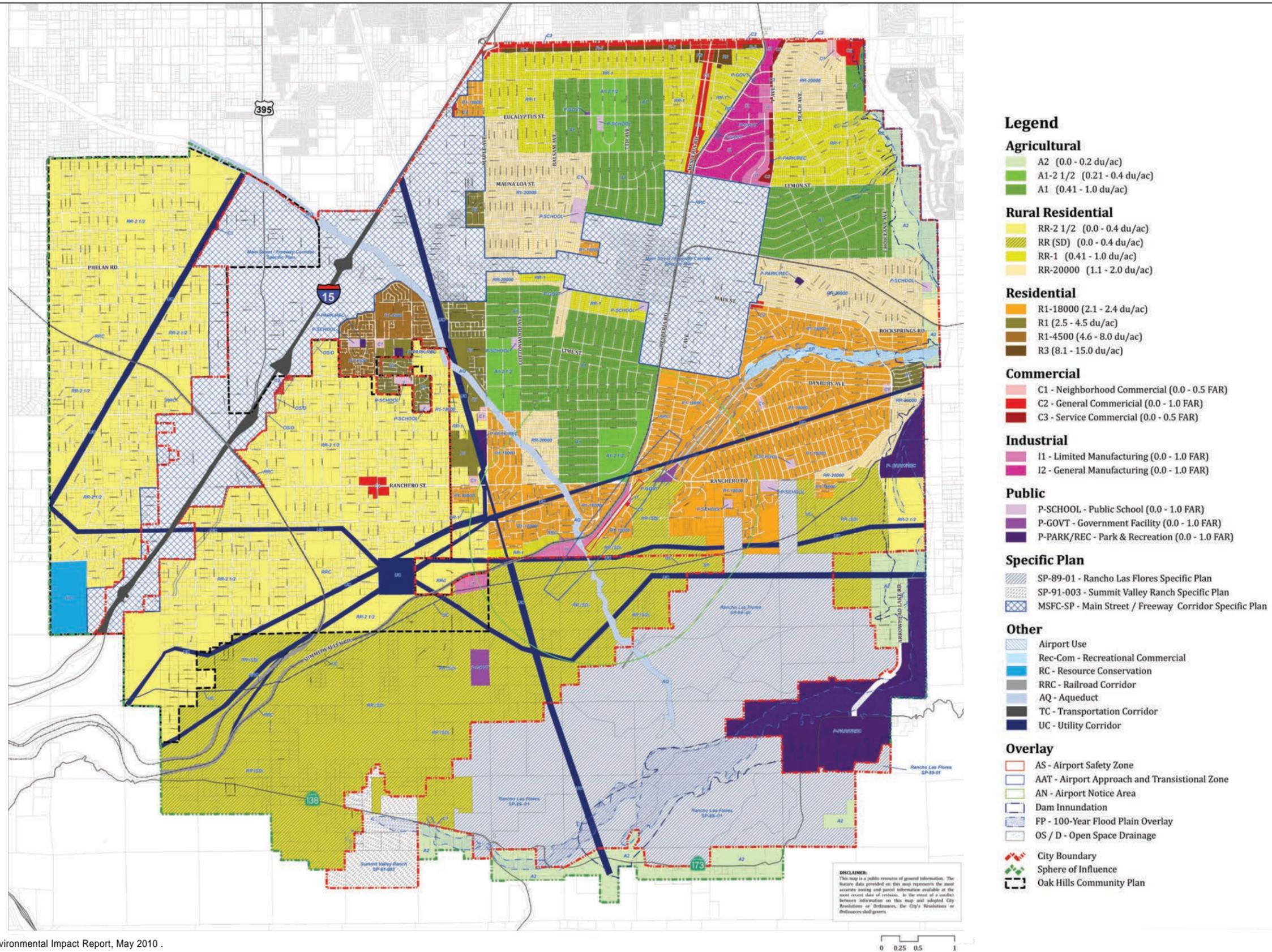
Federal

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.



Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .

Figure 4.8.10-1
General Plan Land Use Map

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 two 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.

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 (CO₂e).

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 CO₂e. 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 (PM₁₀, PM_{2.5}, 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 Hesperia 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 4.8.3-4 (MDAQMD Attainment Plans) in Section 4.8.3 (Air Quality) lists the air quality attainment plans applicable to Hesperia.

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 4.8.4 (Biological Resources).

■ Local

City of Hesperia Municipal Code

The City of Hesperia Development Code (Municipal Code Title 16) 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 Hesperia Development Code are consistent with the uses established under the General Plan.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to land use/planning¹⁰ are as follows:

- Policy LU-2.3** Provide opportunities for a variety of residential densities to accommodate rural and suburban lifestyles, and housing types for all economic and demographic segments of the City's population, with convenient access to public facilities, employment and shopping.
- Policy LU-2.4** Utilize mixed-use development to create unique and varied housing.
- Policy LU-3.5** Require the separation or buffering of residential areas from businesses which produce noise, odors, high traffic volumes, light or glare, and parking through the use of landscaping, setbacks, and other techniques.
- Policy LU-6.3** Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
- Policy LU-6.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
- Policy LU-6.5** Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
- Policy LU-6.6** Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.
- Policy LU-6.7** Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
- Policy LU-7.1** Continue to encourage quality design in all new construction to further improve the built environment of the City.
- Policy LU-7.3** Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
- Policy LU-7.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
- Policy LU-7.5** Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.
- Policy LU-7.6** Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.

¹⁰ 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-7.7** Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
- Policy LU-8.2** Coordinate land use planning with infrastructure provision and planning, both within the City and within the sphere of influence, to ensure adequate, convenient, and efficient provision of support services as development occurs, funded by those who benefit.
- Policy LU-8.3** Permit density transfers and clustering as a means of achieving more efficient housing construction and providing areas of usable common open space, in addition to payment of development impact fees.
- Policy CI-4.2** Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking.

Hesperia Climate Action Plan

The City of Hesperia prepared a Climate Action Plan (CAP) (2010c) as its primary strategy for ensuring that the buildout of the General Plan would not conflict with the implementation of AB 32. The CAP strategy is primarily based upon the land use, transportation, and conservation policies that are part of the General Plan Update, recent specific plans, and major development plans in the City. The concept is that design, density, and pattern of land uses impact the amount people drive and the options available for using less polluting and energy-consuming modes of transportation such as walking, bicycling, and transit.

The CAP has a variety of strategies to reduce greenhouse gas emissions that are consistent with the goals and policies of the General Plan and the Regional Reduction Plan. Strategies that are relevant to land use planning are:

- Strategy CAP-2** Encourage mixed use development in new development and redevelopment areas.
- Strategy CAP-4** Promote compact development by protecting open space and encouraging infill and redevelopment of underutilized parcels in urbanized areas.
- Strategy CAP-5** Provide pedestrian connections in new and existing development to improve pedestrian mobility and accessibility.

Hesperia Airport Land Use Plan

The Hesperia Airport Comprehensive Land Use Plan (CLUP) was adopted by the San Bernardino County Airport Land Use Commission in 1991. It identifies safety zones and noise contours and recommends general development standards associated with those areas. Through its General Plan, Hesperia has adopted three airport overlays consistent with the CLUP and Federal Aviation Administration (FAA) required areas and imaginary surfaces. Implementation of the Regional Reduction Plan would have no effect on the CLUP, nor would the selected measures result in land use or noise incompatibilities.

■ 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 Hesperia General Plan and Climate Action 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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Hesperia is an urbanized area, consisting primarily of residential development. Future growth is focused along the I-15 corridor. 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 Zoning Code, the City's Climate Action Plan, 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 Hesperia community GHG emissions to a level that is 29 percent below its projected emissions level in 2020.

The City will meet and exceed their goal through a combination of state (~73 percent) and local (~27 percent) efforts. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Hesperia's on-road and building energy sectors in 2020. An additional reduction of 45,847 MT CO₂e will be achieved primarily through the following local measures, in order of importance: Solar Installations for Existing Housing (Energy-7); GHG Performance Standard for Existing Development (PS-1); and Water Efficiency Renovations for Existing Buildings (Water-2). Hesperia's plan has the greatest impacts on GHG emissions in the wastewater treatment, building energy, and on-road transportation sectors.

Figure 4.8-2 (Emissions Reduction Profile for Hesperia) in Section 4.8.0 shows Hesperia'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., 29 percent below the projected level of GHG emissions in 2020). 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 (~73 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.8-3 (Emissions by Sector for Hesperia) in Section 4.8.0 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 4.8-3 (Emission Reduction by Sector for Hesperia) in Section 4.8.0 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 Hesperia exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the wastewater treatment, building energy, and on-road transportation sectors.

Figure 4.8-4 (Emission Reductions by Control and by Sector for Hesperia) in Section 4.8.0 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 and due to Solar Installation for Existing Housing (Energy-7).

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 Hesperia 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 Hesperia General Plan and CAP 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 and CAP 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 Hesperia, 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 Hesperia are consistent with the goals and policies of the City’s General Plan and CAP. 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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. 2010c. *City of Hesperia Climate Action Plan*, July.

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

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4.8.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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

Mineral resources are naturally occurring deposits that are used in the production of materials. There are several types of mineral resources within the City such as sand, gravel, and stone, which are used in the manufacturing of concrete. These deposits are primarily located in the wash areas and Summit Valley.

Several aggregate resources have been identified in the area of the Rancho Las Flores Specific Plan. These deposits include gravelly alluvium located along the West Fork Mojave River and Grass Valley Creek floodplain, and sandy alluvium located in the northeast portions of the Specific Plan area. Both of these deposits have the potential to be used for construction materials.

Mineral resources in the City have been identified by the Department of Conservation Division of Mines and Geology as potentially containing concrete aggregate resources consistent with the majority of the Barstow and Victor Valley areas. These resources are not considered to be significant due to the vast availability of similar deposits in the region. Further exploration would be necessary in order to identify the area as having significant resources which have been determined to have economic value. Information indicates that the Mojave River and Horsethief Canyon may have resources present based on similarities to proven deposits. Further exploration could result in upgrading the classification to an economically valuable mineral resource. However, the area is identified as containing mostly sand. Additional mineral resources have not been identified within the planning area.

■ 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

Hesperia General Plan

The Hesperia General Plan policy that is applicable to mineral resources¹¹ is as follows:

- Policy CN-7.5** Promote the utilization of environmentally sensitive construction materials to limit impacts on the ozone, global climate change and mineral resources.

■ 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:

- 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

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact mineral resources.

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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The City is only required to analyze mineral resource recovery areas that have been designated by the State as MRZ-2 (significant existing or likely mineral deposits). The City of Hesperia currently has not identified any known mineral resources that would be of value to the region and the residents of the state. Further exploration of the Mojave River and Horsethief Canyon may identify significant mineral resources but there are currently no known resources. Therefore, 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 locally important mineral resource sites delineated on the City's General Plan. Therefore, there would be ***no impact***.

¹¹ 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.

■ Cumulative Impacts

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

■ References

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

4.8.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 major source of noise in the City of Hesperia is vehicular traffic. This includes automobiles, trucks, buses and motorcycles. The level of vehicular traffic noise varies with many factors, including traffic volume, vehicle mix (truck percentage), traffic speed, and distance from the roadway. Major east-west roadways that are a major source of noise include State Route 138, Summit Valley Road, Ranchero Road, Mesquite Street, Muscatel Street, Sultana Street, Phelan Road, Main Street, Rock Springs Road, Mauna Loa Street, Lemon Street, Eucalyptus Street, and Bear Valley Road. Major north-south roadways include Baldy Mesa Road, Caliente Road, Highway 395, I-15, Mariposa Road, Escondido Avenue, Fuente Avenue, Maple Avenue, Cottonwood Avenue, Seventh Avenue, Third Avenue, Santa Fe Avenue East, Hesperia Road, E Avenue, I Avenue, Peach Avenue, and Arrowhead Lake Road. Estimated noise levels on these roadways at 50 feet from the centerline ranges from 49 dBA CNEL to 78 dBA CNEL.

Rail

Rail operations on the Burlington Northern Santa Fe (BNSF) and Union Pacific Railroad (UPRR) in Hesperia are a source of noise and vibration from train pass-bys.

Stationary Sources

Stationary noise sources include industrial and commercial land uses such as manufacturing plants, processing plants, motorcycle parks, automobile repair and power generators. Ancillary equipment that generates noise includes heating, ventilation and air-conditioning equipment and emergency generators. In residential areas, stationary noise sources include air conditioners and swimming pool /spa mechanical equipment. The noise level associated with these sources varies with the type of noise source and the distance from the noise source. There are many stationary noise sources throughout the City of Hesperia. However, the majority of the industrial noise sources are located in the area north of Main Street, south of Bear Valley Road, east of Santa Fe Avenue, and west of I Avenue. Other commercial areas are located along Main Street, Phelan Road, Bear Valley Road, Hesperia Road, I-15, and near the I-15/Main Street interchange.

Airports

Hesperia Airport is located in the southern part of the City. The Hesperia Airport is a privately owned, public use airport. The Hesperia Airport accommodates emergency air services such as air ambulances, California Highway Patrol, and fire control aircraft. The 60 dBA CNEL contour extends approximately 350 feet east and west from the center of the runway, and approximately 1,000 feet north and south from the ends of the runway. There are several residences located within the 60 dBA CNEL airport noise contour. There are no private airstrips in or within the vicinity of the City of Hesperia or its sphere of influence. There are two airports outside of the City's planning area: Apple Valley Airport and Southern California Logistics Airport. The City of Hesperia is not located in the airport land use plans for these airports.

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, libraries, hospitals, 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.

Local

City of Hesperia Municipal Code

Hesperia Municipal Code Section 16.20.125 has adopted standards for noise emanating from a source in its zoning districts, as it affects adjacent properties (Table 4.8.12-1 [Noise Standards]).

Table 4.8.12-1 Noise Standards		
<i>Affected Land Use (Receiving Noise)</i>	<i>Maximum Noise Level</i>	<i>Time Period</i>
A-1, A-2, R-1, R-3, and RR Zone Districts	55 dBA	10:00 PM–7:00 AM
A-1, A-2, R-1, R-3, and RR Zone Districts	60 dBA*	7:00 AM–10:00 PM
C-1, C-2, C-3, C-4, C-R, AP, and, P-I Zone Districts	65 dBA*	Anytime
I-1 and I-2 Zone Districts	70 dB(A)*	Anytime

SOURCE: City of Hesperia Municipal Code Section 16.20.125.

* Due to wind noise, the maximum permissible noise level may be adjusted so that it is no greater than 5 dB(A) above the ambient noise level.

The Municipal Code also establishes that no ground vibration is allowed that can be felt without the aid of instruments at or beyond the lot line, nor is any vibration permitted that produces a particle velocity greater than or equal to 0.2 inch per second measured at or beyond the lot line.

Municipal Code Section 16.20.130 exempts noise and vibration associated with temporary construction, repair, or demolition activities between 7:00 AM and 7:00 PM except Sundays and federal holidays.

Land Use Compatibility Criteria

The City’s General Plan establishes noise and land use compatibility standards and outlines goals and policies to achieve these standards. The City follows the state’s general plan guidelines (2003) for land use compatibility with regard to noise. The City applies the criteria in the noise guidelines to determine the compatibility of land uses when evaluating proposed development project. A land use located in an area identified as “normally acceptable” indicates that standard construction methods would attenuate exterior noise to an acceptable indoor noise level and that people can conduct outdoor activities with minimal noise interference. Land uses that fall into the “conditionally acceptable” noise environment should prepare an acoustical study that considers the type of noise source, the sensitivity of the noise receptor, and the degree to which the noise source has the potential to interfere with sleep, speech, or other activities characteristic of the land use. For land uses where the exterior noise level falls within the “conditionally unacceptable” range, new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made with noise insulation features included in the design. For land uses where the exterior noise levels fall within the “clearly unacceptable” range, new construction generally should not be undertaken.

Interior and Exterior Noise Standards

The City of Hesperia has developed policies related to land use and acceptable noise levels as shown in Table 4.8.12-2 (Interior and Exterior Noise Standards). This allows the City of Hesperia 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.

Table 4.8.12-2 Interior and Exterior Noise Standards			
<i>Land Use Categories</i>	<i>Community Noise Equivalent Level (CNEL)</i>		
	<i>Land Uses</i>	<i>Interior</i>	<i>Exterior</i>
Residential	Single family, duplex, multiple family	45	65
	Mobile homes	n/a	65
Commercial, Industrial, Institutional	Hotel, motel, transient lodging	45	65
	Commercial retail, bank, restaurant	55	n/a
	Office building, research and development, professional offices, City office building	50	n/a
	Amphitheater, concert hall, meeting hall	45	n/a
	Gymnasium (multi-purpose)	50	n/a
	Sports club	55	n/a
	Manufacturing, warehousing, wholesale, utilities	65	n/a
Institutional	Hospitals, school classrooms	45	65
	Church, library	45	n/a
Open Space	Parks	n/a	65

SOURCE: City of Hesperia, *Hesperia General Plan (2010)*, Table NS-4.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to noise and vibration¹² are as follows:

- Policy NS-1.1** Incorporate noise reduction features during site planning and into land use planning decisions to mitigate anticipated noise impacts on affected noise-sensitive land uses.
- Policy NS-1.2** Control and abate undesirable sounds through the use of the land use compatibility criteria shown in Exhibit NS-1, Table N-3, and Municipal Code Section 16.20.125(B).
- Policy NS-1.3** Enforce the California Noise Insulation Standards (California Code of Regulations, Title 24). Title 24 requires that an acoustical analysis be performed for all new multifamily residences in areas where the exterior sound level exceeds 60 dBA CNEL. The analysis shall ensure that the building design limits the interior noise environment to 45 dBA CNEL or below.
- Policy NS-1.4** Require that an acoustical analysis be performed for all new single-family residences in areas where the exterior sound level exceeds 60 dBA CNEL. The

¹² 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.

analysis shall ensure that the building design limits the interior noise environment to 45 dBA CNEL or below.

- Policy NS-1.5** Require the design and construction of commercial, industrial, office and mixed-use structures developments with noise attenuation methods to minimize excessive noise upon noise-sensitive land uses.
- Policy NS-1.6** Provide developers and builders with development noise policy guidelines. The guidelines shall provide specific design criteria, minimum standards for submittal of acoustical studies and descriptions of acceptable noise mitigation measures.
- Policy NS-1.7** Ensure that areas frequent outdoor use at noise-sensitive land uses are not subjected to inappropriate noise levels resulting from transportation systems.
- Policy NS-1.9** Encourage commercial, industrial, office and mixed-use developments to locate loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from noise-sensitive land uses.
- Policy NS-1.10** Limit the hours of construction activity in, and around, residential areas in order to reduce the intrusion of noise in the early morning and late evening hours and on weekends and holidays.
- Policy NS-1.13** Ensure adequate noise control measures at construction sites by requiring that construction equipment be fitted with manufacturer-recommended mufflers and ensuring physical separation of machinery maintenance and staging areas from adjacent residential uses.
- Policy NS-2.1** Control exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels as set forth in Table NS-1 and Municipal Code Section 16.20.130.

■ 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 Hesperia General Plan. GHG reduction measures selected by the City of Hesperia in the Regional Reduction Plan were reviewed to determine which actions could result in changes that could affect noise levels in Hesperia 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 (TOD). Land use planning that encourages transit-oriented TOD 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 noise. 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 16.20 (General Plan Land Use Compatibility Criteria) and General Plan Policies NS-1.1 through NS-1.13 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 General Plan Policy NS-2.1 and the Hesperia Municipal Code (Section 16.20) 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 Hesperia.

Land use planning that encourages transit-oriented TOD 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 16.20 (General Plan Land Use Compatibility Criteria) and General Plan Policies NS-1.1 through NS-1.13 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 development could be a temporary source of noise. The City limits construction activities to certain times, and exempts construction noise from noise standards.

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 16.20 (General Plan Land Use Compatibility Criteria) and General Plan Policies NS-1.1 through NS-1.13 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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Hesperia Airport is located in the southern part of the City. Implementation of the measures in the Regional Reduction Plan would augment existing City programs and policies with regard to transit-oriented development (TOD). Land use planning that encourages transit-oriented TOD along existing and planned transit corridors could increase the population who could be exposed to noise from airport operations. It is the policy of the City of Hesperia 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 Hesperia Airport 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 are no private airstrips in or within the vicinity of the City of Hesperia or its sphere of influence. There would be *no impact*.

■ Cumulative Impacts

Cumulative development is expected to result in an increase in ambient noise levels in Hesperia, 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 Hesperia in the Regional Reduction Plan would not result in a cumulatively considerable contribution to those impacts. Potential noise impacts associated with implementation of Hesperia'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 Hesperia would not result in impacts that are cumulatively considerable, and this would be a *less-than-significant cumulative impact*.

■ References

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. n.d. *City of Hesperia Municipal Code*.

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

4.8.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 population of Hesperia in 2010 was 90,173, up from 89,617 in 2008, making Hesperia the seventh largest city in San Bernardino County. The population is expected to increase by 10 percent compared to 2008. The city expects a 22 percent growth in employment before 2020, one of the highest in the county. The city also has a high homeownership rate (71 percent).

Table 4.8.13-1 (Socioeconomic Data for Hesperia) presents socioeconomic data for Hesperia, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

<i>Category</i>	2008	2020
Population	89,617	98,613
Housing (DUs)	26,266	28,892
Single-Family (DUs)	21,546	23,700
Multifamily (DUs)	4,720	5,192
Employment (jobs)	15,537	20,436
Agricultural (jobs)	80	146
Industrial (jobs)	4,217	6,184
Retail Commercial (jobs)	3,993	4,762
Non-Retail Commercial (jobs)	7,247	9,345

■ Regulatory Framework

Federal

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

Hesperia General Plan

The Hesperia General Plan Housing Element policies that are applicable to housing¹³ in the context of implementing the Regional Reduction Plan in Hesperia are as follows:

- Policy 1.5** Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.
- Policy 3.2** Encourage development of residential uses in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.

Other policies in the General Plan that address housing include:

- Policy LU-2.2** Provide opportunities for a wide range of quality residential developments that accommodate the City's economic and demographic population.
- Policy LU-2.3** Provide opportunities for a variety of residential densities to accommodate rural and suburban lifestyles, and housing types for all economic and demographic segments of the City's population, with convenient access to public facilities, employment and shopping.
- Policy LU-2.4** Utilize mixed-use development to create unique and varied housing.
- Policy LU-2.5** Encourage conservation, maintenance, and rehabilitation of the existing housing stock.
- Policy LU-6.6** Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.

■ 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

¹³ 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.

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)?
-----------	--

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 and contains no housing component. 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 (such as On-Road-1 and PS-1) 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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

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

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4.8.14 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 libraries) in the City of Hesperia from implementation of the Regional Reduction Plan. Park services are addressed in Section 4.8.15 (Recreation). Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.8.17 (Utilities/Service Systems). Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 Hesperia is served by the San Bernardino County Fire Department. The Hesperia Fire Department is dedicated to providing the residents of Hesperia with responsive, high-quality services that protect its citizens, the environment and the community's economic vitality. Currently, there are four fire stations within the City of Hesperia, Stations 302, 303, 304, and 305. In addition Stations 22 and 40 are outside of the City.

Police Protection Services

The San Bernardino County Sheriff's Department provides police protection and crime prevention services for the City of Hesperia on a contractual basis. The Hesperia Police Department is located at 15840 Smoketree Street and is adjacent to the City Hall and Library, surrounding the Hesperia Civic Plaza. Law enforcement activities within the City of Hesperia include marked-unit patrol, traffic enforcement, gang enforcement, graffiti/vandalism investigation, abatement and advanced investigation.

The station has a staff of 54 law enforcement personnel including one captain, one lieutenant, 7 sergeants, 5 detectives, and 40 deputy sheriffs. The Hesperia Police Department also has a Citizen Patrol of approximately 75 volunteers that perform a variety of crime prevention tasks including, vacation home checks, residential and business security checks, and neighborhood watch. Average response time for emergency calls in the City is 4 minutes and 3 seconds.

Schools

The Hesperia Unified School District (HUSD) is the largest school district in the high desert and serves the City of Hesperia as well as portions of the Oak Hills Community Plan area. The HUSD covers nearly 160 square miles and serves approximately 21,000 K–12 students with 15 elementary schools, 3 junior high schools and six high schools. In addition to the HUSD, the Snowline Joint Unified School District (SJUSD) serves the Hesperia community, bound by Phelan Road to the north, Highway 395 to the east and Mesa View Road to the west. Several charter schools and private schools also provide educational opportunities within the City of Hesperia.

Libraries

The main and only library in the city is the Hesperia Branch Library, which is operated through the County of San Bernardino and is located at the Civic Center Plaza, 9650 Seventh Avenue. The 20,000 square foot facility was built in 2006 and offers a variety of resources, services and programs in addition to book circulation for residents. This includes various preschool activities, children's services, teenage activities, adult clubs, and book sales.

■ 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 Hesperia Municipal Code

The City of Hesperia has adopted the 2010 Uniform Fire Code (Municipal Code Section 15.040.010). Municipal Code Chapter 16.04 regulates site and building development in accordance with applicable building and fire codes.

Hesperia General Plan

The Hesperia General Plan policy that is applicable to public services¹⁴ in the context of the Regional Reduction Plan implementation measures is as follows:

¹⁴ 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-6.7** Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
- Policy LU-8.2** Coordinate land use planning with infrastructure provision and planning, both within the City and within the sphere of influence, to ensure adequate, convenient, and efficient provision of support services as development occurs, funded by those who benefit.

■ 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:
 - > Fire protection and emergency medical response
 - > Police protection
 - > Schools
 - > Libraries

Analytic Method

The reduction measures selected by Hesperia 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 fire protection and emergency medical response?
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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 Hesperia 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 Hesperia 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

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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. 2013. City of Hesperia Fire Department. <http://cityofhesperia.us/index.aspx?NID=183> (accessed March 12, 2013).

Hesperia, City of. 2013. City of Hesperia Police Department. <http://www.cityofhesperia.us/index.aspx?nid=306>.

National Fire Protection Association (NFPA). 2013. NFPA 1710. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1710> (accessed February 20, 2013).

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

4.8.15 Recreation

This section of the EIR analyzes the potential environmental effects on public parks and other recreational facilities in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a) and associated environmental impact report (2010b). 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 Hesperia.

■ Environmental Setting

Parks and Recreational Facilities

The Hesperia Recreation and Park District (HRPD or District) is an independent special district within the County of San Bernardino. HRPD was created in 1957 to meet the residential needs of the growing community. The HRPD encompasses approximately 100 square miles, including the 75 square miles within the City of Hesperia. HRPD constructs and maintains parks, recreation facilities, retention basins, Landscape Maintenance Districts, streetlights, and other recreational services and programs to the community.

There are 14 parks and recreational facilities throughout the city. The District has a combined total park and open space acreage of 2,466 acres. The City of Hesperia has partnered with HRPD to create the Hesperia Civic Plaza Park, Malibu Park, Mojave Park, and Maple Park. In addition, HRPD coordinates developing parks adjacent to school sites. In addition to the many park facilities within the city, there is also an abundance of passive recreational activities such as horseback riding and hiking along the Mojave River, washes adjacent to the Interstate 15 (I-15) freeway, and within the Southern California Edison easements that traverse the city.

In addition to parkland within the City, the City and HRPD provide several community facilities that are available to City residents. These include the Rick Novack Community Center at Palm Street Park, the Percy Bakker Community Center, the Green Flag Raceway for slot car races, and the Epicentre and Powerplay centers for teens.

Trails and Recreation Linkages

HRPD and the City of Hesperia seeks to provide passive recreation uses such as bike, equestrian and pedestrian trails, along with preserving open space areas for natural resources, resource management, and public health and safety. Trails provide a necessary connection between people and recreational facilities. They also provide opportunities for passive recreational activities. The 2010 General Plan outlines that trails should be developed along travel corridors to establish alternative modes of transportation, along rivers, streams, washes and similar open space amenities to promote passive recreation and preserve and utilize natural scenic areas. The selection of trails should be developed as a network and used to connect popular destinations.

The City has established three types of bike path trails based upon the Hesperia population and needs. Class One bike paths are a dedicated bike path outside the street vehicular right of way. Class Two bike paths are a dedicated painted bike lane in the vehicular right of way on the street. Class Three bike paths are signed for vehicles to share the road with bikes. Class One, Class Two, and Class Three bicycle trails have been officially established in the Non Motorized Transportation Plan, located in the Open Space Element of the General Plan Update. These trails are shown in Figure 4.8.15-1 (City of Hesperia Non-Motorized Transportation Plan). An equestrian trail has been established by the Hesperia Park and Recreation District. While a bike path trail plan is in place, much of the trail system is not developed, and will be constructed with development entitlements, grants and development impact fees.

The wash east of the I-15 freeway provides an opportunity to create a trail system that connects to the California Aqueduct, which can be improved with a pedestrian, bicycle and equestrian trail. This would provide a contiguous trail extending from the southern City boundary to the aqueduct and from there, bisecting the City and linking it to regional trails and recreational facilities outside of the City, including the Pacific Crest National Trail.

Regional Facilities

The San Bernardino National Forest (SNBF), south of Hesperia, is the closest maintained national recreational area within the region. Silverwood Lake State Recreation Area is also south of Hesperia. Mojave Narrows Regional Park in Victorville is north of the City, and Mojave River Forks Regional Park is southeast.

■ Regulatory Framework

Federal

There are no federal regulations that are applicable to the provision of recreation, park, and trail facilities in Hesperia.

State

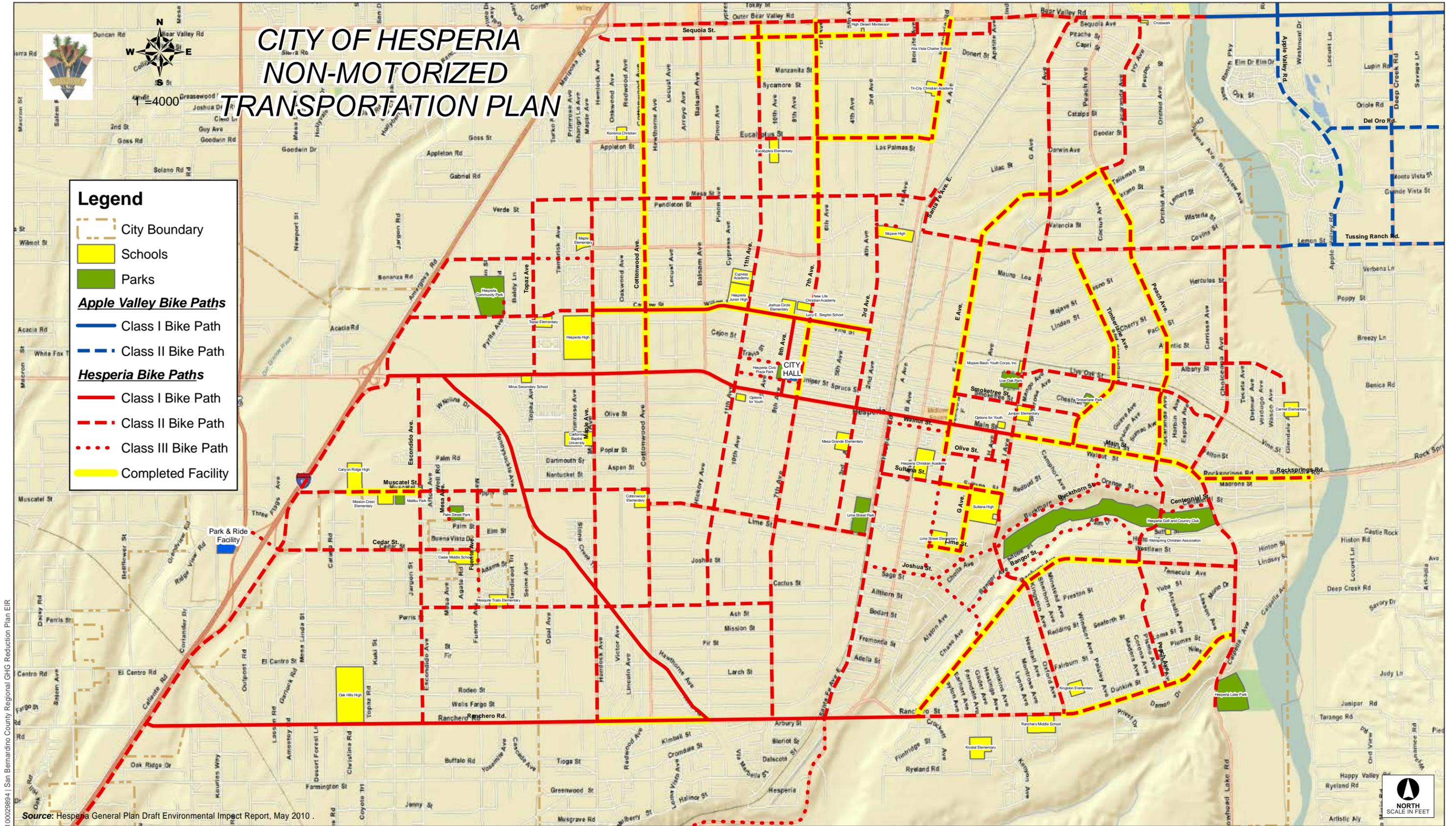
Quimby Act

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 and Mojave River Forks Regional Park.



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Figure 4.8.15-1

City of Hesperia Non-Motorized Transportation Plan

Local

City of Hesperia Municipal Code

Section 10.24.030 of the Municipal Code (Travel Demand Management) requires the City to establish a long-range plan for a bicycle trail system. The City adopted Ordinance 130 establishing a city-wide bicycle trail system and associated design standards. The purpose of the system is to establish a long-range plan for the City that will encourage the development and use of bicycles for commuter-oriented transportation. The City is an active participant in the Bicycle Plan Advisory Committee, a standing committee of SANBAG that is pursuing the establishment of a regional bicycle transportation network.

Hesperia General Plan

The Hesperia General Plan policies that are applicable to recreational facilities¹⁵ that include pedestrian and bicycle trail networks are as follows:

- Policy OS-6.1** Provide an interconnecting plan in conjunction with surrounding agencies to provide regional trails.
- Policy OS-6.2** Continue to maintain and provide access to open space areas and recreational facilities.
- Policy OS-6.3** Provide a comprehensive network trails plan that connects residents to open space areas, recreational facilities, and areas of interest.
- Policy CI-1.12** Encourage alternative modes of transportation including bus, bicycle, pedestrian, and equestrian through street design.

In addition to General Plan policies, the City's Climate Action Plan (CAP) (2010c) also includes strategies intended to increase bicycle use through a safe and well-connected system of bicycle paths and end-of-trip facilities (Strategy CAP-6).

■ 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

¹⁵ 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.

Analytic Method

The reduction measures selected by Hesperia 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. Policies in the General Plan (Policies OS-6.1 through OS-6.3 and CI-1.12) and Strategy CAP-6 are consistent with the Regional Reduction Plan goals. 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 4.8.4 [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

Hesperia, City of. 2010a. *Hesperia General Plan*.

———. 2010b. *Draft Environmental Impact Report for the City of Hesperia General Plan Update*, May.

———. 2010c. *City of Hesperia Climate Action Plan*, July.

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

4.8.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a), associated environmental impact report (2010b), 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 (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 Hesperia circulation system includes one freeway, two Burlington Northern and Santa Fe (BNSF) rail lines, one the Union Pacific Railroad (UPRR) rail line, and a system of arterial and local streets.

Roadway Network

The City of Hesperia has the following roadway classifications for local roadways within the City:

- **Super Arterials** accommodate six lanes of traffic, with landscaped medians. These facilities are the principal thoroughfares through the City intended to carry high traffic volumes.
- **Major Arterials** also accommodate six lanes of traffic, with landscaped medians. They are also designed to carry high volumes of traffic intended to link freeways with local streets.
- **Arterials** accommodate four lanes of traffic that link to collector and local streets.
- **Secondary Arterials** accommodate two lanes of traffic that link collectors to Arterials and Major Arterials.
- **Modified Arterials** accommodate two lanes of traffic and are based on the specifications of a secondary arterial, with slightly varying characteristics such as curb-to-curb distance and parkway width.
- **Collector Streets** are two-lane 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.
- **Industrial Collectors** are two-lane streets designed to provide access in industrial areas and to accommodate a higher percentage of truck traffic.

- **Local Streets** are two-lane streets designed to provide access to local neighborhoods and individual properties.

Figure 4.8.16-1 (Traffic Circulation Plan) shows the various roadway classifications.

Rail Lines and Crossings

Three rail lines and a branch line traverse the City of Hesperia; one UPRR rail line in the northwest/southeast direction and two BNSF rail lines in the north/south direction with a branch line running from the BNSF tracks easterly. The UPRR line connects West Colton to Palmdale through the southwest portion of Hesperia's sphere. The BNSF rail lines that bisect the City are part of their major transportation corridor that transports goods and services from the ports in Long Beach and Los Angeles to the western and central portions of the United States. A branch line to Lucerne Valley runs easterly from the BNSF mainline, crossing Hesperia's eastern city boundary into Apple Valley near the Rock Springs Road crossing.

The UPRR has one at-grade crossing at Ranchero Road and two grade-separated crossings at Mariposa Road and Amargosa Road. BNSF has only two grade-separated crossings at Main Street and Bear Valley. The spur to Lucerne Valley has at-grade crossings at I Avenue and Peach Avenue with a bridge traveling over the Mojave River in Hesperia and a bridge over Deep Creek Road in the Town of Apple Valley.

Transit

Amtrak

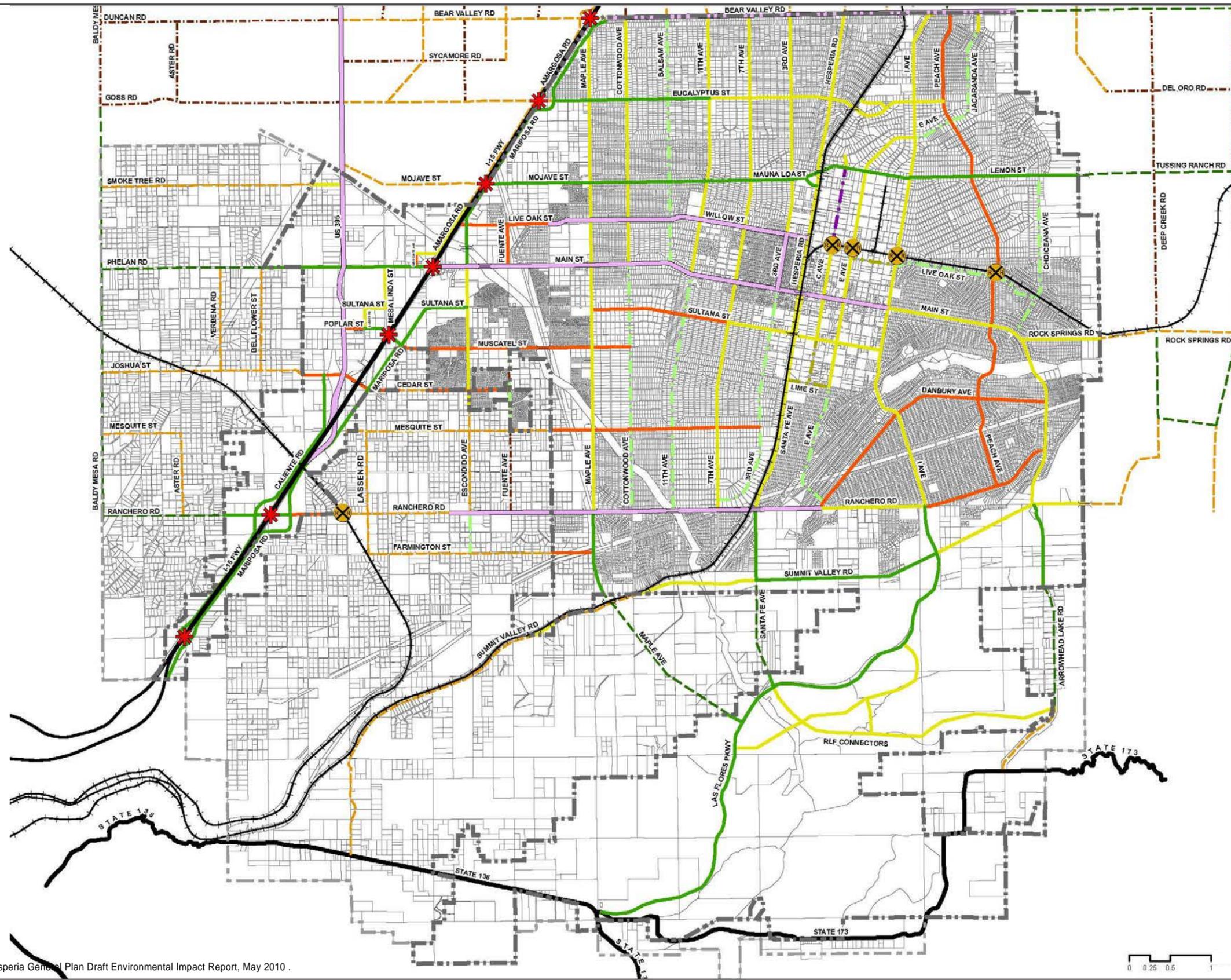
The Amtrak Southwest Chief passenger train regularly passes through Hesperia on the BNSF main railroad line. The train route travels from Los Angeles to Chicago, Illinois. The nearest Amtrak station is located in the City of Victorville. The station includes a bus stop and a Park and Ride, facilitating use of Amtrak by commuters from Hesperia

Bus Transit

The Victor Valley Transit Authority (VVTA) provides the local bus service for the City and adjacent communities of Adelanto, Apple Valley, Victorville, and San Bernardino County. VVTA operates five bus routes in Hesperia, providing bus connections between shopping centers, public facilities, the Mall of Victor Valley, hospitals, schools, colleges, and residential areas.

- **Route 21**—VV Mall–Serrano High–Wrightwood (Phelan–Baldy Mesa–Bear Valley)
- **Route 43**—VV Mall–VV College–Apple Valley High (Bear Valley–7th Ave)
- **Route 44**—VV Mall–Hesperia City Hall–Sultana High (Bear Valley–Cottonwood–Main–7th Ave.)
- **Route 44**—Desert Valley Hospital–VV College–Hesperia Post Office (Bear Valley–Main)

Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .



Arterials		(RoW) (Curb-Curb)	
Major Arterial	(120')	(104')*	(92)**
Arterial	(100')	(72')	
Secondary Arterial	(80')	(50')	
Industrial Collector	(70')	(46)**	
Suburban Collector	(60')	(36)**	
Rural Collector	(60')	(48)*	(40)**

Streets Outside City	
Major Arterial	
Arterial	
Collector	

Misc.	
City Boundary	
Sphere of Influence	
Railroad	
At Grade Crossing	
Bridge/overcrossing/undercrossing	
Freeway Interchange	

Special Street Section		(RoW) (Curb-Curb)	
Ranchero Road	(140')	(92')	
Highway 395	(130')	(106')	
Bear Valley Road (halfwidth)	(64')	(45')	
Enhanced 3rd Avenue	(100')	(76')	
Main Street Corridor "A"	(120')	(88')	
Main Street Corridor "B"	(105')	(70')	
Modified Live Oak-Willow St	(80')	(40')	

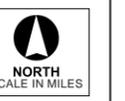
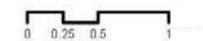


Figure 4.8.16-1
Traffic Circulation Plan

Non-Motorized Transportation

Bikeways System

The City provides for bicycle transportation through its bikeway system. The existing and proposed bikeway system is depicted on Figure 4.8.16-2 (Non-Motorized Transportation Plan). The City's bikeways traverse all areas of the City and have interconnections with the Apple Valley Bikeways.

■ 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 reviews and approves

Metropolitan Planning Organizations (MPOs) 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 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 Southern California Association of Governments (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.



1"=2000'

CITY OF HESPERIA NON-MOTORIZED TRANSPORTATION PLAN

Legend

- City Boundary
- Schools
- Park_Name**
- Parks
- Apple Valley Bike Paths**
- Class I Bike Path
- Class II Bike Path
- Hesperia Bike Paths**
- Class I Bike Path
- Class II Bike Path
- Class III Bike Path
- Completed Facility

100029894 | San Bernardino County Regional GHG Reduction Plan EIR

Source: Hesperia General Plan Draft Environmental Impact Report, May 2010 .



Figure 4.8.16-2
Non-Motorized Transportation Plan

- 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 (PM₁₀, PM_{2.5}, 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.

San Bernardino Associated Governments (SANBAG)

San Bernardino Associated Governments (SANBAG) is an association of local San Bernardino County governments. It is the metropolitan planning organization (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 Congestion Management Program (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 Congestion Management Program (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 of California requirements of a Bicycle Transportation Plan (BTP) for purposes of Caltrans Bicycle Transportation Account (BTA) funding.

Local

Hesperia General Plan

The Hesperia General Plan contains the following policies regarding transportation, mobility and traffic¹⁶:

- Policy CI-1.1** Systematically improve the public roadway system to meet existing and future demands within the planning area.
- Policy CI-1.2** Establish and maintain standards for a variety of street classifications to serve both local and regional traffic.
- Policy CI-1.3** Ensure that the appropriate street design is provided for all streets based on their designation on the City's adopted Transportation Plan.
- Policy CI-1.4** Develop a Traffic Circulation Plan sufficiently flexible to accommodate short term improvements, while maintaining the integrity of the long range plan.
- Policy CI-1.5** Adopt a comprehensive Transportation Plan which makes efficient use of the existing road network, improves circulation patterns in congested areas, provides increased access to areas presently lacking road infrastructure, provides consistency with plans for adjacent areas and federal and state highways, and minimizes impacts to residential neighborhoods.
- Policy CI-1.6** Annually adopt a multi-year Capital Improvement Program and budget to ensure the organized financing and construction of roadway improvements.
- Policy CI-1.7** Maximize the use of available Federal, State, and County funds in the implementation of the adopted Traffic Circulation Plan through interagency coordination.
- Policy CI-1.8** Assure efficient use of road improvement funds through cooperation with other agencies and jurisdictions.

¹⁶ 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 CI-1.9** Periodically review the street roadway classifications for streets on the Traffic Circulation Plan to maintain support for surrounding land uses and anticipated new development.
- Policy CI-1.10** Ensure that new development provides for adequate road improvements to serve internal circulation needs, as well as to mitigate impacts of increased traffic on the existing road system.
- Policy CI-1.11** Encourage alternative modes of transportation including bus, bicycle, pedestrian, and equestrian through street design.
- Policy CI-1.12** Provide for a safe and efficient pedestrian network.
- Policy CI-1.13** Where feasible, create opportunities for horseback riding, hiking, jogging, running, walking and bicycling through the establishment of interconnected trail systems throughout the community accessing parks, recreational facilities, scenic areas and areas of interest.
- Policy CI-1.14** Coordinate with San Bernardino County Flood Control District and Southern California Edison Company to promote utilization of easements for the trail system.
- Policy CI-2.1** Strive to achieve and maintain a LOS D or better on all roadways and intersections: LOS E during peak hours shall be considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, Highway 395).
- Policy CI-2.2** Work with regional agencies which have authority over roadways within the City to ensure a minimum Level of Service D for roadways and a minimum Level of Service E for intersections.
- Policy CI-2.3** Incorporate into the City's multi-year Capital Improvement Program improvements designed to improve the existing deficient Levels of Service on existing roadways and intersections operating at deficient LOS.
- Policy CI-2.4** Develop policies and regulations to ensure that future development does not reduce the Level of Service of roadways and intersections below the minimum Levels of Service goals.
- Policy CI-2.5** Maintain the City's development impact fee program for future development which includes improvements to roadways to mitigate of the impact of the new development.
- Policy CI-2.6** Synchronize traffic signalization systems to minimize traffic delays.
- Policy CI-2.7** Review and monitor street improvements to ensure that improvements optimize traffic flow efficiency.
- Policy CI-2.8** Reduce trip generation through development and implementation of Transportation Demand Management Programs.
- Policy CI-3.1** Reduce delays to local traffic, facilitate emergency response, and enhance safety by increasing the number of grade separations.
- Policy CI-3.2** Coordinate with the Caltrans, regional transportation agencies, and neighboring jurisdictions concerning the improvement and construction of needed freeway

interchanges and other barrier crossings to relieve traffic congestion and improve circulation, and to improve the coordination of traffic signals at existing freeway interchanges with those on City streets.

- Policy CI-3.3** Coordinate with the BNSF, the Union Pacific Railroad and appropriate funding agencies to ensure the timely development of needed railroad grade separations.
- Policy CI-4.2** Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking.
- Policy CI-4.3** Discourage non-local traffic from using neighborhood streets through project design and traffic control measures.
- Policy CI-4.5** Develop an efficient and effective truck route system that is compatible with land uses and street improvement standards, and provide monitoring to ensure compatibility.
- Policy CI-5.1** Provide a wide range of travel alternatives to the use of single occupancy vehicles.
- Policy CI-5.2** Work with Caltrans and SANBAG to provide additional park-and-ride lots at key locations near existing and proposed interchanges with Interstate 15.
- Policy CI-5.3** Continue to participate with the Victor Valley Transit Authority to ensure there are adequate routes to provide efficient, adequate, safe service for the community.
- Policy CI-5.4** Continue to work with and support the Victor Valley Transit Authority in providing transit facilities for elderly and handicapped residents.

City of Hesperia Intersection Analysis Criteria

The City of Hesperia 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 4.8.16-1 (Intersection Level of Service [LOS] Definitions) summarizes the LOS definitions in the HCM.

Table 4.8.16-1 Intersection Level of Service (LOS) Definitions		
LOS	Interpretation	Volume to Capacity (V/C) Ratio
A	There are no stables 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 Regional Transportation Plan (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 CI-1.12 (Alternative Modes of Transportation) and CI-5.1 through CI-5.4 (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, which correlates with General Plan Policy CI-1.12 and the City of Hesperia Non-Motorized Transportation Plan (Figure 4.8.16-2). 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 CPM 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 is considered *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 Congestion Management Program (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 CPM roadways. Transit and nonmotorized transportation infrastructure built on all roadways, including CPM 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 is considered ***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 is considered ***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 furthers The General Plan Policy CI-1.12 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 CI-4.1 through CI-4.4 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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4.8.17 Utilities/Service Systems

This section of the EIR analyzes the potential environmental effects on utilities/service systems (water supply, storage, and distribution; wastewater collection, transmission, and treatment; solid waste; and energy) in the City of Hesperia from implementation of the Regional Reduction Plan. Data for this section were taken from Hesperia General Plan (2010a), associated environmental impact report (2010b), the 2010 Urban Water Management Plan, Water Master Plan, Recycled Master Plan, and Wastewater Master Plan (2008). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing utilities/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 Hesperia sits above the Upper Mojave River Basin within the jurisdiction of the Mojave Water Agency, and draws its water from the Alto subbasin. Imported State Water Project (SWP) water via Mojave Water Agency (MWA) is used to recharge the Alto basin and then it is pumped out by the City's Water District. The City operates and maintains a water supply system through the Hesperia Water District (HWD) where all water is provided through use of wells and groundwater basins stored below the City. In addition, the City's recycled water is handled by the Victor Valley Wastewater Reclamation Authority (VWVRA) who provides the treatment and distribution of reclaimed water.

Local Water Supply and Reliability

The Mojave River Groundwater Basin comprises approximately 895,996 acres (1,400 square miles). The Basin has an estimated storage capacity of nearly 5 million acre-feet. For management purposes, the basin is split into subbasins. The Department of Water Resources (DWR) identifies the subbasin beneath the City of Hesperia as the Upper Mojave River Valley (sub) basin. The MWA identifies the subbasin as the Alto subarea. The subbasin extends throughout the City and beyond to Victorville and Apple Valley. The storage capacity of the Alto subbasin is approximately 2.1 million acre-feet. In the Mojave Basin Area, Base Annual Production (BAP) rights were assigned by the Mojave Basin Area Judgment to each producer using 10 acre-feet per year (afy) or more, based on historical production. BAP is defined as the producer's highest annual use verified for the 5-year base period from 1986–90. Parties to the Judgment are assigned a variable Free Production Allowance (FPA) by the Watermaster, which is a percentage of BAP set for each subarea for each year. The allocated FPA represents each producer's share of the water supply available for that subarea. This FPA is reduced over time until total FPA comes into balance with available supplies. Production Safe Yield (PSY) is also determined for each subarea within the Mojave River Groundwater Basin for each year. The PSY in each subarea is assumed to equal the average net natural water supply plus the expected return flow from the previous year's water production. The Judgment requires that in the event the FPA exceeds the estimated PSY by 5 percent or more of BAP, Watermaster recommends a reduction in FPA equal to, but not more than, a full 5 percent of the aggregate subarea BAP. Any water user that pumps more than their FPA in any year is required to buy

“Replacement Water” equal to the amount of production in excess of the FPA. Replacement Obligations can be satisfied either by paying the Mojave Basin Area Watermaster to purchase imported water from MWA or by temporarily transferring unused FPA within that subarea from another party to the Judgment.

Under the Judgment’s terms, HWD may produce as much groundwater as needed to satisfy its customer demands within its service area. HWD has been assigned Base Annual Production (BAP) rights of 13,688 afy. HWD has a projected FPA of 60 percent (8,213 afy) from 2010 to 2035 (City of Hesperia 2011). Because water use within the HWD service area is supplied entirely by groundwater, HWD does not have any inconsistent water sources that cause reduced deliveries to users within the service area.

Alto subarea water levels near the Mojave River are relatively stable exhibiting seasonal fluctuations with rising levels in winter and declining levels in summer. It is expected that under current pumping conditions and long-term average flows in the river, water levels in the Floodplain Aquifer will generally remain stable. Water levels in the western portion of Alto in the Regional Aquifer exhibit declines consistent with 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 and possibly higher localized septic return flow due to the lack of sewers in some areas. Continued pumping in depleted areas of the Regional Aquifer may result in long-term local negative impacts such as declining yields and water quality problems. As a whole, the Alto subarea appears to be in regional balance although portions of the subarea have shown continued historical declines (City of Hesperia 2011).

Water Distribution Systems

Municipal water system, HWD, extracts all of its water supply from the underground aquifers through 18 active groundwater wells located throughout the District. Groundwater recharge within the Alto subbasin primarily results from direction precipitation, ephemeral streamflow, infrequent surface stream flow of the Mojave River, and underflow of the Mojave River (City of Hesperia 2010b). Water is conveyed from the wells to the consumers via a distribution system with pipe sizes ranging between 4 and 24 inches in diameter. The HWD currently maintains 14 storage reservoirs within the distribution system with a total capacity of 64.5 million gallons.

Wastewater Collection and Treatment

Wastewater collection and treatment in the City is governed by the 2008 Wastewater Master Plan (WWMP). The WWMP serves to identify plans for collection system and wastewater treatment plant expansions. The City owns, operates, and maintains a wastewater collection system, including approximately 60 miles of gravity sewer pipe, 882 manholes, 51 cleanouts, 1 operational lift station, and 1 force main (City of Hesperia 2011). The primary sources of wastewater in the City’s system include sanitary flow from residential, commercial, and industrial sources. The City’s sewer system connects to VVWRA’s 3-mile interceptor that runs along the northeast boundary of the City, and ultimately flows to the Regional Wastewater Treatment Plant (RWWTTP) that is owned and operated by the VVWRA. The City’s wastewater is treated by the VVWRA, which shares a common interest in maximizing the beneficial uses of treated wastewater. Since the City of Hesperia is also the local planning agency with an adopted general land use plan, coordination is necessary between the City and HWD so the location of

future growth is known and accommodations provided. The City has a total of six outlets to the VVWRA interceptor. VVWRA conveys wastewater using 41.5 miles of interceptor sewer and two pump stations to its RWWTP, in the City of Victorville, approximately 15 miles north of the northern City boundary. The treatment plant currently has a total capacity of 18.0 million gallons per day (mgd). According to the City's 2008 WWMP, approximately 5 percent of the geographic area studied in the Master Plan is currently served by the City's sewers which ultimately flow to the VVWRA RWWTP. The remaining area is either undeveloped or served by on-site systems such as septic tanks (City of Hesperia 2011).

The City of Hesperia has future plans to expand its sewer collection system and, in conjunction with VVWRA, construct subregional wastewater treatment plants to treat the City's future wastewater flows and create a supply source for its planned recycled water system.

Solid Waste

Advance Disposal Company currently provides residential and commercial waste collection and recycling programs under a franchise agreement with the City. After waste is collected, it is delivered to the Materials Recovery Facility (MRF), owned and operated by Advance Disposal, located at 17105 Mesa Street in Hesperia. Approximately 63 percent of the solid waste generated in Hesperia is being recycled, exceeding the 50 percent requirement pursuant to the California Integrated Waste Management Act of 1989 (AB939). Currently, about 150 tons of the solid waste generated by the City per day is sent to the landfill. This remaining solid waste is placed in transfer trucks and disposed of at the Victorville Sanitary Landfill at 18600 Stoddard Wells Road in Victorville, owned and operated by the County of San Bernardino. The landfill is located approximately 15 miles northeast of the City. According to the California Solid Waste Information System (SWIS) Facility Database, the Victorville Sanitary Landfill has a total permitted capacity of 83,200,000 cubic yards and as of 2006, had remaining capacity of 98.8 percent or about 82,200,000 cubic yards. In 2009, approximately 54,509 tons of waste generated in Hesperia was sent to the landfill. The landfill is equipped to meet the current and identified future demands of the City. Plans for expansion of the facility to include updated equipment and increased permitted tonnage capacity are anticipated in the future.

Electricity

Electricity is provided to the City by Southern California Edison (SCE), located at located at 12353 Hesperia Road, Victorville. 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 Hesperia. 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 Hesperia, 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

Federal

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 U.S. Environmental Protection Agency (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.)

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.

Federal Communications Commission (FCC)

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite and cable in all fifty 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

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 does not enter surface water or groundwater supplies within the state

California Health and Safety Code Article 1 (Pure and Safe Drinking Water)

California Health and Safety Code Article 1, Section 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 of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 square feet 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 square feet 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 (CDWR 2003). The City of Hesperia UWMP is a foundational document for compliance with both SB 610 and SB 221.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires that all urban water suppliers prepare urban water management plans and update them every 5 years.

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.

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. They 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

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

California Code of Regulations Title 24, Part 6, establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2008 and set a goal of reducing growth in electricity use by 561 gigawatt-hours per year (GWh/y) and growth in natural gas use by

19.0 million therms per year (therms/y). The savings attributable to new low-rise nonresidential buildings are 102.2 GWh/y of electricity savings and 7.4 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Regional

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.

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.

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.

Local

City of Hesperia Municipal Code

City of Hesperia Municipal Code Title 14 (Public Utilities), Chapter 4.170 (Water Conservation Emergency Plan), provides a mandatory water conservation plan to minimize the effects of a water shortage on water customers of the City. Chapter 4.160 prohibits wasting water such as excessive irrigation and related unreasonable uses.

City of Hesperia Municipal Code Title 14 (Public Utilities), Chapter 8 (Wastewater Services), prescribes regulations related to wastewater discharge, sewer construction, connection, and maintenance. Additionally, this Chapter presents regulations pertinent to public and private sewage disposal systems.

City of Hesperia Municipal Code Title 8 (Health and Safety), Chapter 8.04 (Garbage and Refuse Collection and Disposal), 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.

City of Hesperia Municipal Code Title 5 (Business Licenses and Regulations), Chapter 64 (Telecommunications Regulations), Section 420 (Antennas for Telecommunications Services), requires review of installation of antennas and wireless communication facilities.

City of Hesperia Urban Water Management Plan

The City adopted its latest Urban Water Management Plan (UWMP) in 2010. The UWMP is a management tool, providing a framework for action, but not functioning as a detailed project development or action. It is important that this Plan be viewed as a long-term, general planning document, rather than as an exact blueprint for supply and demand management. Using the framework, the implementing agency will pursue feasible and cost-effective options and opportunities to meet demands. The District will explore enhancing basic supplies from traditional sources such as imported water from the Mojave Water Agency (MWA) as well as other options. These include groundwater extraction, water exchanges, recycling, desalination, and water banking/conjunctive use. Specific planning efforts will be undertaken in regard to each option, involving detailed evaluations of how each option would fit into the overall supply/demand framework, how each option would impact the environment, and how each option would affect customers. The objective of these more detailed evaluations would be to find the optimum mix of conservation and supply programs that ensure that the needs of the customers are met.

City of Hesperia Water Master Plan

In July 2008, the City adopted its Water Master Plan. This Master Plan was prepared to provide a reference document for the existing water system operations and maintenance and a framework for future water system planning. The plan objectives can be divided into four primary categories: facilities planning, supply/demand, operations, and capital improvements. The Master Plan incorporates the area's growth and development patterns into the water supply and demand projections. In addition, the Master Plan evaluates improvements that maximize the efficiency of system operations and ensures current and future water demands and water quality standards are met.

City of Hesperia Wastewater Master Plan

In July 2008, the City adopted its Wastewater Master Plan. The Master Plan was prepared to provide a reference document for the existing wastewater system operations and maintenance and a framework for future wastewater system planning. The overall goal of the Master Plan is to evaluate current and future system requirements by incorporating the area's growing development patterns into wastewater production projections. The Master Plan also evaluates options that maximize the efficiency of the system operations for proposed changes.

City of Hesperia Recycled Water Master Plan

As part of the City's effort in increasing recycled water use to lessen the use of potable groundwater suppliers for nonpotable demand uses, the City prepared a Recycled Water Master Plan (RWMP) in 2008. Through the RWMP, the City evaluates the potential of recycled water demand, the system requirements, and the feasibility of such a system. The Plan has a 25-year planning horizon through year 2032 and is prepared in conjunction with the Water Master Plan (WMP) and the Wastewater Master Plan (WWMP).

Hesperia General Plan Policies

The Hesperia General Plan provides a framework for the City’s physical development of infrastructure addressing all geographic areas in the City. Policies pertinent to utilities and service systems¹⁷ include:

- Policy CN-1.1** Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.
- Policy CN-1.2** Educate residents on water conservation methods with best practices and tips.
- Policy CN-1.3** Promote reduced use of high nitrate fertilizers, herbicides, pesticides and other chemicals in landscaping areas that can contaminate the quality of the groundwater.
- Policy CN-1.4** Limit the disturbance of natural water hydrology by minimizing the creation of impervious surface area and continued utilization of detention/retention basins and underground retention/detention facilities to recharge groundwater.
- Policy CN-1.5** Work with local agencies and jurisdictions to provide a coordinated effort to ensure a safe and constant water supply for the region.
- Policy CN-1.6** Encourage the use of low-water consumption fixtures in homes and businesses.
- Policy CN-1.7** Require new development to use new technology, features, equipment and other methods to reduce water consumption.
- Policy CN-2.1** Minimize impacts to washes that convey drainage by prohibiting development within drainage corridors that are not consistent with the Master Plan of Drainage.
- Policy CN-2.2** Encourage the use of reclaimed water for irrigation and other non-potable uses.
- Policy CN-2.3** Protect open space areas used for recharging groundwater basins.
- Policy CN-2.4** Continue to implement the use of reclaimed water through the City’s “purple pipe” ordinances and regulations to further the use of reclaimed and treated water.
- Policy CN-2.5** Implement the State and City laws and policies to develop retention basins for the replenishment of the underground water supply.
- Policy CN-2.6** Coordinate City policies and activities with the Victor Valley Wastewater Reclamation Authority.
- Policy CN-3.1** Monitor the development impacts to these surface water resources within the city.
- Policy CN-3.2** Preserve areas within the Oro Grande wash and un-named wash #1 that exhibit ideal native habitat in a natural state.
- Policy CN-6.1** Explore the potential for a green building program in the City to educate the development community and promote the conservation of natural resources.

¹⁷ 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 CN-6.2** Encourage the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.
- Policy CN-6.3** Provide incentives like technical assistance and low-interest loans for projects that are energy efficient and contain energy conservation measures.
- Policy CN-6.4** Educate the public about energy conservation techniques.
- Policy CN-6.5** Coordinate with the local energy provide in developing policies and procedures to reduce energy consumption in existing and future developments.
- Policy CN-6.6** Encourage residents and businesses to utilize the incentives provided by the local energy providers to retrofit their buildings and businesses for energy efficiency and conservation.
- Policy CN-6.7** Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
- Policy CN-7.4** Promote the utilization of alternative energy resources such as wind and solar in new development.
- Policy CN-7.8** Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.
- Policy CN-7.9** Promote sustainable principles in development that conserves such natural resources as air quality and energy resources.
- Policy CN-8.2** Implement measures to reduce exhaust emissions from construction equipment.
- Policy CI-1.14** Coordinate with San Bernardino County Flood Control District and Southern California Edison Company to promote utilization of easements or the trail system.
- Policy LU-6.1** Promote the use of green building standards and Leadership in Energy and Environmental Design (LEED), or other equivalent programs, in both private and public projects.
- Policy LU-6.2** Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, consistent with Policy LU-6.1.
- Policy LU-6.3** Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.
- Policy LU-6.4** Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.
- Policy LU-6.5** Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.

- Policy LU-6.7** Encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.
- Policy LU-8.1** Ensure that new development is fiscally sound and able to pay for the infrastructure and services needed to support it, in order to protect the City and existing residents from incurring additional costs to support growth.
- Policy LU-8.2** Coordinate land use planning with infrastructure provision and planning, both within the City and within the sphere of influence, to ensure adequate, convenient, and efficient provision of support services as development occurs, funded by those who benefit.
- Policy LU-8.4** Identify those areas of the City which require special attention to prevent urban blight due to lack of infrastructure, maintenance, or substandard structures, and implement programs to improve these areas.

■ 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/service systems if it would do any of the following:

- 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, which will reduced the amount of wastewater going to the VVWRA wastewater treatment facilities but will not change the treatment process at those facilities. Additionally, measure Wastewater-3 of the Regional Reduction Plan establishes a goal for recycled water consumption in the City, which would potentially increase demands on wastewater treatment services within the City. However, increasing recycled water demand must comply with the City's Wastewater Master Plan and Recycled Water Master Plan. These Master Plans aid in the planning of the City's wastewater and recycled water infrastructure and operations. In addition, the quality is overseen by the Lahontan Regional Water Quality Control Board (RWQCB), Mojave Water Agency (MWA), 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. Also, MWA monitors water levels and performs water quality testing on an annual basis. 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. The wastewater treated in VVWRA's regional plants is required to meet the standards of water quality set by CCR Title 22. Therefore, there would be *no impact*. No further analysis is required.

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. These measures would reduce the amount of water that is delivered to treatment facilities. Additionally, measure Wastewater-3 of the Regional Reduction Plan establishes a goal for recycled water consumption in the City which would potentially increase demands for treatment services. The City's General Plan Goal CN-2 calls for establishing building and development standards that maximize the reclamation of water resources, and it encourages the use of reclaimed water for irrigation and other nonpotable uses. General Plan Policy CN-2.6 requires coordination with VVWRA and City policies. Also, the City's UWMP, Recycled Water Master Plan, and Wastewater Master Plan account for the future growth in the City and the potential increase in the demand for recycled water through the year 2035. These plans implement a recycled water program and identify requirements for collection system and treatment plant expansions within HWD's service area. VVWRA has also adopted policies for serving the growth in Hesperia. VVWRA is planning to construct subregional wastewater treatment plants in the City, which will recycle water for local irrigation use (City of Hesperia 2011). Compliance with the City's Wastewater and

Recycled Water Master Plans and the General Plan policies would ensure that future expansions of treatment facilities would not cause significant impacts on the environment. 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 facilitate development in areas which are already developed with impervious surfaces. The Proposed Project would not substantially change the drainage patterns on any site within the City. The impact 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 increased use of recycled water and other 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 to water supply 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. However, measure Wastewater-3 of the Regional Reduction Plan establishes a goal for recycled water consumption in the City which would potentially increase demands for treatment services. As mentioned above, the City has planned for increase for increased recycled water use through its General Plan policies as well as implementation of the Wastewater and Recycled Water Master Plans. Additionally, VVWRA has also adopted policies for serving the growth in Hesperia. VVWRA is planning to construct subregional wastewater treatment plants in the City, which will recycle water for local irrigation use (City of Hesperia 2011). Therefore, implementation of the Regional Reduction Plan would not require VVWRA to provide additional services than the existing and planned commitments. Consequently, 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

California Regional Water Quality Control Board Lahontan Region. 2010. *Water Quality Control Plan for the Lahontan Region*.

Hesperia, City of. 2008a. *Recycled Water Master Plan*, July.

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4.8.18 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 4.8-5 (Summary of Environmental Effects of Implementing Local Reduction Measures in Hesperia), 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 4.8.1 through 4.8.17 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 4.8.4 (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 4.8.5 (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 4.8.3, 4.8.6, 4.8.8, 4.8.9, 4.8.12, 4.8.13, 4.8.14, 4.8.16, and 4.8.17 of this EIR, respectively.

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