TSAN BERNARDINO
ASSOCIATED GOVERNMENTS

SAN BERNARDINO COUNTY REGIONAL GREENHOUSE GAS EMISSIONS INVENTORIES AND REDUCTION PLAN

Environmental Impact Report

SCH No. 2012111046

Volume XXII: Draft EIR (Section 4.21 [Town of Yucca Valley])

Prepared for

Governments
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Working Together

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4.21 TOWN OF YUCCA VALLEY

4.21.0 Introduction to the Analysis

This section of the EIR analyzes the potential environmental effects in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Yucca Valley is located the desert region east of the San Bernardino Mountains, north of Joshua Tree National Park in southern San Bernardino County (Figure 4.21-1 [Vicinity Map]). This area, known as the Morongo Basin, is part of the Mojave Desert. Yucca Valley is 20 miles west of Twentynine Palms and 35 miles north of Palm Springs. Yucca Valley serves as a commercial and residential center for the Morongo Valley, supporting the major economic drivers in the region, Joshua Tree National Park and the U.S. Marine Corps Facility. Yucca Valley is known for its rural desert and quiet life, natural vistas, and access to natural areas in both the mountains and the desert. The Yucca Valley General Plan Land Use Element allocates nearly 90 percent of the land area to residential land uses.

In 2010, the town's population was 20,700 (20,652 in 2008) and is projected to grow to 22,953 by 2020, an increase of 11 percent over 2008. Employment is also expected to grow by a similar amount.

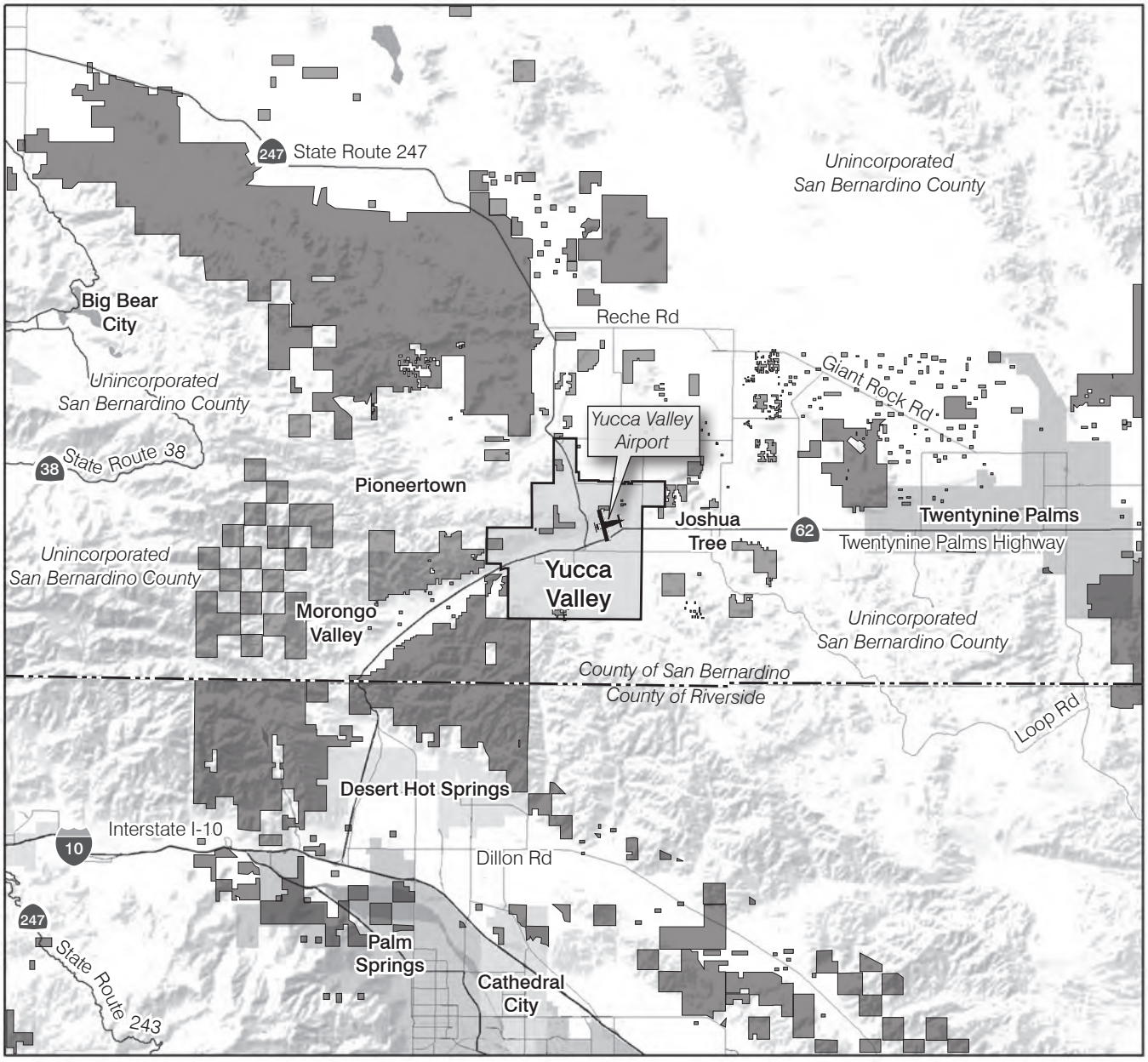
Table 4.21-1 (Socioeconomic Data for Yucca Valley) presents socioeconomic data for Yucca Valley, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.21-1 Socioeconomic Data for Yucca Valley

Category	*2008*	*2020*
Population	20,652	22,953
Housing (du)	8,254	9.856
Single-Family (du)	6,516	7,780
Multifamily (du)	1,738	2.076
Employment (jobs)	4,575	5,071
Agricultural (jobs)	9	26
Industrial (jobs)	640	865
Retail Commercial (jobs)	1,385	1,427
Non-Retail Commercial (jobs)	2,541	2,753

du = dwelling unit

Two documents are used in reviewing the potential environmental impacts and mitigation within the Town of Yucca Valley from implementation of the Regional Reduction Plan. The first document is the Town of Yucca Valley Comprehensive General Plan, which is the planning document for the town 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



Yucca Valley Town Boundary

County Boundary

Bureau of Land Management (BLM)

0 8

NORTH
SCALE IN MILES

Source: Town of Yucca Valley, 2012.

Figure 4.21-1
Vicinity Map

ATKINS

mitigation measures. The second document is the Regional Reduction Plan Town of Yucca Valley chapter that describes the reduction measures and reduction targets chosen by Yucca Valley. This document is the proposed project as it pertains to the Town of Yucca Valley.

Town of Yucca Valley General Plan

The Yucca Valley General Plan consists of four main chapters (Community Development, Environmental Resources, Environmental Hazards, and Public Services and Facilities) that include the seven general plan elements required by California planning law and several discretionary elements. The Community Development chapter includes the following elements: Land Use, Circulation, Housing, Parks, Recreation and Trails, Community Design, Scenic Highways, and Economic Development. The Environmental Resources chapter consists of the following elements: Biological Resources, Archaeological and Historic Resources, Water Resources, Air Quality, and Open Space, Mineral, Energy, and Conservation. The Environmental Hazards chapter consists of the following elements: Seismic Safety, Slopes, Sediment Control and Soil Conservation, Flooding and Hydrology, Noise, and Hazardous and Toxic Materials. The Public Services and Facilities chapter consists of the following elements: Fire and Police Protection, Schools and Libraries, Emergency Preparedness and Health Services, Public Buildings, Facilities and Utilities, and Arts, Culture and Humanities.

The Yucca Valley General Plan policies that are relevant to the Regional Reduction Plan implementation are listed in Table 4.21-2 (Yucca Valley General Plan Policies).

Table 4.21-2 Yucca Valley General Plan Policies

Policy No.	*Policies*
	LAND USE ELEMENT
General Land Use	
5	Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office, and residential uses.
6	Encourage in-fill development on subdivided lands located adjacent to existing residential areas and utilities to maximize the efficient utilization of land and infrastructure.
Residential	
1	Areas of existing residential development and surrounding vacant lands shall be planned in a manner which preserves the desert rural neighborhood character and assures a consistent and compatible land use pattern.
Commercial	
2	Development standards for commercial land uses shall include setbacks, pad elevations, mass and height standards, and other design guidelines which enhance the character and attractiveness of the Town's commercial districts.
	CIRCULATION ELEMENT
1	Prepare and maintain a master plan of roads, which sets forth detailed improvement and financing plans, and schedules implementation, which assure levels of roadway and intersection operations at LOS "D" or better during typical peak hours.
2	Coordinate and cooperate with Caltrans to assure preservation of capacity and maximized efficiency along State Highways 62 and 247.
3	Improve capacity on, and create new alternative east/west arterials and smaller capacity routes to enhance intra-town circulation and relieve congestion on Highway 62.

Table 4.21-2 Yucca Valley General Plan Policies

Policy No.	*Policies*
4	Participate and represent the Town's interests in circulation-related regional planning activities, and encourage acceptance of Town policies regarding regional transportation issues.
5	Encourage expansion of ridership and the mass transit system operated by the Morongo Basin Transit Authority with the Town and greater Morongo Basin.
6	As a means of reducing traffic with work-related out-mitigation, make every reasonable effort to achieve a jobs/housing balance in the community.
7	Promote the use of multi-occupant modes of transportation and the shifting of employment-related trips out of current peak traffic periods.
8	Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.
	HOUSING ELEMENT
1	Ensure that the quality of existing and future dwelling units in neighborhoods within the Town of Yucca Valley is preserved and maintained.
2	Provide residential lands that are adequate to meet the housing objectives for the Town.
6	Ensure that new housing projects are designed in an energy efficient manner.
7	Residential development in the Town of Yucca Valley will preserve and protect as much as possible, the desert flora and fauna.
11	Encourage the preservation of home town and rural atmosphere through design standards.
12	High density, affordable and senior projects shall be located with convenient access to shopping, public transit, and school and park facilities.
	PARKS, RECREATION AND TRAILS ELEMENT
Parks	
8	Encourage the addition of parks in areas relatively isolated from existing community and neighborhood park facilities.
Trails	
1	Incorporate a multi-user trail system into the Parks and Trails Master plan, which will link many parklands and open space destinations.
4	Plan, coordinate and cooperate with local utility purveyors, County Flood Control Districts and other appropriate parties to include the development of a multi-use trail system within easements and rights-of-way to the greatest extent possible.
5	Review new residential developments for their potential to incorporate appropriate pedestrian, equestrian, and bicycle trail connections to the Town-wide recreational system.
	COMMUNITY DESIGN ELEMENT
1	Strive to achieve and maintain community design standards consistent with its character as a low density, rural residential community that also provides regional commercial and professional services.
2	Establish and maintain appropriate community standards setting architectural and design parameters for future development, which protect the community's scenic viewsheds, provide community cohesion, and enhance the image of Yucca Valley as a quality rural community.
6	Require the use of Specific Plans to implement the "Mixed Use" land use designation, which may include an integrated mix of commercial, residential, institutional, and professional office uses.
7	Areas of special interest, including entry points, scenic highway viewsheds, landmarks and focal points, shall receive appropriate treatment whether part of a public or private development proposal.

Table 4.21-2 Yucca Valley General Plan Policies

Policy No.	*Policies*
12	Take every reasonable measure to preserve the value of the community's night sky, establishing maximum lighting levels and permitting fixtures appropriate for the need, use, security, safety and aesthetics.
	SCENIC HIGHWAYS ELEMENT
2	Within fiscal and practical limits, enforce the minimum requirements for state scenic highways and land use/design guidelines for Town designated scenic roadways.
6	All grading and development proposed within scenic highway viewsheds shall be regulated to minimize adverse impacts to these viewsheds.
	BIOLOGICAL RESOURCES ELEMENT
2	Support all practical efforts to maintain a broad variety of habitats, including suitable habitat for rare and endangered species occurring in the Town and vicinity.
3	All development proposals on vacant lands shall be reviewed and evaluated to assure minimal impacts on existing habitat and wildlife.
4	Assure that sensitive habitat and wildlife areas, as well as national park and wilderness lands, are appropriately buffered from urban development.
5	Until such time as the Western Mojave Coordinated Management Plan is adopted, the Town shall continue to require Desert Tortoise surveys and, as appropriate, habitat Conservation Plans and will consult, confer and cooperate with the Bureau of Land management, U.S. Fish and Wildlife Service and other appropriate agencies on the West Mojave Plan.
6	To the greatest extent practical, the Town shall require developers to salvage native Joshua trees and shrubs for incorporation into project landscaping or transplant trees to other sites.
7	Encourage and cooperate in the establishment of multiple use corridors that use drainage channels and utility easements to provide wildlife corridors and public interconnection between open space areas in the community and vicinity.
8	Developers and others required to submit landscape plans to the Town for approval shall be required to use native and approved, non-native, drought tolerant plant species which provide or enhance wildlife habitats and serve to extend the local desert environment into the urban design of the Town.
	ARCHAEOLOGICAL AND HISTORIC RESOURCES ELEMENT
2	Exercise its responsibility to locate, identify, and evaluate archaeological, historical and cultural sites, and shall assure that appropriate action is taken to protect these resources.
	WATER RESOURCES ELEMENT
1	Require the use of low water consuming, drought resistant landscape planting as a means of reducing water demand, and shall coordinate with the Hi-Desert Water District to establish a strong education/public relations program to inform residents of a wide range of water saving techniques.
2	Confer and coordinate with the County Transportation/Flood Control District to enhance groundwater recharge concurrent with flood plain management.
4	Regulate land use and development, and confer and cooperate with the Hi-Desert Water District and County Transportation/Flood Control to facilitate recharging the Warren Valley Groundwater Basin.
6	Ensure the Hi-Desert Water District implements and develops a wastewater collection and treatment system, which will provide for long-range water quality protection and will provide for increased reclaimed water for groundwater recharge.
	AIR QUALITY ELEMENT
1	Participate in the monitoring of all air pollutants and regional concentrations on a continuous basis, and shall maintain records of trends in regional air quality.
2	Coordinate air quality planning efforts with other local, regional, and federal agencies.
3	Town land use planning shall include efforts to separate sensitive land uses from sources of air pollution.

Table 4.21-2 Yucca Valley General Plan Policies

Policy No.	*Policies*
4	Pursue programs which reduce emission by creating a land use pattern which can be efficiently served by a diversified transportation system and which minimizes vehicle miles traveled.
5	Promote the safe and efficient movement of people and materials into and through the Town as a means of reducing the impact of automobiles on local air quality.
6	All development proposals brought before the Town will be reviewed for potential adverse effects on air quality and will be required to mitigate any significant impacts.
	OPEN SPACE, MINERAL, ENERGY AND CONSERVATION ELEMENT
Open Space and Conservation	
3	With the approval of the local utilities and service providers and County Transportation/Flood Control Department, shall maximize the use of flood control and utility easement areas to develop a multi-use trail system providing alternative transportation links to parks and open space areas.
4	Develop and implement guidelines and regulations that assure provision of appropriate buffers between urban and open space/conservation areas.
Mineral Resources	
2	Regulate and monitor the extraction and use of all minerals, sand and gravel within the General Plan Study Area and vicinity.
3	Protect valuable mineral resource areas from potential development that might preclude future extraction of the mineral resources.
Energy Resources	
1	Develop and implement long-term conservation policies and standards.
2	Support efforts to develop alternative energy technologies which have minimum adverse impacts on the environment.
3	Promote energy conservation in public buildings and vehicles, to include a program of incentives to encourage the use of innovative methods of conserving energy.
4	Provide for the protection and access to existing energy resources, and the development and utilization of these resources.
5	Promote the use of alternative energy sources through the informing of Town residents and available alternative energy programs and rebates.
6	Promote the use of ride-sharing and mass transit as a means of reducing transportation related energy demand.
	SEISMIC SAFETY ELEMENT
2	In accordance with State law, development proposals within designated Alquist-Priolo Earthquake Fault Zones shall be accompanied by appropriate geological analysis.
8	Development in areas identified as being subject to a rockfall or landslide hazard shall be avoided.
	SLOPES, SEDIMENT CONTROL AND SOIL CONSERVATION ELEMENT
2	Development proposals within areas identified by the Town as having steep slopes and/or subject to rockfalls, landslides or excessive erosion shall be accompanied by appropriate geotechnical analysis.
5	In order to control soil disturbance and erosion, grading associated with all development plans shall be kept to the minimum necessary to provide for planned improvements, while maintaining maximum natural and undisturbed vegetation.
	FLOODING AND HYDROLOGY ELEMENT
2	Provide for the implementation of drainage controls and improvements that enhance local conditions and are consistent with and complement the Master Drainage Plan.

Table 4.21-2 Yucca Valley General Plan Policies

Policy No.	*Policies*
	NOISE ELEMENT
3	Project designs will be required to include measures which assure that interior noise levels for residential development not to exceed 45 CNEL as required by Title 25 (Noise Insulation Standards).
5	Develop and maintain a circulation plan that is consistent with the residential character of the Town, avoids impacts to existing and planned sensitive receptors/uses, and which provides fixed routes for existing and future truck traffic.
	HAZARDOUS AND TOXIC MATERIALS ELEMENT
3	Require that disposal of all hazardous and/or toxic wastes is in compliance with existing federal, state, and county regulations.
	FIRE AND POLICE PROTECTION ELEMENT
3	Coordinate with the San Bernardino County Fire Department to enforce fire standards and regulations in the course of reviewing project design and building plans, and coordinating building inspections.
6	The Police and Fire Departments, in their review of new development proposals, will be encouraged to evaluate development plans and comment on their ability to provide proper protection. This will include, but is not limited to internal circulation systems, project directories, street names and numbering systems.
	PUBLIC BUILDINGS, FACILITIES, AND UTILITIES ELEMENT
Public Buildings and Facilities	
1	Coordinate with public utilities and special districts to assure the least intrusive and most compatible integration of related buildings and facilities into the land use pattern of the community.
Public Utilities	
3	Confer and cooperate with the Hi-Desert Water District to assure an adequate water system for existing and future development and maintain an adequate reserve of water in storage facilities.
6	Implement AB 939 through the Source Reduction and Recycling Element (SRRE) and make every effort to reduce 25% of its solid waste by 1995, and 50% by year 2000.
8	Confer and coordinate with the Southern California Edison and Southern California Gas companies of the future provision of vehicle recharge and compressed natural gas (CNG) stations, respectively, in the Town.

SOURCE: Town of Yucca Valley, *Town of Yucca Valley Comprehensive General Plan* (1995).

The Town of Yucca Valley Chapter of the San Chapter of the San Bernardino County Regional GHG Reduction Plan

The Town of Yucca Valley has selected a goal to reduce its community GHG emissions to a level that is 15 percent below its projected level of GHG emissions in 2020. The Town will meet and exceed this goal through a combination of state (~93 percent) and local (~7 percent) efforts. The Town actually exceeds the goal with only state/county level actions (108 percent of goal), but has committed to several additional local measures. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Yucca Valley's on-road, solid waste and building energy sectors in 2020. An additional reduction of 3,024 metric tons (MT) of carbon dioxide equivalents (CO_2e) will be achieved primarily through the following local measures, in order of importance: GHG Performance Standard for New Development (PS-1); Implement SBX 7-7 (Water-4); and Solar

Installations for Existing Housing (Energy-7). Yucca Valley's Plan has the greatest impacts on GHG emissions in the solid waste management, on-road transportation, and building energy sectors.

Although the Town is implementing sustainable development practices in both current projects as well as in policies in the Town's General Plan Update project, the SCS implemented in the Morongo Basin (Transportation-1) will not result in any measureable GHG reductions for the Town itself.

Figure 4.21-2 (Emissions Reduction Profile for Yucca Valley) shows Yucca Valley'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., 15 percent) below its projected GHG emissions level 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 (~93 percent) of the total reductions needed to achieve the 2020 target.

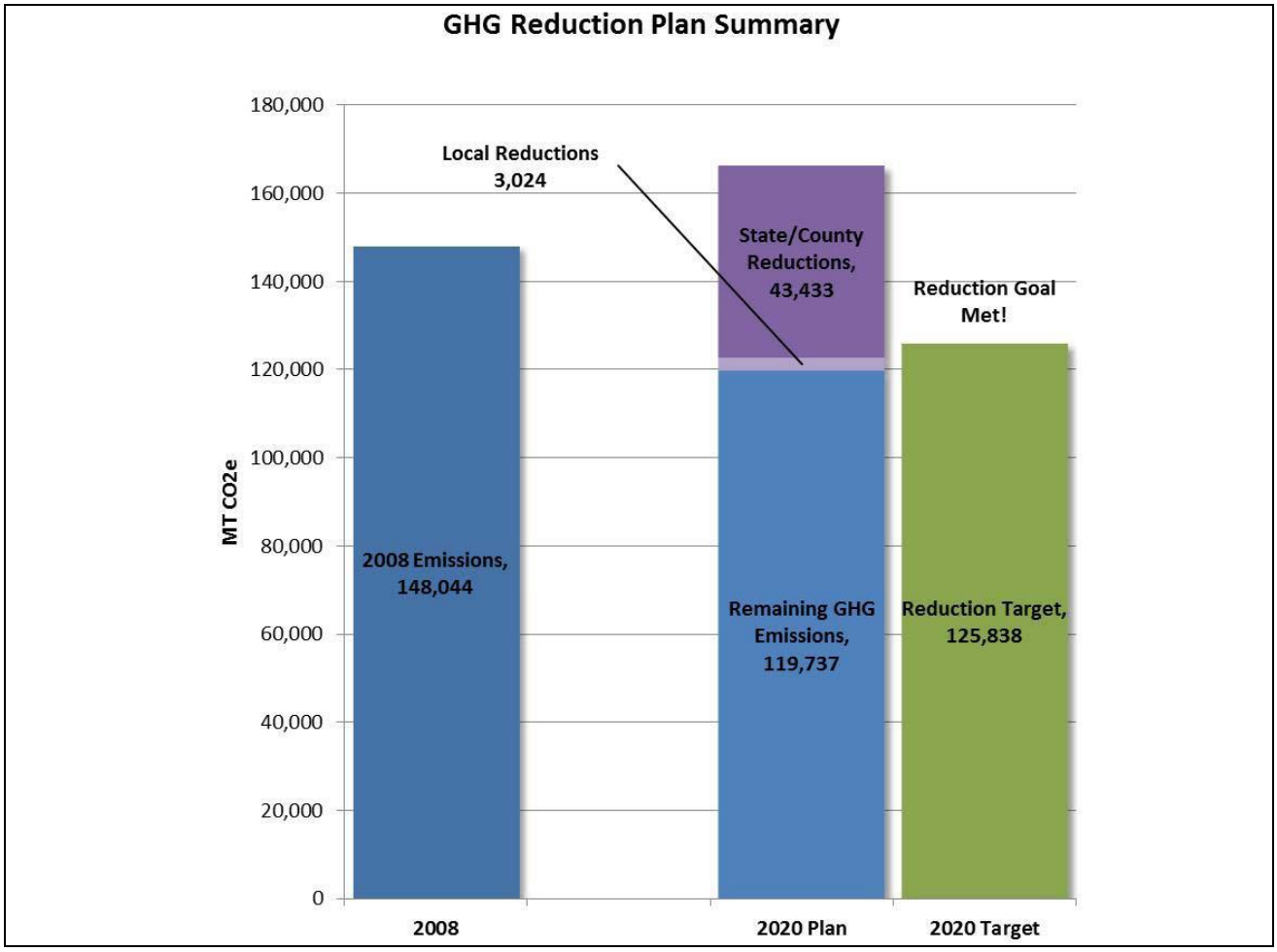


Figure 4.21-2 Emissions Reduction Profile for Yucca Valley

Figure 4.21-3 (Emissions by Sector for Yucca Valley) 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 equipment emissions sectors.

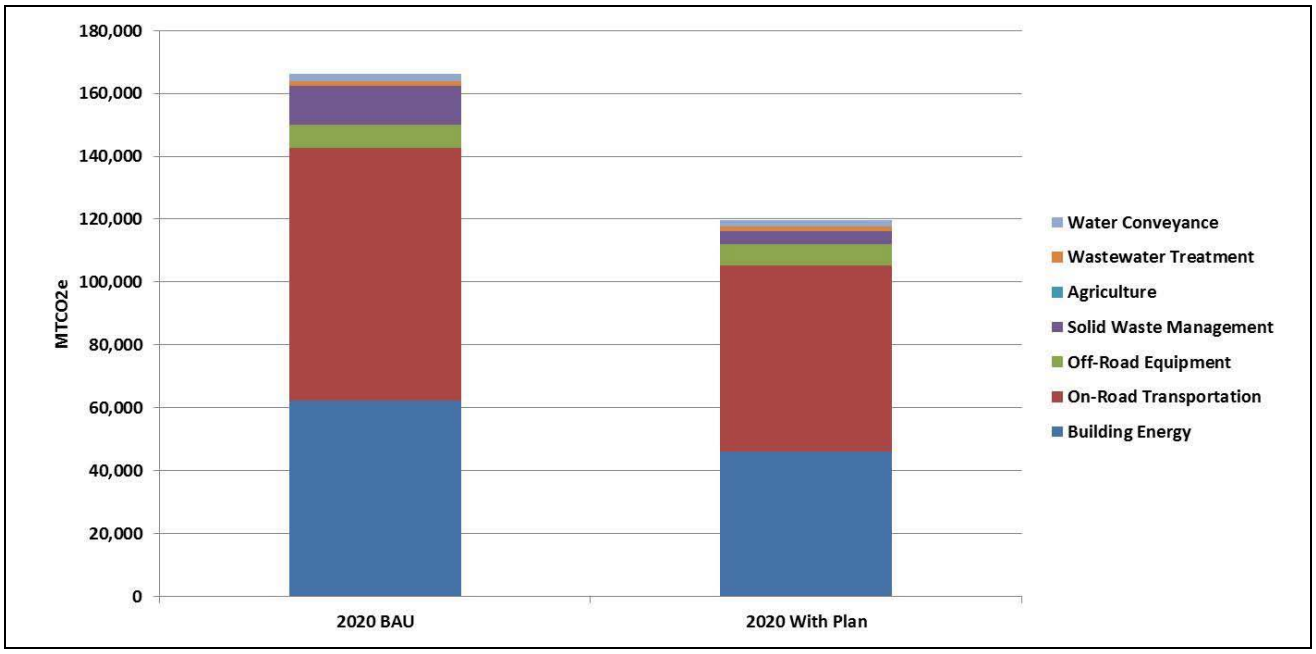


Figure 4.21-3 Emissions by Sector for Yucca Valley

Table 4.21-3 (Emission Reduction by Sector for Yucca Valley) 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 Yucca Valley exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the solid waste management, on-road transportation, and building energy sectors.

Figure 4.21-4 (Emission Reductions by Control and by Sector for Yucca Valley) 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 the GHG Performance Standard for New Development (PS-1).

Table 4.21-4 (GHG Reduction Measures and Estimated 2020 Reductions for Yucca Valley) presents the reduction measures selected by Yucca Valley. 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 Town of Yucca Valley.

Table 4.21-3 Emission Reduction by Sector for Yucca Valley

Sector	*2008*	*2020 BAU*	*Reductions*	*2020 Emissions with Plan*	*% Reduction*
Building Energy	53,347	62,236	14,451	47,785	23.2%
On-Road Transportation	71,120	80,427	21,272	59,155	26.4%
Off-Road Equipment	6,680	7,419	663	6,757	8.9%
Solid Waste Management	10,992	12,359	8,172	4,187	66.1%
Agriculture	0	0	0	0	0.0%
Wastewater Treatment	4,138	1,522	18	1,504	1.2%
Water Conveyance	1,677	2,231	30	2,201	1.3%
GHG Performance Standard*	—	—	1,852	—	—
Total Emissions	***148,044***	***166,194***	***46,457***	***119,737***	***28.0%***
Reduction Goal	—	—	**40,357**	**125,838**	**24.3%**
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	—	—	***6,100***	—	—
Per-Capita Emissions	7.2	7.2	—	5.2	—
Per-Job Emissions	32.4	32.8	—	23.6	—
Excluded Stationary Source Emissions	16,719	29,491	—	—	—

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 Town's reduction goal by promoting reductions in multiple sectors.

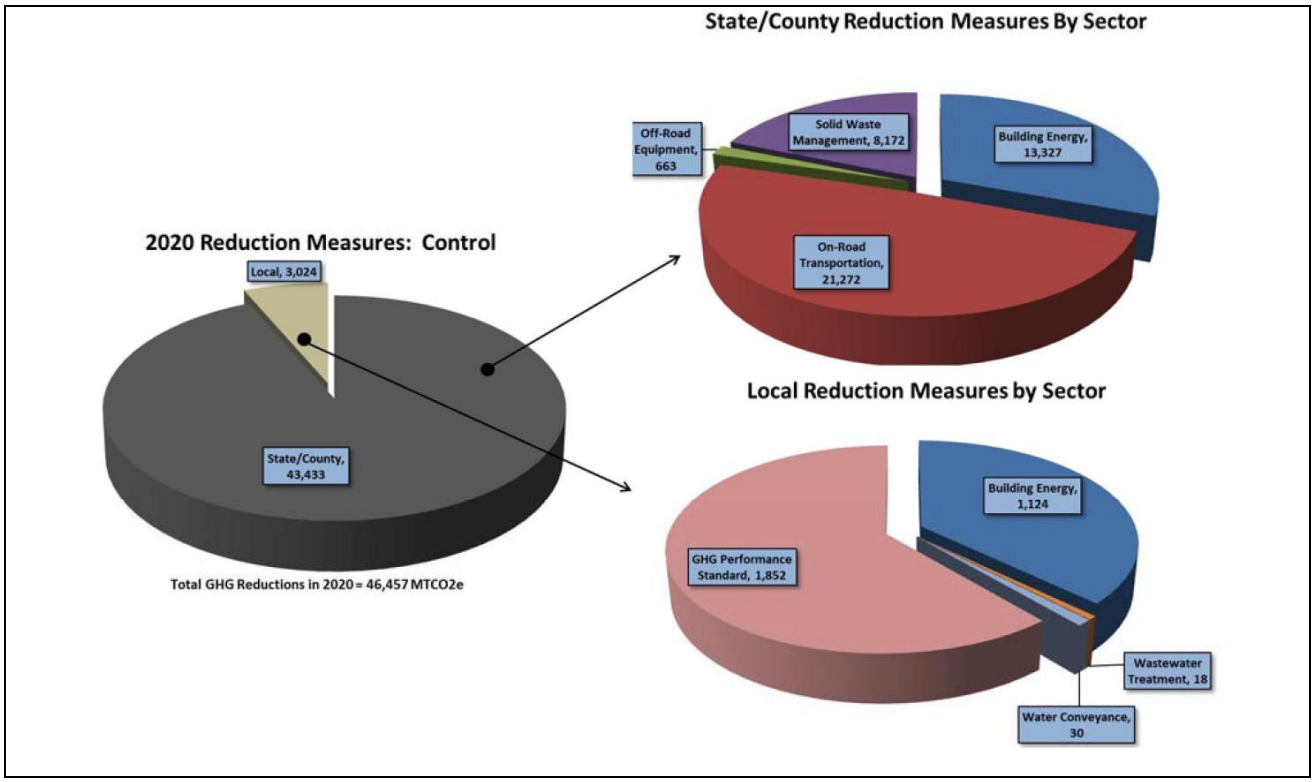


Figure 4.21-4 Emission Reductions by Control and by Sector for Yucca Valley

Table 4.21-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Yucca Valley

Reduction Measure Number	*Description*	*Emissions Reductions*
	STATE AND COUNTY MEASURES	
State-1	Renewable Portfolio Standard	8,804
State-2	Title 24	1,815
State-3	AB 1190	2,506
State-4	Solar Water Heating	82
State-5	Industrial Boiler Efficiency	120
State-6	Pavley and Low Carbon Fuel Standard	19,490
State-7	AB 32 Transportation Reduction Strategies	1,781
State-8	Low Carbon Fuel Standard-Off-road	663
State-9	AB 32 Methane Capture	0
County-1	County GHG Reduction Plan Landfill Controls	8,172
	LOCAL MEASURES	
Building Energy		
Energy-1	Energy Efficiency of Existing Buildings	197
Energy-5	Solar Installation for New Commercial	21
Energy-7	Solar Installation for Existing Housing	336
Water-4 (BE)	*Implement SBX 7-7*	*570*
Wastewater Treatment		
Water-4 (WT)	*Implement SBX 7-7*	*18*
Water Conveyance		
Water-4	Implement SBX 7-7	30
GHG Performance Standard for New Development		
PS-1	GHG Performance Standard for New Development (30% below Projected BAU emissions for projects)	1,852
	Total Reductions	***46,457***

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-4 reduces the amount of water consumed in the town, 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).

Summary of Environmental Impacts and Mitigation Measures

The Regional Reduction Plan Town of Yucca Valley chapter describes the proposed project including the reduction measures and reduction targets chosen by the Town of Yucca Valley. 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 Town of Yucca Valley. No comment letters specific to the Town of Yucca Valley were received in response to the notice of preparation (NOP) circulated for the proposed project.

Table 4.21-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley) 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)

MM4.21.1-1 *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 Town of Yucca Valley, 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 4.21-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*				
	Energy-1	*Energy-5*	*Energy-7*	*Water-4*	*PS-1*
Aesthetics					
Scenic vistas	LS	LS/PR	LS/PR	NI	NI
Scenic highways	NI	LS/PR	LS/PR	NI	NI
Visual character or quality	LS	LS/PR	LS/PR	NI	NI
Light and glare	LS	LS/PR	LS/PR	NI	NI
Cumulative impacts	LS	LS/PR	LS/PR	NI	NI
Agriculture/Forestry Resources					
Convert farmland to nonagricultural use	NI	NI	NI	NI	NI
Conflict with existing agricultural zoning or Williamson Act	NI	NI	NI	NI	NI
Conflict with existing forest land or timberland zoning	NI	NI	NI	NI	NI
Loss or conversion of forest land to nonforest land	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
Cumulative impacts	NI	NI	NI	NI	NI
Air Quality					
Conflict or obstruct air quality management plan	LS	LS	LS	LS	LS
Violation of air quality standard	NI	LS	LS	NI	LS
Exposure of sensitive receptors	NI	LS	LS	NI	NI
Creation of objectionable odors	NI	LS	LS	NI	NI
Cumulatively considerable net increase of any nonattainment criteria pollutant	LS	LS	LS	LS	LS
Biological Resources					
Special-status species	NI	LS/PR	LS/PR	NI	NI
Riparian habitat or other sensitive natural community	NI	LS/PR	LS/PR	NI	NI
Protected wetlands	NI	LS/PR	LS/PR	NI	NI
Wildlife movement	NI	LS/PR	LS/PR	NI	NI
Conflict with any local policies or ordinances protecting biological resources	NI	LS/PR	LS/PR	NI	NI
Conflict with habitat conservation plan	NI	NI	NI	NI	NI
Cumulative impacts	NI	LS/PR	LS/PR	NI	NI

Table 4.21-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*				
	Energy-1	*Energy-5*	*Energy-7*	*Water-4*	*PS-1*
Cultural Resources					
Substantial adverse change in significance of a historical resource	**LS/MM**	**LS/MM**	**LS/MM**	NI	NI
Substantial adverse change in significance of a archaeological resource	NI	LS/PR	LS/PR	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	NI	LS/PR	LS/PR	NI	NI
Disturb any human remains	NI	LS/PR	LS/PR	NI	NI
Cumulative impacts	LS/MM	LS//MM	LS/MM	NI	NI
Geology/Soils					
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	LS/PR	LS/PR	NI	NI
Substantial soil erosion or loss of topsoil	NI	LS/PR	LS/PR	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	LS/PR	LS/PR	NI	NI
Located on expansive soil	NI	LS/PR	LS/PR	NI	NI
Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	NI	NI	NI	NI	NI
Cumulative impacts	NI	LS/PR	LS/PR	NI	NI
Greenhouse Gas Emissions/Global Climate Change					
Generate greenhouse gas emissions	LS	LS	LS	LS	LS
Conflict with an applicable plan, policy, or regulation to reduce greenhouse gas emissions	LS	LS	LS	LS	LS
Hazards/Hazardous Materials					
Create significant hazard through the routine transport, use, or disposal of hazardous materials	LS/PR	LS/PR	LS/PR	NI	NI
Create significant hazard through release of hazardous materials	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
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI	NI
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	NI	LS/PR	LS/PR	NI	NI
Risk of loss, injury, or death involving wildland fires	NI	NI	NI	NI	NI
Cumulative impacts	LS/PR	LS/PR	LS/PR	NI	NI

Table 4.21-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*				
	Energy-1	*Energy-5*	*Energy-7*	*Water-4*	*PS-1*
Hydrology/Water Quality					
Violate any water quality standards or waste discharge requirements	NI	LS/PR	LS/PR	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	NI	NI	NI	NI	NI
Alter the existing drainage pattern of the site or area, resulting in substantial erosion or siltation	NI	LS/PR	LS/PR	NI	NI
Alter the existing drainage pattern of the site or area, resulting in on- or off-site flooding	NI	LS/PR	LS/PR	NI	NI
Exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff	NI	LS	LS	NI	NI
Otherwise degrade water quality	NI	NI	NI	NI	NI
Place housing within a 100-year flood hazard area	NI	NI	NI	NI	NI
Place within a 100-year flood hazard area structures that would impede or redirect flood flows	NI	LS/PR	LS/PR	NI	NI
Risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam	NI	LS	LS	NI	NI
Inundation by seiche, tsunami, or mudflow	NI	LS	LS	NI	NI
Cumulative impacts	NI	LS/PR	LS/PR	NI	NI
Land Use/Planning					
Physically divide an established community	NI	NI	NI	NI	NI
Conflict with any applicable land use plan, policy, or regulation	LS	LS	LS	LS	LS
Conflict with any applicable habitat conservation plan or natural community conservation plan	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	LS	LS	LS
Mineral Resources					
Loss of availability of a known mineral resource	NI	NI	NI	NI	NI
Loss of availability of a locally important mineral resource recovery site	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI
Noise					
Noise levels in excess of standards established in the local general plan or noise ordinance	LS/PR	LS/PR	LS/PR	NI	NI
Excessive groundborne vibration or groundborne noise levels	NI	NI	NI	NI	NI
Permanent increase in ambient noise levels	NI	NI	NI	NI	NI
Temporary or periodic increase in ambient noise levels	LS/PR	LS/PR	LS/PR	NI	NI
Excessive noise levels within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI
Excessive noise levels within the vicinity of a private airstrip	NI	NI	NI	NI	NI

Table 4.21-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*				
	Energy-1	*Energy-5*	*Energy-7*	*Water-4*	*PS-1*
Cumulative impacts	LS/PR	LS/PR	LS/PR	NI	NI
Population/Housing					
Induce substantial population growth	NI	NI	NI	NI	NI
Displace substantial numbers of existing housing	NI	NI	NI	NI	NI
Displace substantial numbers of people	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI
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
Cumulative impacts	NI	NI	NI	NI	NI
Recreation					
Physical deterioration of recreational facilities	NI	NI	NI	NI	NI
Construction or expansion of recreational facilities	NI	NI	NI	NI	NI
Cumulative impacts	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	LS
Conflict with an applicable congestion management program	NI	NI	NI	NI	LS
Change in air traffic patterns that results in substantial safety risks	NI	NI	NI	NI	NI
Increase hazards due to a design feature or incompatible uses	NI	NI	NI	NI	NI
Inadequate emergency access	NI	LS/PR	LS/PR	NI	NI
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	NI	NI	NI	NI	LS
Cumulative impacts	NI	LS/PR	LS/PR	NI	LS
Utilities/Service Systems					
Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	NI	NI	NI	NI	NI
Construction or expansion of new or existing water or wastewater treatment facilities	NI	NI	NI	LS	NI
Construction or expansion of new or existing stormwater drainage facilities	NI	NI	NI	NI	NI
Insufficient water supplies from existing entitlements and resources, or need new or expanded entitlements	NI	NI	NI	LS	NI
Inadequate wastewater treatment capacity	NI	NI	NI	NI	NI

Table 4.21-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Yucca Valley

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*				
	Energy-1	*Energy-5*	*Energy-7*	*Water-4*	*PS-1*
Insufficient permitted solid waste disposal capacity	NI	NI	NI	NI	NI
Noncompliance with federal, state, or local statutes and regulations related to solid waste	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	LS	NI

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4.21.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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

The Town of Yucca Valley is situated in a geographically diverse area known as the Morongo Basin, between the Little San Bernardino Mountains and the Sawtooth Mountains. These two ranges provide a contrast of snow-capped mountain scenery to the vast expanses of desert landscape in the Basin. These contrasting scenes serve as the backdrop to the Town's overall scenic beauty.

The terrain in Yucca Valley is generally characterized by the low-lying plains of the valley floor at 3,000 feet above sea level, gradually leading to small hills, and framed by steep hillsides up to 4,000 feet above sea level to the north and south. This undulation provides spectacular views of the valley floor and dramatic desert landscapes, making the hillsides an asset to the community.

Yucca Valley is known for its rural desert and quiet life, natural vistas, and access to natural areas in both the mountains and the desert. The rural urban landscape is dominated by single-family residential development that is broadly dispersed throughout the community.

Visual Resources

The Town of Yucca Valley's scenic resources are a valued local asset. The natural setting of the town is characterized by the ridges and hillsides north, west and south of the Town and the desert valley lands to the east. The desert environment, natural resources, and active open space opportunities are a core aspect of Yucca Valley's character and serve as a significant attraction for visitors seeking recreation. Views from the Town serve to situate the community in its local environment and landscape, and comprise an important element of the Town's quality of life.

Many of the scenic resources that are valued by Yucca Valley residents and visitors are located outside the Town limits and beyond the Planning Area boundary. Such areas include the views of the Little San Bernardino Mountains of the Peninsular Ranges and the San Bernardino Mountains on the easternmost of the Transverse ranges surrounding the Town and Yucca Valley's hillside areas.

Yucca Valley benefits from its proximity to land uses that emit little or no light pollution. The limited lighting in the Morongo Basin and surrounding region preserves the natural night environment and allows for views of astronomical features.

Scenic Highways/Corridors

Highways 62 and 247 have been designated as Eligible State Scenic Highways—Not Officially Designated. Highway 62 is a well-traveled route to and from Arizona and Nevada that provides two major entry points into the community. Within the Town limits, this highway also has several important focal points, including the Highway 247 intersection, Sage, and Balsa. Highway 247 provides important scenic viewsheds, including those for travelers entering the Town from the Lucerne Valley, Victorville, and Barstow areas to the north. It is also a major entry point into the community. Besides the views afforded by these roadways, both geology and the natural desert landscape contribute to the aesthetic characteristics of these scenic corridors as well.

The Town of Yucca Valley has designated Highways 62 and 247, Joshua Lane, and Pioneertown Road as Scenic Roadways in the Yucca Valley General Plan.

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. As noted above, State Highways 62 and 247 are Eligible State Scenic Highways—Not Officially Designated.

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

Town of Yucca Valley Town Code

The Town of Yucca Valley has prepared a Development Code (Title 9), but as of February 2013, it has not been adopted. The Development Code establishes development standards for zoning districts, general development standards, and permitting requirements for various types of land uses.

Town of Yucca Valley General Plan

The General Plan policies that are applicable to aesthetics[1] are:

Land Use Element, Commercial

Policy 2 Development standards for commercial land uses shall include setbacks, pad elevations, mass and height standards, and other design guidelines which enhance the character and attractiveness of the Town's commercial districts.

Housing Element

Policy 11 Encourage the preservation of home town and rural atmosphere through design standards.

Community Design Element

Policy 1 Strive to achieve and maintain community design standards consistent with its character as a low density, rural residential community that also provides regional commercial and professional services.

Policy 2 Establish and maintain appropriate community standards setting architectural and design parameters for future development, which protect the community's scenic viewsheds, provide community cohesion, and enhance the image of Yucca Valley as a quality rural community.

Policy 7 Areas of special interest, including entry points, scenic highway viewsheds, landmarks and focal points, shall receive appropriate treatment whether part of a public or private development proposal.

[1] This is 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 12 Take every reasonable measure to preserve the value of the community's night sky, establishing maximum lighting levels and permitting fixtures appropriate for the need, use, security, safety and aesthetics.

Scenic Highways Element

Policy 2 Within fiscal and practical limits, enforce the minimum requirements for state scenic highways and land use/design guidelines for Town designated scenic roadways.

Policy 8 All grading and development proposed within scenic highway viewsheds shall be regulated to minimize adverse impacts to these viewsheds.

Biological Resources Element

Policy 4 Assure that sensitive habitat and wildlife areas, as well as national park and wilderness lands, are appropriately buffered from urban development.

Policy 6 To the greatest extent practical, the Town shall require developers to salvage native Joshua trees and shrubs for incorporation into project landscaping or transplant trees to other sites.

Policy 8 Developers and others required to submit landscape plans to the Town for approval shall be required to use native and approved, non-native, drought tolerant plant species which provide or enhance wildlife habitats and serve to extend the local desert environment into the urban design of the Town.

Town of Yucca Valley Commercial Design Guidelines

The Town approved commercial design guidelines in 2001 (Resolution No. 01-09). The guidelines intended as a reference framework to assist developers and project designers in understanding the Town's goals and objective for high quality development within the commercial land use districts. It describes the manner in which the design guidelines should be applied to new and existing development. Design elements address such topics are color, height, and mass/scale.

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 Town standards pertaining to community design and visual quality.

Effects Not Found to Be Significant

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

The Town's physical setting in the Morongo Basin region affords scenic views of the San Bernardino Mountains, Little San Bernardino Mountains, Sawtooth Mountains, Mojave Desert (including Joshua Tree National Park to the immediate south), and other undeveloped areas.

Implementation of GHG Performance Standard for New Development (PS-1) could involve the installation of energy-saving features (e.g., indoor energy-efficient appliances, roof-mounted equipment, or small-scale energy-generating facilities for a new individual development project, which would be within the footprint of that development. Similarly, implementation of Energy-1 and Energy-7 would involve roof-mounted solar systems. The height and scale of such features would not affect scenic vistas.

Under Energy-7, solar energy systems for new commercial development could be installed on-site or off-site. Existing and planned commercial land use designations are concentrated along Highway 62, where commercial development is already present. If there are elements of new commercial development that could result in changes that would have the potential to effect scenic vistas, such effects would be minimized through compliance with General Plan Land Use and Community Design Element policies, the Town's commercial design guidelines, the Town's permitting and design review process. Impacts on scenic vistas would be ***less than significant***. No mitigation is required.

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

Highways 62 and 247 have been designated as Eligible State Scenic Highways—Not Officially Designated. The Town of Yucca Valley has designated Highways 62 and 247, Joshua Lane, and Pioneertown Road as Scenic Roadways in the Yucca Valley General Plan. These corridors provide middle to distant views of the surrounding mountains and desert landscape, which are valued scenic resources.

Implementation of GHG Performance Standard for New Development (PS-1) could involve the installation of energy-saving features (e.g., indoor energy-efficient appliances, roof-mounted equipment, or small-scale energy-generating facilities for a new individual development project, which would be within the footprint of that development. Similarly, implementation of Energy-1 and Energy-7 would involve roof-mounted solar systems. The value of the scenic resources would not be reduced or obstructed because such features would be installed on structures and would not include elements that would increase height or mass.

Under Energy-7, solar energy systems for new commercial development could be installed on-site or off-site. Existing and planned commercial land use designations are concentrated along Highway 62, where commercial development is already present. Solar arrays on rooftops would not affect scenic resources. Solar systems that could be constructed off site would not be of such height or mass that they would limit or obstruct views from roadways that provide views of the Town's scenic resources. In addition, implementation of the Town's commercial design guidelines and the Town's permitting and design review process would help minimize potential impacts. Impacts on scenic resources would be ***less than significant***. No mitigation is required.

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

Implementation of GHG Performance Standard for New Development (PS-1) could involve the installation of energy-saving features (e.g., indoor energy-efficient appliances, roof-mounted equipment, or small-scale energy-generating facilities for a new individual development project, which would be within the footprint of that development. Similarly, implementation of Energy-1 and Energy-7 would involve roof-mounted solar systems. The height and scale of such features would not degrade visual quality.

Under Energy-7, solar energy systems for new commercial development could be installed on-site or off-site. Existing and planned commercial land use designations are concentrated along Highway 62, where commercial development is already present. If there are elements of new commercial development that could result in changes that would have the potential to degrade visual quality, such effects would be minimized through compliance with General Plan Land Use and Community Design Element policies, the Town's commercial design guidelines, the Town's permitting and design review process. Impacts on visual quality 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?

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. Solar energy systems installed off-site for commercial development would subject to the Town's design standards and permitting requirements. None of the Regional Reduction Plan measures implemented in Yucca Valley would be a source of nighttime lighting. Impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Past and current development in Yucca Valley has generally altered the viewshed to some extent. Future development in Yucca Valley would allow for development of currently undeveloped parcels and

intensification of other areas, which have the potential to impact scenic vistas or scenic corridors in Yucca Valley. Future development also has the potential to impact the overall visual character of Yucca Valley and its surroundings, and it could introduce new sources of light and glare that could adversely affect day or nighttime views in Yucca Valley. In addition, the communities that surround Yucca Valley could be affected by light and glare generated by future development.

Implementation of the Regional Reduction Plan in Yucca Valley would not result in a cumulatively considerable contribution to aesthetics impacts because the measures would not result in land use changes or construct features of a mass, height, or scale that would obstruct views, diminish visual quality of a site, or cause light or glare effects. The cumulative impact is ***less than significant***.

References

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4.21.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from Yucca Valley General Plan (1995a) and associated environmental impact report (1995b). 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 Town and SOI at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the Town of Yucca Valley 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 4 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 4 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 4 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.

Agriculture uses represent less than 1 percent of existing land uses in Yucca Valley. Additionally, according to the California Resource Agency's Department of Conservation 2010 Important Farmland Maps, no portion of the Town is designated Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The Town of Yucca Valley does not designate any land within the Town for agricultural uses. Additionally, no areas in the Town are under Williamson Act contracts.

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

Regional

County of San Bernardino Development Code

The County of San Bernardino Development Code includes Agricultural Land Use Zoning Districts that provide sites for commercial agricultural operations, agricultural support services, rural residential uses and similar and compatible uses. Open space and recreation uses may occur on nonfarmed lands within these AG (Agriculture) land use zoning district. In addition, the Development Code also includes Additional Agriculture (AA) Overlays, which are intended to create, preserve, and improve areas for small-scale and medium-scale agricultural uses utilizing productive agricultural lands for raising, some processing, and the sale of plant crops, animals, or their primary products. It is an overlay where agricultural uses exist compatibly with a variety of rural residential lifestyles. Agricultural Preserve (AP) Overlays were also established for properties that may be subject to a Land Conservation Contract executed between the landowner and the Board.

Local

There are no local regulations pertaining to agriculture/forestry resources.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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 agriculture/forestry resources within Yucca Valley.

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?

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 Yucca Valley. No portion of the Town is designated Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Therefore, implementation of the proposed Regional Reduction Plan would not convert any of the existing 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?

The Town of Yucca Valley does not designate any land within the Town for agricultural uses. Additionally, no areas in the Town are under 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))?

Yucca Valley 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?

Yucca Valley 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?

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 Yucca Valley 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. 2012. *San Bernardino County Important Farmland 2010*.

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

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4.21.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), the Mojave Desert Air Quality Management District CEQA and Federal Conformity Guidelines (2011). 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 Town of Yucca Valley 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 which 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 Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley).

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

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), 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 (O_3) and nitrogen dioxide (NO_2) 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, 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 4.21.7 [Greenhouse Gas Emissions]).

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

Volatile organic compounds (VOC) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. VOCs are synonymous with reactive organic gases. Other sources of VOC include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOC, but rather by reactions of VOC to form secondary pollutants such as O_3 (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 NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 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).

NO_2 is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}, $PM_{2.5}$, and O_3 (SCAQMD 2005).

Sulfur dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. A primary source of SO_2 emissions is high-sulfur-content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO_2 (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 course 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 Section 112, subsection (b) (42 USC 7412(b)) is a toxic air contaminant. 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 the California ARB to designate substances as TACs. Once a TAC is identified, the 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. The California ARB has, to date, established formal control measures for eleven 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, toxic air contaminant 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, the 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 Twentynine Palms Marines monitoring station. Air Quality data is available for 2008 and 2009. The pollutants measured at the Twentynine Palms station include O_3 and CO. The next air quality station closest to Twentynine Palms for which air quality is available is the Joshua Tree National Monument Station (AQS #060719002), which measures O_3 for the California ARB.

The closest station that monitors NO_2, SO_2, PM_{10}, and $PM_{2.5}$ is the Victorville station (AQS #060710306), located approximately 72 miles to the northwest. The air quality data monitored, including federal and state air quality standards for 2007 through 2011 are presented in Table 4.21.3-1 (Ambient Air Quality Monitoring at Victorville Station). All data is from the Victorville station, with the exception of O_3, and CO data for 2008 and 2009 (these are taken from the Twentynine Palms or Joshua Tree National Monument stations as indicated in Table 4.21.3-1). The data show recurring violations of both the state and federal O_3 standards. The data also indicate that the area regularly exceeds the state and federal PM_{10} and federal $PM_{2.5}$ standards. The CO, SO_2, and NO_2 standards have not been violated in the last 5 years at the stations.

Table 4.21.3-1 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 (O_3)[a]					
State 1-Hour ≥ 0.09 ppm	37	0[b]	0[b]	19	21
State 8-Hour ≥ 0.07 ppm	108	15[b]	7[b]	90	90
Federal 8-Hour ≥ 0.075 ppm	81	8[b]	3[b]	53	56
Maximum 1-Hour Average Concentration (ppm)	0.129	0.085[b]	0.087[b]	0.119	0.121
Maximum 8-Hour Average Concentration (ppm)	0.107	0.093[b]	0.080[b]	0.106	0.105
Carbon Monoxide (CO)[c]					
State/Federal 8-Hour > 9.0 ppm	0	0[b]	0[b]	0	0
Max. 8-Hour Average Concentration (ppm)	1.61	—[b, e]	—[b, e]	5.17	1.51
Nitrogen Dioxide (NO_2)[c]					
State 1-Hour ≥ 0.18 ppm[d]	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.071	0.074	0.064	0.137	0.075
Sulfur Dioxide[c]					
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 (PM_{10})[c]					
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 ($PM_{2.5}$)[c]					
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/m^3 = micrograms per meter cubed

a. Data obtained from the Joshua Tree National Park Monitoring Station (AQS #060719002).
b. Data obtained from the MDAQMD Twentynine Palms Monitoring Station. SOURCE: MDAQMD (2008, 2009).
c. Data obtained from the Victorville Monitoring Station (AQS #060710306).
d. California ARB updated the state nitrogen dioxide standard in 2007 from 0.25 ppm to 0.18 ppm.
e. Incomplete data available. No maximum was reported.

Regulatory Framework

Federal

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

The federal Clean Air Act (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 the Cal/EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the 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. The 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. The 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 4.21.3-2 (State and Federal Ambient Air Quality Standards) shows the NAAQS and California Ambient Air Quality Standards for each of the criteria pollutants.

Table 4.21.3-2 State and Federal Ambient Air Quality Standards

Pollutant	*Averaging Time*	*California Standard*	*Federal Primary Standard*	*Major Sources*
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/m^3 = micrograms per meter cubed
a. USEPA recently updated the 8-hour O_3 standard from 0.8 ppm to 0.075 ppm.
b. California ARB updated the state nitrogen dioxide 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/m^3 to 35 µg/m^3.

Regional

Southern California Association of Governments (SCAG)

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

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for

defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

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

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

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, 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 Clean Air Acts, 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 4.21.3-3 (Attainment Status of MDAB) shows the attainment status for criteria air pollutants in the MDAB. As shown in Table 4.21.3-3, the MDAQMD is a designated nonattainment basin for O_3, PM_{10}, and $PM_{2.5}$. In 1991, the San Bernardino County Air Pollution Control District (APCD) prepared the Air Quality Attainment Plan (AQAP) for O_3. This plan established programs and control strategies to achieve the O_3 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 state 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 PM_{10} based on violations of standards between 1989 and 1991. The MDAQMD prepared the Mojave Desert Planning Area (MDPA) Federal PM_{10} Attainment Plan in 1995 to provide dust control programs to meet federal PM_{10} standards by the year 2000. The MDPA covers only the southwestern portions of the Mojave Desert (Victor Valley area) because most of the controllable sources and receptors of PM_{10} 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 PM_{10} has been met within the area for the past eight years and a change of status to attainment is currently being evaluated.

Table 4.21.3-3 Attainment Status of MDAB

Pollutant	*State*	*Federal*
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).

The MDAQMD has adopted attainment plans for a variety of nonattainment pollutants. Table 4.21.3-4 (MDAQMD Attainment Plans) lists the attainment plans applicable to the project area.

Local

Town of Yucca Valley General Plan

The Yucca Valley General Plan includes the following policies specifically related to global climate change:[2]

Land Use Element

Policy 5 Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office and residential uses.

[2] This is 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 6 Encourage in-fill development on subdivided lands localized adjacent to existing residential areas and utilities to maximize the efficient utilization of land and infrastructure.

Circulation Element

Policy 5 Encourage expansion of ridership and the mass transit system operated by the Morongo Basin Transit Authority with the Town and greater Morongo Basin.

Policy 6 As a means of reducing traffic associated with work-related out-mitigation, make every reasonable effort to achieve a jobs/housing balance in the community.

Policy 7 Promote the use of multi-occupant modes of transportation and the shifting of employment-related trips out of current peak traffic periods.

Policy 8 Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Housing Element

Policy 6 Ensure that new housing projects are designed in an energy efficient manner.

Policy 7 Residential development in the Town of Yucca Valley will preserve and protect as much as possible, the desert flora and fauna.

Policy 12 High density, affordable and senior projects shall be located with convenient access to shopping, public transit, and school and park facilities.

Parks Recreation and Trails Element

Policy 1 Incorporate a multi-user trail system into the Parks and Trails Master plan, which will link many parklands and open space destinations.

Policy 4 Plan, coordinate and cooperate with local utility purveyors, County Flood Control Districts and other appropriate parties to include the development of a multi-use trail system within easements and rights-of-way to the greatest extent possible.

Policy 5 Review new residential developments for their potential to incorporate appropriate pedestrian, equestrian, and bicycle trail connections to the Town-wide recreational system.

Community Design Element

Policy 6 Require the use of Specific Plans to implement the "Mixed Use" land use designation, which may include an integrated mix of commercial, residential, institutional, and professional office uses.

Biological Resources Element

Policy 8 Developers and others required to submit landscape plans to the Town for approval shall be required to use native and approved, non-native, drought tolerant plant species which provide or enhance wildlife habitats and serve to extend the local desert environment into the urban design of the Town.

Water Resources Element

Policy 1 Require the use of low water consuming, drought resistant landscape planting as a means of reducing water demand, and shall coordinate with the Hi-Desert Water District to establish a strong education/public relations program to inform residents of a wide range of water saving techniques.

Quality Element

Policy 1 Participate in the monitoring of all air pollutants and regional concentrations on a continuous basis, and shall maintain records of trends in regional air quality.

Policy 2 Coordinate air quality planning efforts with other local, regional, and federal agencies.

Policy 3 Town land use planning shall include efforts to separate sensitive land uses from sources of air pollution.

Policy 4 Pursue programs which reduce emission by creating a land use pattern which can be efficiently served by a diversified transportation system and which minimizes vehicle miles traveled.

Policy 5 Promote the safe and efficient movement of people and materials into and through the Town as a means of reducing the impact of automobiles on local air quality.

Policy 6 All development proposals brought before the Town will be reviewed for potential adverse effects on air quality and will be required to mitigate any significant impacts.

Open Space, Mineral, Energy and Conservation Element (Open Space and Conservation Policies)

Policy 1 With the approval of the local utilities and service providers and County Transportation/Flood Control Department, shall maximize the use of flood control and utility easement areas to develop a multi-user trail system providing alternative transportation links to parks and open space areas.

The Open Space, Mineral, Energy and Conservation Element (Energy Resources Policies)

Policy 1 Develop and implement long-term conservation policies and standards.

Policy 2 Support efforts to develop alternative energy technologies which have minimum adverse impacts on the environment.

Policy 3 Promote energy conservation in public buildings and vehicles, to include a program of incentives to encourage the use of innovative methods of conserving energy.

Policy 4 Provide for the protection and access to existing energy resources, and the development and utilization of these resources.

Policy 5 Promote the use of alternative energy sources through the informing of Town residents and available alternative energy programs and rebates.

Policy 6 Promote the use of ride-sharing and mass transit as a means of reducing transportation related energy demand.

Table 4.21.3-4 MDAQMD Attainment Plans

Name of Plan	*Date of Adoption*	*Standards Targeted*	*Applicable Area*	*Pollutants Targeted*	*Attainment Date*[a]
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: City of Twentynine Palms (2012b).

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 4.18.3-3.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might 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 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- 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 4.21.3-5 (MDAQMD Thresholds of Significance).

Table 4.21.3-5 MDAQMD Thresholds of Significance

Pollutant	*Daily Threshold (pounds per day)*
Volatile Organic Compounds (VOC; an O_3 precursor)	137
Nitrogen Oxides (both NO_2 and NO_X as an O_3 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 toxic air contaminants are as follows:

- Emission of (or exposure to) carcinogenic toxic air contaminants that increase maximum cancer risk by 10 in 1 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 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?

Table 4.21.3-4 lists the applicable air quality management plans for the region that are designed to meet the state and federal Clean Air Act planning requirements with a focus on state and federal O_3 and federal PM_{10} 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 Yucca Valley designed to increase energy efficiency. While these reduction strategies were formulated to reduce greenhouse gases, they also act to improve overall air quality by reducing emissions of criteria pollutants.

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 Town, which will reduce criteria air pollution locally, including O_3 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?

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 (PM_{10} 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.

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, 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 Town of Yucca Valley has chosen in implementing the reduction measures in the Regional Reduction Plan, which would reduce criteria pollutants as well as GHG emissions. Table 4.21.3-6 (Town of Yucca Valley Regional Emissions [lbs/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[3]. For all criteria pollutants, emissions from on-road transportation will be reduced by 26.40 percent, emissions from natural gas combustion by 4.77 percent, and the reduction based on the implementation of the GHG Performance Standards is 1.11 percent.

While the Regional Reduction Plan will reduce anticipated criteria air pollutant emissions resulting from buildout of the Yucca Valley General Plan, but the net emissions from buildout of the General Plan are anticipated to remain over the SCAQMD Thresholds. This significant impact would have been addressed in the Fontana General Plan EIR. Implementation of the Regional Reduction Plan will reduce criteria pollutants thus benefitting air quality in Fontana. Therefore, the impact for the Regional Reduction Plan is ***less than significant***. No mitigation is required.

[3] While the General Plan EIR calculates emissions from electrical generation, this is considered an indirect source and is not typically included as emission sources for air quality analysis. For consistency with the other sections of this EIR, emissions from electrical generation have been omitted. However, emissions from electrical generation will also be reduced through the implementation of the Regional Plan.

Table 4.21.3-6 Town of Yucca Valley Regional Emissions (lbs/day)

Emission Sources	*VOC*	*NO_X*	*CO*	*SO_X[a]*	*PM_{10}*	*$PM_{2.5}$[a]*
Town of Yucca Valley General Plan						
Transportation	199	1,547	7,387	—	698	—
Area Sources[b]	34	542	127	—	1	—
Total Yucca Valley General Plan Emissions[c]	***233***	***2,089***	***7,514***	**—**	***699***	**—**
Changes in Emissions with the Regional Reduction Plan[d]						
Transportation	-53	-408	-1,950	—	-184	—
Area Sources	-2	-26	-6	—	0	—
GHG Performance Standard[e]	-3	-23	-84	—	-8	—
Total Changes to Emissions	***-57***	***-458***	***-2,040***	**—**	***-192***	**—**
Emission Comparison						
Net General Plan Emissions with implementation of the Regional Reduction Plan	176	1,631	5,474	—	507	—
Estimated Regional Reduction Plan Percent Reduction in Air Pollution	-24%	-22%	-27%	—	-27%	—
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**	**82**
Yucca Valley General Plan with Regional Reduction Plan Reductions Significant?	**Yes**	**Yes**	**Yes**	—	**Yes**	—
Regional Reduction Plan Significant?	No	No	No	No	No	No

SOURCE: Town of Yucca Valley, *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan* (September 1995).

lb/day = pounds per day

a. Insufficient information available for SO_X and $PM_{2.5}$ emissions in the Yucca Valley General Plan EIR.

b. While the General Plan EIR calculates emissions from electrical generation, this is considered an indirect source and is not typically included as emission sources for air quality analysis. For consistency with the other sections of this EIR, emissions from electrical generation have been omitted.

c. Excludes emissions from stationary sources.

d. Regional Reduction Plan reductions based on percentage reductions by sector (energy sector = natural gas, etc.).

e. GHG Performance Standard is not sector specific. Estimated reductions based upon expected reductions of totals for new development.

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

As discussed in Table 4.21.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the Town of Yucca Valley. The emissions reduction strategies selected by the Town do not include any new facilities that would result in a new source of TAC emissions, including diesel particulate matter. Therefore, the project would not expose sensitive receptors in the Town 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?

Implementation of the Regional Reduction Plan will not create objectionable odors. None of reduction measures in the Regional Reduction Plan selected by the Town of Yucca Valley include components that typically generate odors. Therefore, this impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Threshold	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

As discussed in Table 4.21.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the Town of Yucca Valley. Regionally, additional air pollutant reductions will take place at power plants due to reductions in electrical demand and increases in renewable energy generation. Therefore, the Regional Reduction Plan will result in a cumulative net reduction in criteria air pollutants. However, this environmental benefit does not reduce air pollutants enough to cause buildout of the General Plan to be less than cumulatively considerable. Therefore, the net emissions resulting from the General Plan with implementation of the Regional Reduction Plan reductions is still a cumulatively considerable contribution to criteria air pollutants for which the MDAB is in nonattainment (O_3, 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 with regard to the proposed project would be ***less than significant***. No mitigation is required.

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4.21.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), Draft Open Space and Conservation Element for the Yucca Valley General Plan Update (2013), and associated biological technical report (Alden Environmental 2013). 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 Town and SOI at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the Lead Agency and the Town of Yucca Valley will determine whether a Biological Resources impact is significant.

Existing Habitats and Vegetation Communities within the Town of Yucca Valley

Yucca Valley is bordered to the south by Joshua Tree National Park, to the west by the San Bernardino Mountains, and to the north and east by relatively open desert habitats. Its location between the Mojave and Sonoran Deserts makes it a biological transition area. Vegetation, flora, and fauna in Yucca Valley are characteristic of those found in both deserts. The rich diversity of plant and animal species and habitats are illustrated in Figure 4.21.4-1 (Yucca Valley Biological Resources). Approximately 65 percent of Yucca Valley is currently vacant due to the Town's low density residential character and isolated, high desert location. Vegetation communities within Yucca Valley's vacant land generally consist of undeveloped desert scrub habitats, Joshua tree woodland, and pinyon-juniper woodland (Yucca Valley 2012). Other vegetation communities that occur are blackbush scrub, creosote bush scrub, desert wash scrub, Mojave mixed woody scrub, Mojavean semi-desert chaparral, nonnative grassland, disturbed lands, and urban/developed lands.

Joshua Tree Woodland

Joshua tree woodland is an open woodland community. The Joshua tree is usually the only arborescent species, and numerous shrub species are also found in this community. While there is typically little to no herbaceous understory, ephemeral herbs may germinate following sufficient late fall or winter rains and flower in mid-spring. Joshua tree woodland is found on sandy, loamy, or gravelly, well-drained gentle alluvial slopes at elevations between 2,500 and 5,000 feet above mean sea level (amsl). It is found on the desert slopes of the southern Sierra Nevada, Tehachapi, and Traverse ranges in Inyo, Kern, Los Angeles, Riverside, and San Bernardino counties and eastward, mainly on slopes and mesas, across the Mojave Desert to southwestern Utah.

Blackbush Scrub

Blackbush scrub is characterized by low growing, often intricately branched shrubs. Within this vegetation community, the crowns of the shrubs typically do not touch, and there is often bare ground between plants. Dominant plants species typically include blackbrush (*Coleogyne ramosissima*) along with Joshua tree, single-leaf pinyon (*Pinus monophylla*), and Utah juniper (*Juniperus osteosperma*). Blackbush scrub is found on dry, well-drained slopes and flats with shallow, often calcareous soils, with low water holding capacity. This vegetation community is found at elevations between 4,000 and 7,000 feet amsl from the Owens Valley region in Inyo and southern Mono counties to the Mojave Desert in Kern and San Bernardino counties.

Creosote Bush Scrub

Creosote bush scrub is characterized by shrubs of varying heights. Within this vegetation community, the shrubs are often widely spaced, and there is often bare ground between the plants. Dominant plant species typically include creosote bush (*Larrea tridentata*) and burrobush (*Ambrosia dumosa*). Creosote bush scrub is found on well-drained secondary soils with very low available water holding capacity on slopes and fans and within valleys. This vegetation community is found at elevations below 4,000 feet amsl and is found extensively from the Death Valley region south into Baja California, Mexico.

Desert Wash Scrub

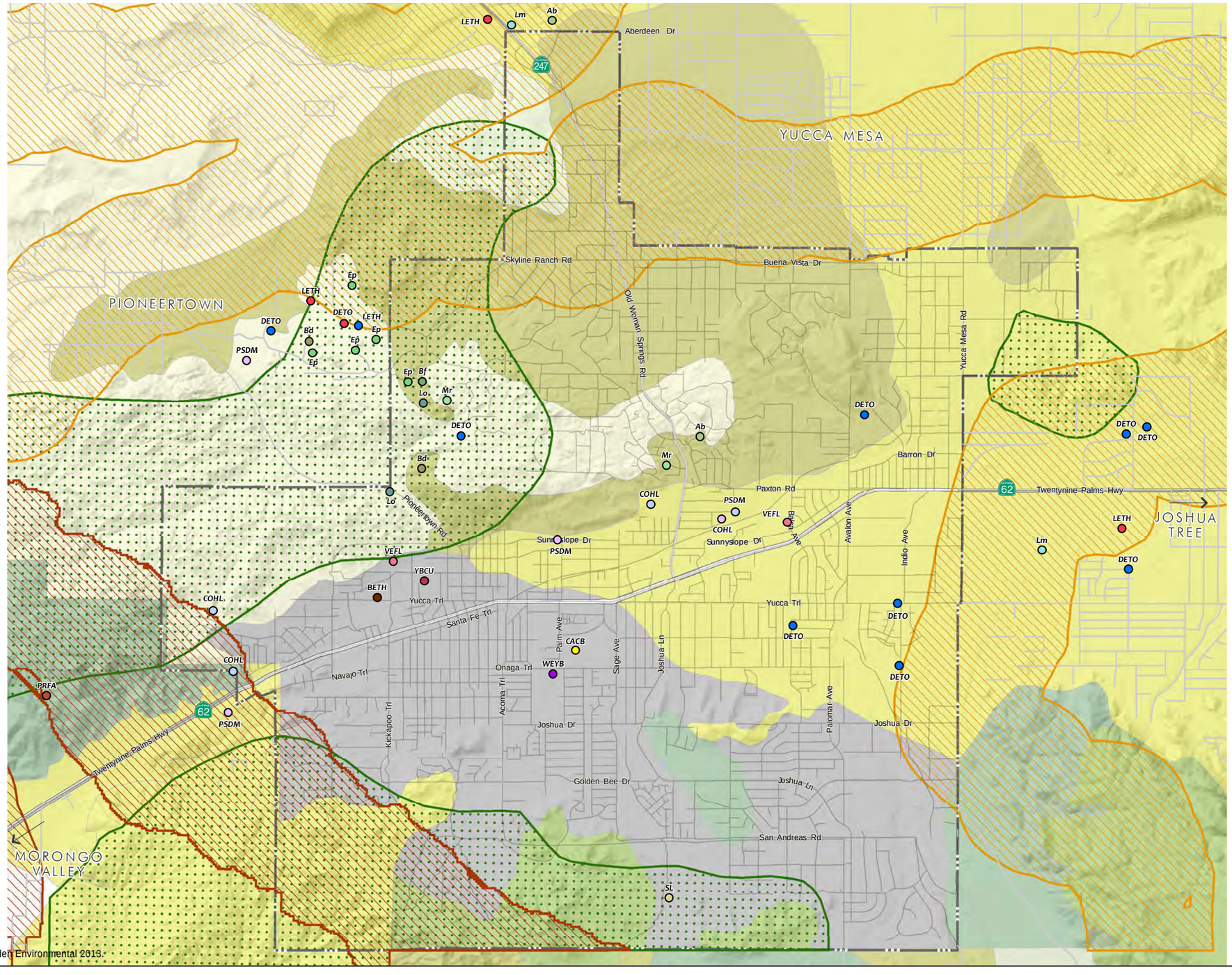
Desert wash scrub is a low growing, scrubby vegetation community with a diversity of species often including catclaw (*Acacia greggii*), desert willow, ephedra (*Ephedra californica*), desert olive (*Forestiera neomexicana*), red-fruited mahonia (*Berberis haematocarpa*), and smoke tree (*Psorothamnus spinosus*). Desert wash scrub is found in sandy arroyos, washes, springs, and alluvial slopes throughout the Mojave Desert, usually below about 5,000 feet.

Mojave Mixed Woody Scrub

Mojave mixed woody scrub is a complex, open scrub community. Dominant plant species typically include by Joshua tree, Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*), and bladderpod (*Isomeris arborea*). Mojave mixed woody scrub is found on rolling to steeply sloping terrain with very shallow, overly-drained soils often formed from granitic parent material. These soils typically have extremely low water holding capacity and mild alkalinity and are not very saline. Mojave mixed woody scrub is found at elevations between 2,000 and 5,000 feet amsl and is widely but erratically scattered from the Owens Valley south along the Tehachapi, San Gabriel, San Bernardino, San Jacinto, and Peninsular mountain ranges into northern Baja California, Mexico.

Mojavean Pinyon and Juniper Woodland

Mojavean pinyon and juniper woodland is an open woodland that either is dominated by single-leaf pinyon with an open shrubby understory of species commonly found in adjacent nonforested stands or is dominated by California juniper with understory of typical Mojave mixed scrub and steppe species. The understory is more diverse than in most pinyon-juniper vegetation communities. This vegetation community often intergrades with Joshua tree woodland and/or creosote bush scrub. Pinyon-dominated



Historic Sensitive Species Locations

Plants
- Bf Fremont's barberry (Berberis fremontii)
- SL Latimer's woodland-gilia (Saltugilia latimeri)
- Lm Little San Bernardino Mountains linanthus(Linanthus maculatus)
- Lo Orcutt's linanthus (Linanthus orcuttii)
- Ep Parish's daisy (Erigeron parishii)
- Bd Pinyon rock-cress (Boechera dispar)
- Mr Robison's monardella (Monardella robisonii)
- Ab San Bernardino milk-vetch (Astragalus bernardinus)

Birds
- BETH Bendire's thrasher (Toxostoma bendirei)
- LETH LeConte's thrasher (Toxostoma lecontei)
- PRFA Prairie falcon (Falco mexicanus)
- VEFL Vermilion flycatcher (Pyrocephalus rubinus)
- YBCU Western yellow-billed cuckoo (Coccyzus americanus occidentalis)

Mammals
- PSDM Pallid San Diego pocket mouse (Chaetodipus fallax pallidus)
- WEYB Western yellow bat (Lasiurus xanthinus)

Reptiles
- COHL Coast horned lizard (Phrynosoma blainvillii)
- DETO Desert tortoise (Gopherus agassizii)

Insects
- CACB California cuckoo bee (Paranomada californica)

CNDDB Land Cover

- Blackbush Scrub
- Mojave Creosote Bush Scrub
- Mojave Mixed Steppe
- Mojave Mixed Woody Scrub
- Mojavean Pinyon and Juniper Woodlands
- Non-Native Grassland
- Semi-Desert Chaparral
- Urban or Built-up Land

Other

- San Bernardino-Little San Bernardino Linkage Design
- Joshua Tree 29 Palms Linkage Design
- Open Space Resource Area
- Town Limits

0 1,500 3,000 6,000

NORTH
SCALE IN FEET

Source: Alden Environmental 2013.

Figure 4.21.4-1
Yucca Valley Biological Resources

ATKINS

Mojavean pinyon and juniper woodland typically is found on steeper, very dry slopes, while the juniper-dominated Mojavean pinyon and juniper woodland typically is found on gentle slopes or alluvium and usually at slightly lower elevations than the pinyon-dominated Mojavean pinyon and juniper woodland. This vegetation community typically is found between 4,000 and 8,000 feet amsl in the desert mountain ranges from the southern Sierra Nevada and Tehachapi mountains, along the desert regions of the Transverse and Peninsular ranges, and in most mountain ranges in the Mojave Desert.

Semi-Desert Chaparral

Semi-desert chaparral is more open than other chaparral communities. Dominant species include a variety of broad-leaved sclerophyllous along with juniper (*Juniperus* spp.), buckwheat (*Eriogonum* spp.), and cactus (*Opuntia* spp.). Semi-desert chaparral typically is found on north-facing, dry, rocky slopes. In Southern California, this vegetation community usually is found between 2,000 and 5,000 feet amsl from Ventura and Santa Barbara counties south into the interior slopes of the Transverse and Peninsular ranges that border the Mojave and Colorado Deserts.

Nonnative Grassland

Nonnative grassland is characterized by a dense to sparse cover of annual grasses. While nonnative grassland is usually dominated by nonnative grass species, numerous native annual forbs may be associated with this vegetation community in years with sufficient rainfall. Nonnative grassland is found on fine textured, often clay soils, that are moist or saturated during the rainy season but very dry during the summer and fall. This vegetation community typically is found below 3,000 feet amsl, but occasionally reaches up to 4,000 feet in some Southern California mountains.

Disturbed Lands

Disturbed lands are those lands that have been modified from their natural conditions so that they provide little or no habitat value to wildlife. Disturbed lands typically consist of vegetation that has been graded or otherwise disturbed so that there is less than 50 percent cover, often dominated by weedy, nonnative species.

Urban/Developed Lands

Urban/developed lands are lands include building, paved roads, parking lots, parks, and residential areas that are either unvegetated or are dominated by exotic, ornamental plant species.

Flora

The Town's proximity to the Mojave Desert gives it a diversity of desert plant species that have adapted to survive the extreme seasonal temperatures and to endure extreme drought condition. Some of the most common plant species include creosote bush, teddy bear cholla, palo verde, Joshua tree, brittlebush, alkali saltbush, Mojave aster, desert fan palm, and triangle-leaf bursage.

Wildlife

Many of the resident desert species of Yucca Valley have special adaptations that allow them to tolerate the high desert temperatures and limited availability of water. Many desert animals are physiologically

adapted to require little or no water in addition to the water they get from the foods that they eat. However, the springs and seeps in the desert and nearby mountains are necessary for the survival of many of the wildlife species found in the area, such as Nelson's bighorn sheep, mule deer and coyote. Some species, including birds, lizards, and ground squirrels, are diurnal, and many other species, such as insects, frogs, toads, snakes, bats, bighorn sheep, kangaroo rats, coyotes, and black-tailed jackrabbits, are active at dawn and dusk or nocturnal to avoid the excessive daytime temperatures.

Reptiles

Reptiles are very common in the Town. There are 42 different reptile species know to occur within and immediately adjacent to the Town. Some of the more common lizards include desert iguana, zebra-tailed lizard, desert collared lizard, desert spiny lizard, western fence lizard, side-blotched lizard, long-tailed brush lizard, desert homed lizard, desert night lizard, and western whiptail. Snakes include the ringneck snake, coachwhip snake, western patch-nosed snake, glossy snake, gopher snake, long-nosed snake, speckled rattlesnake, sidewinder, western rattlesnake, and the Mojave rattlesnake (Yucca Valley 1995).

Birds

Many rare bird species are known to occur in the Morongo Basin, including many that visit and are residents of the Town. An estimated that 235 species of birds have been observed in the area, of which 71 species are estimated to breed in the Town (Yucca Valley 1995).

Mammals

Distributions for 59 mammal species encompass portions of the Town, or are found in the immediate vicinity. The area is within the ranges of at least 12 common bat species. Also, small burrowing mammals that are common to the area include desert cottontail, jackrabbit, several chipmunks, antelope ground squirrel, California ground squirrel, pocket gophers, pocket mice, kangaroo rats, various mice, and wild rats. The larger mammals that occur in the general vicinity, which includes the Joshua Tree National Park, include coyote, kit fox, gray fox, ringtail, raccoon, striped skunk, spotted skunk, mountain lion, bobcat, and mule deer. Most of these larger animals are not common in residential areas, but may be expected in undeveloped, open space areas, and will occasionally frequent slightly developed areas, such as those areas that occur in the northwestern portions of the Town (Yucca Valley 1995).

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.

Sensitive Natural Communities

There are no designated sensitive vegetation communities in Yucca Valley. However, vegetation communities that provide habitat for special status plant and/or wildlife may be subject to protection ordinances. For example, small areas of Yucca Valley are designated wetlands in the U.S. Fish and Wildlife Services (USFWS) National Wetlands Inventory, including parts of the Water Canyon Wash, Yucca Wash, and several small retention ponds and basins (Yucca Valley 2012). Wetland habitats are subject to federal and state regulations, as described under Regulatory Framework.

Additionally, the 306-acre Burns Piñon Ridge Reserve (Reserve) is located within the northwestern limits of the Town. It is characterized by a rugged, boulder-strewn landscape composed of a series of shallow canyons along with steep, rocky ridges of sculptured granite. The Reserve has a diverse mixture of flora and fauna that is characteristic of its unique location as a transition between the lower desert, the upper desert, and the mountains as well as transition area between three floristic regions: the Transverse Range, Sonoran Desert, and Mojave Desert. Habitats protected on the Reserve include pinyon and juniper woodland with elements of Joshua tree woodland and montane chaparral, desert wash, and freshwater seep. The Reserve is a part of the University of California Natural Land and Water Reserves System.

Sensitive Plants

Eleven special status plant species are known to occur within the vicinity of the Town, including the San Bernardino milk-vetch, pinyon rockcress, Robison's monardella and Parish's club-cholla. Special status plant species that occur in the Town area summarized in Table 4.21.4-1 (Sensitive Plant Species Known or Potentially Occurring in the Town of Yucca Valley). No critical habitat for any of these or other special status plant species has been designated within or adjacent to Yucca Valley.

Sensitive Wildlife

Twenty-one special status wildlife species are known to occur within the vicinity of Yucca Valley, including the red diamond rattlesnake, yellow warbler, Nelson's bighorn sheep, burrowing owl, western yellow-billed cuckoo, willow flycatcher, and several species of bat. The desert tortoise, a federally threatened species, is also found in and near Yucca Valley. In addition, two other species, the California cuckoo bee and Nelson's bighorn sheep, do not have a special status ranking but are of special interest in the region were identified within the region. These species are discussed in detail below and summarized in Table 4.21.4-2 (Sensitive Wildlife Species Known or Potentially Occurring in the Town of Yucca Valley). No critical habitat for any of these or other special status wildlife species has been designated within or adjacent to the Town.

Table 4.21.4-1 Sensitive Plant Species Known or Potentially Occurring in the Town of Yucca Valley

Scientific Name	*Common Name*	*Habitat*	*Federal/State Listing Status*	*CNPS Designation*
Astragalus bernardinus	San Bernardino milk-vetch	Blooms April to June. Granitic or carbonate soils. Joshua tree woodland and pinyon-juniper woodland. Elevations from 2,950 to 6,565 feet.	None/None	1B.2
Astragalus tricarinatus	triple-ribbed milk-vetch	Blooms February to May. Sandy or gravelly soils. Joshua tree woodland, creosote bush scrub, and Sonoran Desert scrub. Elevations from 1,475 to 3,905 feet.	FE/None	1B.2
Berberis fremontii	Fremont barberry	Blooms April to June. Rocky soils. Joshua tree woodland, pinyon-juniper woodland, and chaparral. Elevations from 2,755 to 6,070 feet.	None/None	3
Boechera dispar	pinyon rockcress	Blooms March to June. Granitic or gravelly soils. Joshua tree woodland, Mojavean desert scrub, and pinyon-juniper woodland. Elevations from 3,935 to 8,335 feet.	None/None	2.3
Erigeron parishii	Parish's daisy	Blooms May to August. Carbonate soils and sometimes on granitic soils. Pinyon-juniper woodland, creosote bush scrub, and Mojavean desert scrub. Elevations from 2,625 to 6,565 feet.	FT/None	1B.1
Grusonia parishii	Parish's club-cholla	Blooms May to June and sometimes into July. Sandy and/or rocky soils. Joshua tree woodland, creosote bush scrub, Mojavean desert scrub, and Sonoran desert scrub. Elevations from 980 to 5,000 feet.	None/None	2.2
Linanthus killipii	Baldwin Lake linanthus	Blooms May to July. Meadows, seeps, and pebble-plain. Joshua tree woodland and pinyon-juniper woodland. Elevations from 5,575 to 7,875 feet.	None/None	1B.2
Linanthus maculatus	Little San Bernardino Mountains linanthus	Blooms March to May. Sandy soils. Desert dunes, Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub. Elevations from 640 to 6,810 feet.	None/None	1B.2
Linanthus orcuttii	Orcutt's linanthus	Blooms May to June. Openings in chaparral, lower montane coniferous forest, and pinyon-juniper woodland. Elevations from 3,000 to 7,040 feet.	None/None	1B.3
Monardella robisonii	Robison's monardella	Blooms April to September but can bloom as early as February and as late as October. Pinyon-juniper woodland. Elevations from 2,000 to 4,925 feet.	None/None	1B.3
Saltugilia latimeri	Latimer's woodland-gilia	Blooms March to June. Rocky or sandy, often granitic, soils and sometimes in washes. Chaparral, Mojavean desert scrub, and pinyon-juniper woodland. Elevations from 1,310 to 6,235 feet.	None/None	1B.2

SOURCES: Alden Environmental (2013).

Federal Designations
FE = Federally Endangered
FT = Federally Threatened

CNPS Categories
1B = Plants that are rare, threatened, or endangered in California and elsewhere
2 = Plants that are rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which the CNPS needs more information. This is a review list.

CNPS Threat Code Extensions
None: Plant is lacking threat information
1 = Seriously endangered in California
2 = Fairly endangered in California
3 = Not very endangered in California

Table 4.21.4-2 Sensitive Wildlife Species Known or Potentially Occurring in the Town of Yucca Valley

Scientific Name	*Common Name*	*Habitat*	*Federal/State Listing Status*	*Other Designation*
Insects				
Paranomada californica	California cuckoo bee	No habitat data available. Only documented in two locations, both in San Bernardino County	None/None	Special Interest to Region
Reptiles				
Gopherus agassizii	desert tortoise	Desert scrub, washes, dunes, and rocky slopes with firm but not hard pan soils. Elevations from sea level to approximately 5,200 feet.	FT/ST	None/None
Phrynosoma blainvillii	coast horned lizard	Scrubland, grassland, coniferous woods, and broadleaf woodlands, especially in areas with sandy soils, scattered shrubs, and ant colonies, such as along the edges of arroyo bottoms or dirt roads. Elevations from sea level to approximately 6,000 feet.	None/None	CSC
Uma scoparia	Mojave fringe-toed lizard	Habitats with sparse vegetation and windblown sands, such as dune systems and washes. Elevations from below sea level to approximately 3,280 feet.	None/None	CSC
Crotalus ruber	red-diamond rattlesnake	Coastal sage scrub, desert scrub, thornscrub, open chaparral, woodland, grassland, and cultivated areas. Elevations from sea level to approximately 4,900 feet but typically below 3,200 feet.	None/None	CSC
Birds				
Falco mexicanus	prairie falcon	Perennial grasslands, savannahs, rangeland, agricultural fields, desert scrub, annual grasslands, and alpine meadows. Nests on cliff ledges and occasionally in rock crevices.	None/None	Migratory Bird
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Valley foothill and desert riparian habitats, usually with dense, mature riparian woodlands with large stands of cottonwood-willow riparian forest.	FC/SE	None/None
Athene cunicularia	burrowing owl	Dry, open areas with low-growing vegetation in grasslands, deserts, prairies, and agricultural lands often associated with burrowing mammals.	None/None	CSC
Pyrocephalus rubinus	vermilion flycatcher	Cottonwood, willow, mesquite, and other vegetation in desert riparian and desert wash habitats as well as savannas and arid scrub, often associated with surface water.	None/None	CSC
Lanius ludovicianus	loggerhead shrike	Open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree woodland habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	None/None	CSC
Vireo bellii pusillus	least Bell's vireo	Willow-dominated woodland or scrub, Baccharis scrub, mixed oak/willow woodland, mesquite woodland, and elderberry scrub in riparian habitat. Nests and forages in vegetation along streams and rivers that measures approximately 3 to 6 feet in height and has a dense, stratified canopy providing both foraging habitat and song perches for territorial advertisement.	FE/SE	None/None
Toxostoma bendirei	Bendire's thrasher	Variety of desert habitats with Joshua tree, Mojave yucca, cactus, and open ground.	None/None	CSC

Table 4.21.4-2 Sensitive Wildlife Species Known or Potentially Occurring in the Town of Yucca Valley

Scientific Name	*Common Name*	*Habitat*	*Federal/State Listing Status*	*Other Designation*
Toxostoma lecontei	Le Conte's thrasher	Sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills that usually have multiple species of saltbush and/or cholla cactus and undisturbed substrates with accumulated leaf litter beneath desert shrubs for foraging.	None/None	CSC
Dendroica petechia brewsteri	yellow warbler	Variety of riparian habitats varying by biogeographic region but usually in close proximity to water along streams and meadows.	None/None	CSC
Piranga rubra	summer tanager	Desert riparian habitats, usually in older, dense stands along rivers and streams with cottonwoods and willows.	None/None	CSC
Mammals				
Antrozous pallidus	pallid bat	Open desert scrub, grasslands, shrub lands, woodlands, and forests. Roosts in a variety of areas, including rock crevices, caves, mines, tree hollows, and abandoned and occupied buildings.	None/None	CSC
Euderma maculatum	spotted bat	Arid desert, scrub, and open forest habitats, particularly in areas with vertical cliffs or canyons near water. Specific roosting characteristics are poorly understood but known to roost on rock-faced cliffs.	None/None	CSC
Lasiurus xanthinus	western yellow bat	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in palm trees and forages for flying insects over water and among trees in palm oases and riparian habitat.	None/None	CSC
Nyctinomops femorosaccus	pocketed free-tailed bat	Pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, Joshua tree woodland, and palm oasis. Roosts in areas with rugged cliffs, high rocky outcrops, and steep slopes as well as old buildings, mines and caves, and under roof tiles.	None/None	CSC
Nyctinomops macrotis	big free-tailed bat	Desert scrub, woodlands and evergreen forests with roost sites, such as rock outcrops, steep canyon walls, cliffs, buildings, caves, and tree cavities.	None/None	CSC
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	Coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper woodland, and annual grassland with sandy, rocky, or gravelly soils.	None/None	CSC
Ovis canadensis nelsoni	Nelson's bighorn sheep	Alpine dwarf-shrub, low sage, sagebrush, bitterbrush, pinyon-juniper woodland, palm oasis, desert riparian, desert succulent shrub, desert scrub, subalpine conifer, perennial grassland, montane chaparral, and montane riparian.	None/None	Special Interest to Region
Taxidea taxus	American badger	Drier, open stages of shrub steppes, agricultural fields, open woodland forests, and large grass and sagebrush meadows and valleys with friable soils.	None/None	CSC

SOURCE: Alden Environmental 2013.

Federal Designations
FE = Federally listed as Endangered
FT = Federally listed as Threatened
FC = Federal Candidate

State Designations
SE = State listed as Endangered
ST = State listed as Threatened
CSC = California Species of Special Concern

California Cuckoo Bee

The California cuckoo bee is a nest parasite of other solitary ground-nesting bees. Not much is known about the habitat preferences, life history, or behavior of the California cuckoo bee, and it has only been documented in two locations, one near the Town and one approximately 9.5 miles northwest of Pioneertown. The California cuckoo bee is known to occur adjacent to the Town only based on historical data.

Desert Tortoise

The desert tortoise is typically found in desert scrub, washes, dunes, and rocky slopes with firm but not hard pan soils where it feeds on annual grasses, herbs, desert flowers, and cacti. The desert tortoise is found in the Mojave Desert and the Colorado/Sonoran deserts of California, Arizona, southern Nevada, and southwestern Utah, as well as northern Mexico from sea level to approximately 5,200 feet amsl (Stebbins 2003). The most significant threats to the desert tortoise include urbanization, disease, habitat destruction and fragmentation, illegal collection and vandalism by humans, and habitat conversion from native to invasive plant species. The desert tortoise is known to occur within and adjacent to the Town.

Coast Horned Lizard

The coast horned lizard is found in a variety of habitats, including scrubland, grassland, coniferous woods, and broadleaf woodlands, especially in areas with sandy soils, scattered shrubs, and ant colonies, such as along the edges of arroyo bottoms or dirt roads. The coast horned lizard is found in the Sierra Nevada foothills from Butte County south to Kern County as well as throughout the central and Southern California coast, at elevations ranging from sea level to approximately 4,000 feet amsl in the Sierra Nevada foothills and up to approximately 6,000 feet amsl in the mountains of Southern California. This species is absent from much of its former Southern California range as a result of urbanization, agricultural development, over-collecting, and displacement of native ant species by nonnative Argentine ants. The coast horned lizard is known to occur within and adjacent to the Town.

Mojave Fringe-toed Lizard

The Mojave fringe-toed lizard is found in habitats with sparse vegetation and windblown sands, such as dune systems and washes where it feeds on insects, spiders, seeds, and flowers. The Mojave fringe-toed lizard ranges from the Mojave Desert to the southern end of Death Valley National Park, and east to south of Parker in Yuma County, Arizona from elevations from below sea level to approximately 3,280 feet amsl. Threats to this species are associated with off-road vehicle activity and the creation of windbreaks, which alter how the windblown sand is deposited. The Mojave fringe-toed lizard is known to occur adjacent to the Town.

Red-diamond Rattlesnake

The red-diamond rattlesnake is found in a variety of habitats including coastal sage scrub, desert scrub, thornscrub, open chaparral, woodland, grassland, and cultivated areas. Its diet mainly consists of ground squirrels, rabbits, lizards, and carrion. The red-diamond rattlesnake is known from southwestern California, from near Pioneertown and Morongo Valley in San Bernardino County and southeastern Los Angeles County south through Baja California, Mexico, including several islands in the Gulf of California

and several islands off the Pacific coast of Baja California. It is known from elevations ranging from sea level to approximately 4,900 feet amsl, but typically below 3,200 feet amsl. Threats to this species are associated with habitat loss, particularly within the coastal regions of its range. The red-diamond rattlesnake is known to occur adjacent to the Town.

Prairie Falcon

The prairie falcon is associated primarily with perennial grasslands, savannahs, rangeland, agricultural fields, and desert scrub areas but has also been observed using annual grasslands and alpine meadows. It nests on cliff ledges and occasionally in rock crevices. In California, it is a rare breeding resident throughout many arid regions of the state. The relatively small breeding population in California makes the prairie falcon vulnerable to impact. The prairie falcon is known to occur adjacent to the Town.

Western Yellow-billed Cuckoo

The western yellow-billed cuckoo is found in valley foothill and desert riparian habitats, usually with dense, mature riparian woodlands with large stands of cottonwood-willow riparian forest. It forages on large insects, caterpillars, and some fruit. In California, this species is an uncommon to rare summer resident that is found in scattered locations throughout the state. Although the western yellow-billed cuckoo was once a common breeder throughout much of lowland California, this species has declined drastically as a result of habitat loss. The western yellow-billed cuckoo is known to occur within the Town.

Burrowing Owl

Habitat for the western burrowing owl includes dry, open areas with low-growing vegetation in grasslands, deserts, prairies, and agricultural lands; it is often associated with burrowing mammals. Endemic to the Americas, the bulk of the population resides in western North America. The northernmost populations of this species are almost completely migratory; however, the individuals found in Southern California are only partially migratory as evidenced by reduced population sizes in winter, with some birds remaining in their territories throughout the year. Population declines have been attributed to loss of suitable habitat though urban expansion, pesticide use, vehicle collisions, and reduction of the mammals that supply the owl with burrows. The burrowing owl is known to occur adjacent to the Town.

Vermilion Flycatcher

The vermilion flycatcher inhabits cottonwood, willow, mesquite, and other vegetation in desert riparian and desert wash habitats as well as savannas and arid scrub, often associated with surface water. It feeds on flying insects, especially bees, as well as insects from ground. In California, this species is a rare, localized, yearlong resident along Colorado River, but small local populations exist in scattered areas across Southern California. The vermilion flycatcher is known to occur within the Town.

Loggerhead Shrike

The loggerhead shrike is found in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree woodland

habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. It feeds primarily on large insects, other invertebrates, small birds, lizards, frogs, and rodents and sometimes scavenges. In California, it is a common resident and winter visitor in lowlands and foothills throughout the state. Populations have declined as a result of urbanization. The loggerhead shrike is known to occur adjacent to the Town.

Least Bell's Vireo

The least Bell's vireo prefers willow-dominated woodland or scrub, Baccharis scrub, mixed oak/willow woodland, mesquite woodland, and elderberry scrub in riparian habitat. This species typically nests and forages in vegetation along streams and rivers. Endemic to California and Baja California, Mexico, this highly migratory species arrives in California in mid-March and departs by late September when it flies south to wintering grounds near the tip of Baja California, Mexico. Population declines are caused by widespread clearing of riparian habitat combined with brood parasitism by the brown-headed cowbird. The least Bell's vireo is known to occur adjacent to the Town.

Bendire's Thrasher

Bendire's thrasher is found in a variety of desert habitats with Joshua tree, Mojave yucca, cactus, and open ground and feeds on insects and arthropods, such as caterpillars, beetles, grasshoppers, ants, and termites. In California, it is a very local spring and summer resident and breeder that occurs primarily in San Bernardino County and western Kern County. The main threats to Bendire's thrasher are the loss of habitat, such as the clearing of desert scrub habitats and habitats supporting large desert cacti and yucca. Bendire's thrasher is known to occur adjacent to the Town.

Le Conte's Thrasher

The Le Conte's thrasher is found typically in sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills that usually have multiple species of saltbush and/or cholla cactus and undisturbed substrates with accumulated leaf litter beneath desert shrubs for foraging. In California, this species occurs locally in the Antelope and Owens valleys south to the southwestern corner of the San Joaquin Valley (including the Carrizo Plains) and southeast into isolated pockets throughout the Mojave and Colorado Deserts. The Le Conte's thrasher's limited breeding distribution, specialized habitat use, and small population size make it susceptible to changing land use practices. Habitat loss and degradation have been and continue to be the major population-level threats to this species. The Le Conte's thrasher is known to occur within and adjacent to the Town.

Yellow Warbler

The yellow warbler inhabits a variety of riparian habitats in close proximity to water along streams and in wet meadows, and feeds on a variety of small arthropods. In California, this species breeds throughout much of the state, including coastal areas along the length of the state, inland in extreme northern California, throughout the Central Valley, and along the east and west slopes of the Sierra Nevada Mountains, and it winters in southeastern California in the Imperial Valley and along the Colorado River. Like many other riparian songbirds, the yellow warbler population collapsed in the late 1900s as a result of habitat destruction and cowbird parasitism. The yellow warbler is known to occur adjacent to the Town.

Summer Tanager

The summer tanager is found in desert riparian habitats, usually in older, dense stands along rivers and streams with cottonwoods and willows. It eats insects, spiders, and small fruits. In California, the summer tanager is an uncommon summer resident and breeder in the desert riparian habitat along the lower Colorado River and also occurs very locally in other portions of the Southern California deserts. This species has declined primarily from loss of native habitat. The summer tanager is known to occur within the Town.

Pallid Bat

The pallid bat is found in a variety of habitats, including open desert scrub, grasslands, shrub lands, woodlands, and forests, and prefers open, dry environments and rocky areas for roosting. The pallid bat roosts in a variety of areas, including rock crevices, caves, mines, tree hollows, and abandoned and occupied buildings and forage low over open ground, and consume large, hard-shelled prey items such as beetles, grasshoppers, cicadas, spiders, scorpions, and Jerusalem crickets. In California, the pallid bat is a common year-round resident throughout most of California below 6,000 feet amsl but has been documented as high as 10,000 feet amsl. Pallid bats are very sensitive to roost disturbance, as these roosts are crucial for metabolic economy and juvenile development. Threats to pallid bat are generally attributable to loss of roost sites resulting from human intrusion and physical alteration. The pallid bat is known to occur adjacent to the Town.

Spotted Bat

The spotted bat is found in arid desert, scrub, and open forest habitats, particularly in areas with vertical cliffs or canyons near water. Though specific roosting characteristics are poorly understood, the spotted bat is known to roost on rock-faced cliffs. Its diet consists almost exclusively of moths. The spotted bat ranges from southwestern British Columbia, south through the western United States, and into northern Mexico. Though it has a large range, the spotted bat distribution is patchy because of its specific roosting requirements. Because the spotted bat roosts in high cliffs and rock faces, threats to this species are believed to be minimal. The spotted bat is known to occur adjacent to the Town area.

Western Yellow Bat

The western yellow bat is found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. It roosts in palm trees and forages for flying insects over water and among trees in palm oases and riparian habitat. In California, this species is an uncommon, year-round resident that has been documented below approximately 2,000 feet amsl only in Los Angeles and San Bernardino counties. Threats to the western yellow bat are generally associated with the loss of roost sites resulting from human intrusion and physical alteration. The western yellow bat is known to occur adjacent to the Town.

Pocketed Free-tailed Bat

The pocketed free-tailed bat is found in pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, Joshua tree, and palm oasis. It roosts in areas with rugged cliffs, high rocky outcrops, and steep slopes and may also roost in old buildings, mines and caves, and under roof tiles. The pocketed free-tailed bat forages for flying insects mainly over ponds, streams, and arid desert habitats. This species

is found at elevations from sea level to approximately 7,300 feet amsl. In California, this species is a rare, year-round resident that has been reported from Riverside, San Diego, and Imperial counties but may occur in other areas. The pocketed free-tailed bat is known to occur within and adjacent to the Town.

Big Free-tailed Bat

The big free-tailed bat is found in desert scrub, woodlands and evergreen forests where roost sites are available. It feeds primarily on large moths but also eats crickets, grasshoppers, flying ants, stinkbugs, froghoppers, leafhoppers, and other insects. The big free-tailed bat is found at elevations up to 8,000 feet amsl. In California, this species is a rare, year-round resident that is known from urban areas of San Diego County and more rugged, rocky terrain in other parts of its range. Threats to the big free-tailed bat are generally associated with the loss of roost sites resulting from human intrusion and physical alteration. The big free-tailed bat is known to occur adjacent to the Town.

Pallid San Diego Pocket Mouse

The pallid San Diego pocket mouse is likely similar to the San Diego pocket mouse, which is a common resident in coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper woodland, and annual grassland with sandy, rocky, or gravelly soils where it forages on seeds of forbs, grasses, and shrubs. The pallid San Diego pocket mouse is known only from southwestern California and northwestern Baja California, Mexico. It has been documented in Los Angeles, Imperial, Riverside, San Bernardino, and San Diego counties at elevations from sea level up to 4,500 feet amsl in the Santa Rosa Mountains in Riverside County and up to 6,000 feet amsl on the northern slope of the San Bernardino Mountains. The pallid San Diego pocket mouse is known to occur adjacent to the Town.

Nelson's Bighorn Sheep

The Nelson's bighorn sheep occurs in a variety of habitats, including alpine dwarf-shrub, low sage, sagebrush, bitterbrush, pinyon-juniper woodland, palm oasis, desert riparian, desert succulent shrub, desert scrub, subalpine conifer, perennial grassland, montane chaparral, and montane riparian that have suitable escape terrain, such as cliffs or talus slopes. Nelson's bighorn sheep mainly feeds on grasses and forbs but also grazes on shrubs. In California, the Nelson's bighorn sheep is one of three subspecies and occurs in the desert mountain ranges, from the White Mountains in Mono and Inyo counties south into the San Bernardino Mountains and south to the United States/Mexico border. Threats to this species include habitat changes resulting from fire suppression, interactions with feral and domestic livestock, and human encroachment. The Nelson's bighorn sheep is known to occur adjacent to the Town.

American Badger

The American badger is found in drier, open stages of shrub steppes, agricultural fields, open woodland forests, and large grass and sagebrush meadows and valleys with friable soils. It eats of a variety of rodents, scorpions, insects, snakes, lizards, birds, and carrion. In California, it is an uncommon, permanent resident that is found throughout the state, except in the extreme north coast area. Threats to this species are associated mainly with human activities, such as habitat destruction, trapping, hunting, vehicular deaths, and poisoning. The American badger is known to occur adjacent to the Town.

Wildlife Movement Corridors

Undeveloped areas throughout the Town could provide areas for wildlife movement. The Town is also located in close proximity to several conservation areas, including the Reserve located within the Town limits. Joshua Tree National Park abuts the southern Town boundary. Two of the eight official wilderness areas within San Bernardino National Forest are in close proximity to the Town: San Gorgonio and Bighorn Mountain, located northwest of the Town. Big Morongo Canyon Preserve abuts the west end and southwest corner of the Town. The Pioneertown Mountains Preserve is located northwest of the Town. The San Gorgonio Wilderness is located west of the Town boundary. The proposed Sand to Snow National Monument would be located west of the Town and would include land between Joshua Tree National Park and the San Bernardino National Forest, including the San Gorgonio Wilderness and the Big Morongo Canyon Preserve. Open space within Yucca Valley provides wildlife movement areas between the preserves.

The north, east, and southwest edges of the Town are considered important regional wildlife movement corridors, as shown in Figure 4.21.4-1. Two of these corridors, the Joshua Tree-Twentynine Palms corridor on the northern edge of the Town, and the San Bernardino-Little San Bernardino corridor in the southwest area of the Town, have been identified as regionally significant through the California Department of Fish and Wildlife (CDFW) California Essential Habitat Connectivity Project. The goal of the California Essential Habitat Connectivity Project was to identify large blocks of intact habitat and to model linkages between these natural landscape blocks that need to be maintained as linkages/corridors for wildlife movement.

Jurisdictional Waters and Wetlands

U.S. 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 Sections 1600–1603 of the California Fish and Game Code, 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.

The majority of the Town is located within the Morongo Basin watershed. No major water bodies are located within the Town. Wetland and riparian resources within the Town include creeks, washes, underground water (aquifers), and other water courses as well as various riparian vegetation communities that are associated with these water courses. As noted above under Sensitive Natural Communities, although not identified n the California Natural Diversity Database, the USFWS National Wetlands Inventory has designated a number of small wetlands in Yucca Valley. These habitats include mesquite

bosque, riverine, riparian forest, riparian scrub, fresh emergent wetland, freshwater pond, and other wetlands that are associated with Pinyon Creek, Yucca Creek, and numerous other washes. Potential wetland resources are identified in Figure 4.21.4-2 (Potential Wetland Resources in Yucca Valley).

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 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 RWQCB. The Town of Yucca Valley is within the jurisdiction of the Colorado River Basin RWQCB (Region 7).

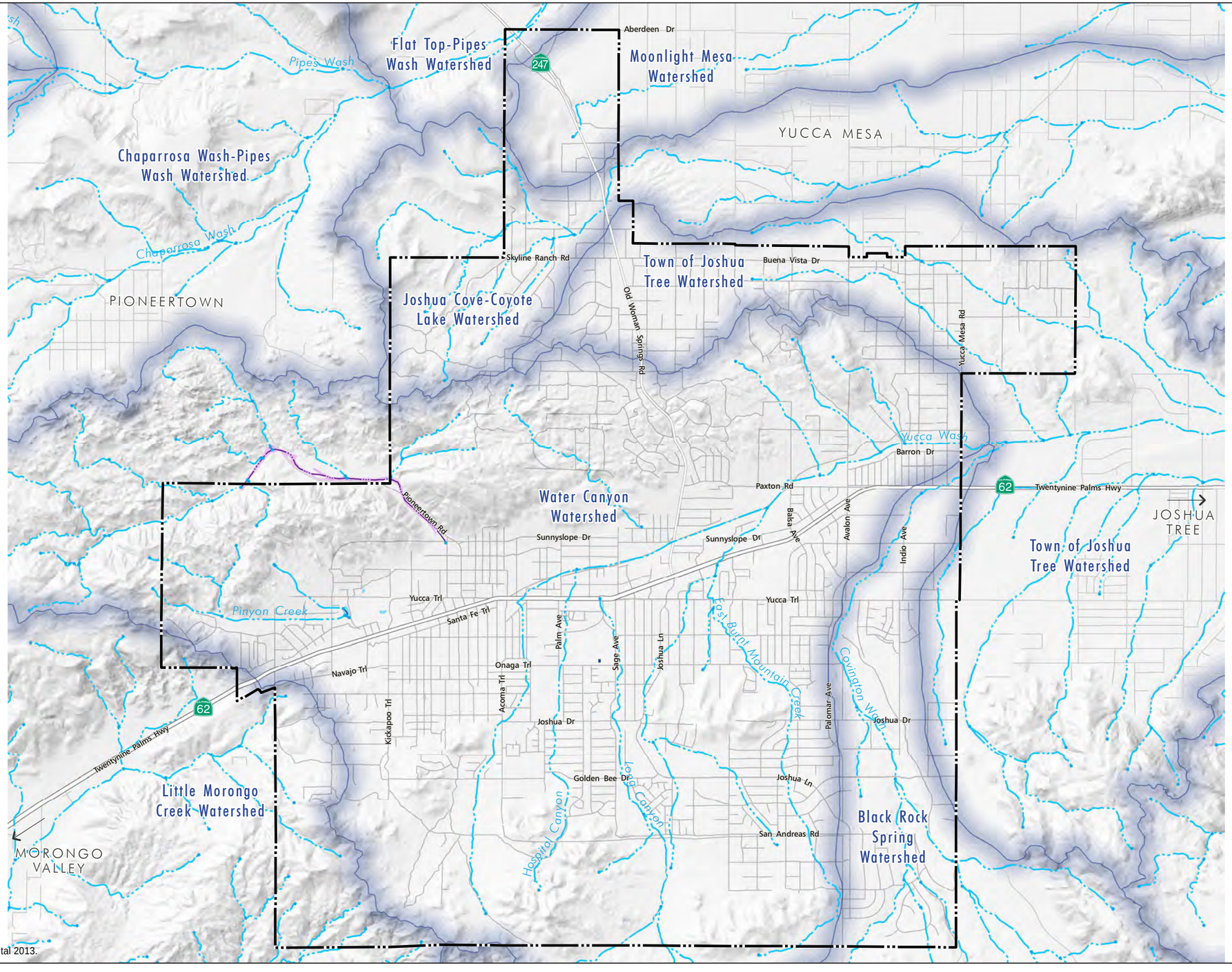
Clean Water Act, Section 404

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. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the RWQCB.

State

California Endangered Species Act

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



***Source*:** Alden Environmental 2013.

Figure 4.21.4-2

Potential Wetland Resources in Yucca Valley

ATKINS

California Fish and Game Code, Section 1600

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

California Desert Native Plants Act

The California Desert Native Plants Act provides protection for nonlisted California desert native plants from unlawful harvesting on both public and private lands within Imperial Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego counties. The California Desert Native Plants Act prohibits a person from harvesting, transporting, selling, or possessing specific native desert plants unless that person has a valid permit or wood receipt, and the required tags and seals. This Act does not apply to the clearing or removal of native plants from a canal, lateral ditch, survey line, building site, or road or other right-of-way by the landowner or his or her agent, if the native plants are not to be transported from the land or offered for sale. This Act does not apply to a public agency or to a publicly or privately owned public utility when acting in the performance of its obligation to provide service to the public (Yucca Valley 2013).

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 Olancha 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 areawide 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 ten years. The Biological Opinion to amend the BLM California Desert Conservation Area Plan was issued by the U.S. Fish and Wildlife Service in January 2006. As of February 2013, the HCP for nonfederal lands is not yet complete; the covered species, boundaries of the conservation areas, survey requirements, funding requirements, and implementing conservation actions for each species require a more detailed description for the local governments to obtain Incidental Take Permits (ITPs) under the Federal and State Endangered Species Acts. Until the Implementation Agreement is signed, the West Mojave Plan will not be in effect on lands under the jurisdiction of the Town.

Desert Renewable Energy Conservation Plan Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)

The proposed Desert Renewable Energy Conservation Plan (DRECP) was established to conserve and manage rare, threatened, and endangered plant and wildlife species while streamlining the review and approval of renewable energy projects in California's desert areas. The DRECP covers approximately 22.5 million acres of federal and nonfederal land located in the California deserts in Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego counties. It is not applicable to privately held lands within Yucca Valley. The DRECP is based on is a collaboration between state (e.g., California Energy Commission, CDFW) and federal (e.g., BLM, USFWS) agencies, with input from local governments, environmental organizations, industry, and other interested parties to provide effective protection, conservation, and management of desert ecosystems while allowing for the appropriate development and timely permitting of renewable energy projects. This plan has not yet been adopted. It is planned to be released for public review sometime in 2013 (Harlow 2012).

Local

Town of Yucca Valley General Plan

The Yucca Valley General Plan Environmental Resources Element policies that are applicable to biological resources[4] are as follows:

Policy 1 Maintain an accurate and regularly updated map and information base on sensitive plant and animal species occurring in the General Plan Study Area.

Policy 2 Support all practical efforts to maintain a broad variety of habitats, including suitable habitat for rare and endangered species occurring in the Town and vicinity.

Policy 3 All development proposals on vacant lands shall be reviewed and evaluated to assure minimal impacts on existing habitat and wildlife.

Policy 4 Assure that sensitive habitat and wildlife areas, as well as national park and wilderness lands, are appropriately buffered from urban development.

Policy 5 Until such time as the Western Mojave Coordinated Management Plan is adopted, the Town shall continue to require Desert Tortoise surveys and, as appropriate, habitat Conservation Plans and will consult, confer and cooperate with the Bureau of Land management, U.S. Fish and Wildlife Service and other appropriate agencies on the West Mojave Plan.

Policy 6 To the greatest extent practical, the Town shall require developers to salvage native Joshua trees and shrubs for incorporation into project landscaping or transplant trees to other sites.

Policy 7 Encourage and cooperate in the establishment of multiple use corridors that use drainage channels and utility easements to provide wildlife corridors and public interconnection between open space areas in the community and vicinity.

[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 8 Developers and others required to submit landscape plans to the Town for approval shall be required to use native and approved, nonnative, drought tolerant plant species which provide or enhance wildlife habitat and serve to extend the local desert environment into the urban design of the Town. Pro-actively encourage and promote an appreciation of sensitive biological resources and the integrated local environment.

Town of Yucca Valley Native Plant Protection and Management Ordinance

This ordinance (Ordinance No. 140; DCA-06-01) requires that a Native Plant Permit be obtained before any identified native plant is moved, transplanted, trimmed, or destroyed. Protected plant species include mesquite, Joshua tree, California juniper, desert willow, pinyon pine, palo verde, manzanita, and plants protected by the California Desert Native Plants Act.

Project Impact Evaluation

Thresholds of Significance

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

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

Analytic Method

The following analysis reviews potential impacts to biological resources within the Town of Yucca Valley.

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?

Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the Town 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 Town. 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 Town are discussed above under Environmental Setting. As discussed in this section, a large portion of the Town is undeveloped with the potential to support sensitive species.

It is the policy of the Town to evaluate the individual impacts of proposed development on biological resources (see General Plan Policy 3). As required by General Plan Program 3.A, all proposed development must conduct a thorough assessment of impacts to habitat and/or wildlife associated with proposed development, including the preparation of detailed biological resource surveys and mitigation programs in identified biologically sensitive areas of the Town. In the case of the desert tortoise, it is also the Town's policy to require compliance with federal survey protocols, and consultation with wildlife agencies when appropriate (see General Plan Policy 5). The Town's Native Plant Protection and Management Ordinance requires projects to obtain a permit before any sensitive native plant is moved, transplanted, trimmed, or destroyed.

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

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the Town because the Regional Reduction Plan does not confer entitlements for development. There are no designated sensitive habitats in the Town; however, renewable energy generation facilities could potentially be built under the plan on vacant land that might contain riparian habitat or other habitat that supports sensitive species.

As stated previously, individual projects undergoing the Town's development approval process would be required to assess and mitigate impacts to sensitive biological resources. Additionally, project would be required to comply 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 (Fish and Game Code Sections 1601–1603). If there are any impacts to riparian areas, the impacts would be required to be mitigated by Fish and Game Code Sections 1601–1603. In conclusion, projects affecting riparian habitat in the Town would be required through the existing permitting process to mitigate potential impacts to riparian areas. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Wetland and riparian resources within the Town include creeks, washes, underground water (aquifers), and other water courses as well as various riparian vegetation communities that are associated with these water courses. 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 Colorado River Basin RWQCB. The applicable permits would require mitigation as determined by the USACE, RWQCB, and/or CDFW for any consequent impacts. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Undeveloped areas throughout the Town provide areas for wildlife movement. The north, east, and southwest edges of the Town are considered important regional wildlife movement corridors, as shown in Figure 4.21.4-1. Two of these corridors, the Joshua Tree-Twentynine Palms corridor on the northern edge of the Town, and the San Bernardino-Little San Bernardino corridor in the southwest area of the Town, have been identified as regionally significant through the CDFW California Essential Habitat Connectivity Project. As discussed above related to sensitive species, General Plan Program 3.A requires proposed development in biological sensitive areas to conduct a thorough assessment of impacts to habitat and/or wildlife associated with proposed development, including the preparation of detailed biological resource surveys and mitigation programs. Additionally, General Plan Policy 2 supports all practical efforts to maintain a broad variety of habitats in the Town. Policy 4 requires that development provide adequate buffers for sensitive habitat and wildlife areas. The edges of the Town where regionally significant movement corridors occur are generally designated for low-density residential development that would maintain a substantial amount of open space. Compliance with the Town's zoning code and requirements to protect habitat and provide development buffers would ensure that an adequate area of open space is maintained for wildlife movement.

There are trees and shrubs scattered throughout the Town 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 Town's survey and mitigation requirements and with the federal MBTA. Under the Town's Native Plan Protection and Management Ordinance, development must also obtain a permit before any identified native plant is moved, transplanted, trimmed, or destroyed. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Implementation of the Regional Reduction Plan would be required to comply with Yucca Valley General Plan policies and the Native Plan Protection and Management Ordinance, 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 Town ordinances during the Town's development review process. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no local HCPs or NCCPs that apply to the Town of Yucca Valley. The West Mojave Plan may be expanded to include nonfederal land in the future, but does not apply to development in the Town at this time. Additionally, the DRECP NCCP/HCP would apply to the Town, but has not been adopted at this time. Compliance with the Town's existing development review process would require surveys and mitigation for sensitive species, including those covered by the West Mojave Plan and DRECP NCCP/HCP, such as the desert tortoise. Therefore, impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Threshold	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

As discussed at a project-level analysis, the Regional Reduction Plan does not directly result in removal of vegetation or wildlife in the Town 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 Town. Renewable energy generation facilities could potentially be built on vacant land that might contain habitat. After compliance with the Town's biological assessment requirements and applicable requirements of the California and federal endangered species acts, 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 Town, 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?

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 Town would be required to determine whether there is potential habitat onsite for sensitive species. If sensitive species were found onsite, 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 and other habitat supporting sensitive species in the Town would be required through the existing permitting process to mitigate potential impacts. 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?

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?

Several regionally significant wildlife movement corridors traverse the Town. However, implementation of the Regional Reduction Plan will not impair the use of these areas in the Town as wildlife movement corridors through compliance with the Town's land use designations and required protections for sensitive species habitat. 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. 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. 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?

Projects proposed under the Regional Reduction Plan and cumulative projects in the Town would be required to demonstrate compliance with Town 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?

There are no regional HCPs or NCCPs that apply to the Town at this time. Therefore, a cumulative impact related to adopted conservation plans would not occur.

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4.21.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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 Town of Yucca Valley 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 is defined by five periods based on general changes in artifact content, population, changes in food procurement and resource exploitation, and more cultural complexity over time. The prehistoric periods are as follows (Cogstone 2012):

- Paleo-Indian/San Dieguito Period (12,000 years to 7,000 years ago)
- Pinto Period (7,000 years to 4,000 years ago)
- Gypsum Period (4,000 years to 1,500 years ago)
- Saratoga Springs Period (1,500 years to 750 years ago)
- Late Prehistoric Period (750 years ago to 200 years ago)

Ethnohistoric Setting

Yucca Valley is situated within the Serrano traditional use area. The Serrano culture area extends from the San Bernardino Mountains south to Yucaipa Valley, east to the Mojave River watershed, and north to the Twentynine Palms region. Most Serrano village sites were located in the foothills of the upper Sonoran zone with a few outliers located near permanent water sources on the desert floor, or in the forest transition zone. Traditional Serrano territory includes areas occupied by three clan groups: the Kitanemuk, Alliklik and the Vanyume. The Kitanemuk were located on the upper Tejon and Paso Creeks near the Tehachapis and extended into the western portion of the Mojave Desert. The Alliklik were located on the upper Santa Clara River, and the Vanyume were located along the Mojave River (Bean and Smith 1978).

Prehistoric and ethnohistoric archaeological sites likely to be found within the Town of Yucca Valley's planning area include: villages represented by residential bases with house features (stone and/or adobe), storage features, human burials and cremations, rock art (pictographs and/or petroglyphs); temporary encampments represented by flaked and ground stone scatters with fire hearths and possibly storage features; resource procurement and processing sites represented by bedrock milling stations, tool stone quarries, flaked and ground stone artifact scatters, and/or hunting blinds; trails demarked by cairns and possibly rock art; isolated cultural features such as rock art, intaglios, and/or shrines; isolated flaked or ground stone artifacts; and traditional cultural landscapes/sacred places that may include important gathering or collecting places, springs, mountain tops or rock outcroppings, burial grounds, etc. (Cogstone 2012)

Historic Setting

The Serrano continued to reside in the greater Yucca Valley study region as Spanish and Mexican prospectors started to make their way into the Valley. It is reported that study area was first explored by Spaniards making forays northward from Mexico along the Southern California coast and Colorado River area. Evidence of other Spanish or Mexican explorers in Yucca Valley is rare or non-existent.

Under the Treaty of Cordova in 1821, Mexico gained independence from Spain and control of California. By 1834, the Spanish mission lands were being redistributed as private Mexican land grants called "ranchos." There is no historical evidence of any Spanish or Mexican settlements in the Yucca Valley area, although it was essentially under the influence of Mexico until the Treaty of Guadalupe Hidalgo in 1848, when Southern California fell under the control of the U.S. Government.

Following the discovery of gold in California 1848 and the admittance of California into the union in 1850, this led to the dramatic influx of non-Native people from throughout the nation, as well as from other countries. Between 1855 and 1856, Colonel Henry Washington conducted the first U.S. Government surveys in the Morongo Basin. In 1867, General William J. Palmer conducted a survey that led to the recommendation of the Morongo Basin route between present day Needles and the coastal and inland valley missions west of the San Gorgonio Pass.

During the 1870s leading up to the turn of the century, the Yucca Valley area was used largely by cattlemen and gold mining prospectors, especially after the discovery of gold east of what is now Twentynine Palms. Cattle were moved between Arizona and California, taking advantage of the watering holes in the great Morongo Basin year-round and the native grasses during the winter months. The first settlers were the de Crevecoeur brothers and their families in approximately 1873, running both cattle and sheep. Large and small gold mines were in operation in Yucca Valley, with several continuing in operation until the mid-1910s

After the turn of the century, homesteading in the Morongo Basin began. However, many individuals and families did not stay in the Morongo Basin long, due to harsh living conditions such as lack of water and the general difficulty in raising crops in a desert environment. The first school in Yucca Valley was established in 1915 with 15 students, following the establishment of an earlier school in Morongo Valley. Most of the prospectors and mining activity had left Morongo Basin by the onset of World War I. In 1936 the government withdrew over 870 square miles of public lands and formed the Joshua Tree National Monument. The last cattle drive through Yucca Valley was in 1947, the same year the Yucca

Valley Airstrip was constructed to accommodate moviemakers, who were accessing nearby Pioneertown, located west of the Town's study area, to film westerns in the form the late 1940s to the 1960s.

By 1966, Yucca Valley had a population of 8,197 and encompassed approximately 33 square miles. Only two years earlier, natural gas lines were installed. Primary industries in the Town switched from mining, cattle, and crops to real estate and construction, reflecting the population growth. Multiple businesses, shopping facilities and professional services developed during the 1950s and 1960s. In 1964, an attempt to incorporate Yucca Valley into a city was vetoed by voters; however, by 1991, Yucca Valley was incorporated as a town and had a population of 20,700 as of the 2010 census.

Historical Resources

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 Town of Yucca Valley 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.

Resources Listed or Eligible for Listing on the National Register of Historic Places

The NRHP is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation, and the NRHP recognizes resources of local, state, and national significance. There are no NRHP-eligible resources in the Town of Yucca Valley (Cogstone 2012).

Resources Listed or Eligible for Listing on the California Register of Historical Resources

The State Historic Resources Commission has designed the CRHR for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The CRHR is the authoritative guide to the state's significant historical and archaeological resources. The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the CEQA. Properties listed in the NRHP are automatically listed in the CRHR and certain CHLs and PHIs are also listed or considered eligible for the CRHR. There are no CRHR-eligible resources in the Town of Yucca Valley (Cogstone 2012).

California Historical Landmarks and Points of Historical Interest

CHLs are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. In order to be considered a CHL, the landmark must meet at least one of the following criteria:

(1) associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values; and (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If a site is primarily of local or countywide interest, it may meet the criteria for the California PHI Program. PHIs are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. To be eligible for designation as a PHI, a resource must meet at least one of the following criteria: (1) the first, last, only, or most significant of its type in the local geographic region (city or county); (2) be associated with an individual or group having a profound influence on the history of the local area; (3) a prototype of, or an outstanding example of, a period, style, architectural movement or construction; or (4) is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder. PHIs designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a CHL and a PHI. If a PHI is subsequently granted status as a CHL, the PHI designation will be retired. There are no listed PHIs and or CHLs in the Town of Yucca Valley (Cogstone 2012).

Locally Important Resources in Yucca Valley

The Morongo Basin Historical Society has identified six historic sites as points of interest in the Town of Yucca Valley: Water Canyon, Desert Christ Folk Art Park, Warren's Well, The Water Tanks, Historical School House, and Yucca Valley Elks Club.

The California Historical Resources Inventory (CRI) identifies four historical resources within the Town: 7858 Elk Trail, 56831 Little League Drive, 7593 Lucerne Vista, and 55486 Onaga Trail (Cogstone 2012).

Archaeological Resources

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic age. 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.

Known historical archaeological site types that may be found in the Yucca Valley Project study are may include: numerous water conveyance features (e.g., canals and canal remnants, standpipes, weirs, pump houses) dating to the late 1800s and early 1900s, historical roads, and historical structural remains associated with former homestead and ranching locations. In addition, other types of historical archaeological resources, such as buried hollow features (e.g., cisterns, privies) containing historical refuse deposits are often associated with former homestead locations (Cogstone 2012).

Paleontological Resources

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

The core of the Town of Yucca Valley is situated on low-sensitivity Quaternary alluvium underlain by moderately sensitive Quaternary older alluvium. The Quaternary alluvium is composed of mostly recent sediments that do not usually contain fossils because the sediments are too young. Fossils of extinct horse and desert tortoise are known within the city limits (west-central portion) in Quaternary older alluvium. Additional fossils are known regionally in the same sediments (near Twentynine Palms) and include extinct animals such as mammoth, ground sloths, camel, horse, llama, dwarf pronghorn and saber-toothed cat. Fossils are also known from the Old Woman Sandstone in the local region. These include extinct animals such as a zebra-like horse and Furlong's rabbit in addition to cotton rat, wood rat and brown bat (Cogstone 2012).

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 Native American Heritage Commission (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

Town of Yucca Valley General Plan

The General Plan policy that is applicable to cultural resources[5] is as follows:

Archaeological and Historic Resources Element

Policy 2 Exercise its responsibility to locate, identify, and evaluate archaeological, historical and cultural sites, and shall assure that appropriate action is taken to protect these resources.

[5] This is not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Project Impact Evaluation

Thresholds of Significance

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

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

Analytic Method

The following analysis considers the presence and absence of historical, archaeological, or paleontological resources within the Town. 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 Yucca Valley, Town planning documents were reviewed, and searches were conducted on-line for resources listed in the NRHP and CRHR (Yucca Valley 1995; Cogstone 2012; 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?

Based on what is known of the histories of local Native American groups and prehistoric and historical archaeological sites recorded previously, potentially significant archeological resources are known to exist within the Town's planning area. These resources 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 and implementation programs in the Yucca Valley General Plan incorporate specific measures to protect and preserve paleontological resources. The General Plan Archaeological and Historic Resources Element policy and program relevant to this impact are as follows:

Policy 1 Exercise its responsibility to locate, identify, and evaluate archaeological, historical and cultural sites, and shall assure that appropriate action is taken to protect these resources.

Program 2.A: Insure that development or land use proposals, which have the potential to disturb or destroy sensitive resources, shall be evaluated by a qualified professional through appropriate resource surveys, and that mitigation measures are implemented.

All projects within the Town of Yucca Valley are required to follow this policy and associated implementation program, which include identifying the presence or absence of archaeological resources, completing a Phase I assessment of such resources when deemed necessary by the AIC and especially when located in areas of high sensitivity, and mitigating any significant impacts. Adherence to General Plan policy and implementation program reduces impacts to archaeological resources to a less-than-significant level by requiring the examination and evaluation of archaeological resources encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Quaternary older alluvium has previously produced two fossils within the Town limits and many others in the region. Throughout Southern California, the Quaternary older alluvium has produced scientifically important fossils in unpredictable locations. Implementation of the Regional Reduction Plan in Yucca Valley is not expected to include activities that would directly result in extensive ground disturbance in previously undisturbed soils.

Policies and implementation programs in the Yucca Valley General Plan incorporate specific measures to protect and preserve paleontological resources. The General Plan Archaeological and Historic Resources Element policy and program relevant to this impact are as follows:

Policy 1 Exercise its responsibility to locate, identify, and evaluate archaeological, historical and cultural sites, and shall assure that appropriate action is taken to protect these resources.

Program 2.A: Insure that development or land use proposals, which have the potential to disturb or destroy sensitive resources, shall be evaluated by a qualified professional through appropriate resource surveys, and that mitigation measures are implemented.

All projects within the Town of Yucca Valley are required to follow this policy and associated implementation program, which include identifying the presence or absence of paleontological resource localities and sensitive geologic units, as well as monitoring within high sensitivity areas. Adherence to General Plan policy and implementation program reduces impacts to paleontological resources to a less-

than-significant level by requiring the examination and evaluation of paleontological resources encountered. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Although Native American human remains are normally associated with former residential village locations, isolated burials and cremations have been found in many other locations. However, the Regional Reduction Plan does not include activities that would directly result in extensive ground-disturbing activities, which renders it unlikely that human burials would be disturbed as a result of project implementation. In addition, and in the event human remains are encountered, the discovery is required to comply with California Health and Safety Code Sections 7050.5–7055. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are discovered during excavation of a site. As required by state law, the requirements and procedures set forth in California PRC Section 5097.98 would be implemented, including notification of the County Coroner, notification of the NAHC, and consultation with the individual identified by the NAHC to be the Most Likely Descendant. If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlie adjacent remains until the County Coroner has been contacted, the remains investigated, and appropriate recommendations made for the treatment and disposition of the remains. Given required compliance with state regulations that detail the appropriate actions necessary in the event human remains are encountered, impacts would be reduced to ***less than significant***. No mitigation is required.

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?

Implementation of the Regional Reduction Plan will include energy-efficiency retrofit activities and the installation of solar on existing housing and existing commercial 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 Town, 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 that 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 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. Yucca Valley General Plan Archaeological and Historic Resources Element Policy 1 and associated implementation program, shown above, would minimize impacts to historical resources through determining the presence or absence of historical resources, completing a Phase I assessment of such resources when deemed necessary by the Archaeological Information Center (AIC) and especially when located in areas of high sensitivity, and mitigating any significant impacts.

With the application of the General Plan policies and implementation measures for historical resources, as well as mitigation measure MM4.21.1-1 to address unidentified, potential historical resources (buildings or structures 50 years and older), impacts would be reduced to ***less than significant***.

MM4.21.1-1 *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 Town of Yucca Valley, 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?

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 Town policies and implementation measures as outlined in the General Plan,

and the implementation of mitigation measure MM4.21.1-1 requires qualified professionals to conduct site-specific cultural resource investigations for future activities associated with the Regional Reduction Plan. Compliance with existing Town policies and MM4.21.1-1 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?

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 would follow CEQA and existing Town policy and associated implementation program. 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?

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 would follow CEQA and existing Town policy and associated implementation program. 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?

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***.

References

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

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———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

4.21.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), the draft Safety Element of the General Plan update (2012), and the Technical Background Report to the Safety Element for the draft General Plan (Cogstone 2012). 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

Geology and Physiography

Yucca Valley is located at the boundary of two distinct geomorphic provinces. The northern part of the Town, generally north of Highway 62, lies within the Mojave Desert Province. The southern part of the Town reaches up the north flank of the Little San Bernardino Mountains, a moderately high range that is the southernmost extension of the Transverse Ranges Province. The most striking feature is the dramatic contrast between the desert plains and the adjacent mountains, a direct result of movement along geologically young faults associated with those provinces. Within the Town limits, the gradient of the valley falls very gently to the east, from an elevation of about 3,400 feet above sea level (asl) at its western edge, to about 3,100 feet asl at its eastern edge. North of the valley, the Sawtooth Mountains form rounded hills with picturesque bouldery outcrops. In addition to the Sawtooths, the valley is framed by the San Bernardino Mountains to the west, the Bartlett Mountains to the east, and the Little San Bernardino Mountains to the south.

Geologic units in Yucca Valley are mapped as Quaternary alluvium, Quaternary older alluvium, Quaternary Older fan, Quaternary older gravel, Quaternary older fanglomerate, basalt, Old Woman Sandstone, quartz monzonite, monzonite porphyry, and gneissic rocks. The oldest geologic units in the Yucca Valley area consist of hard, crystalline rock that is exposed in the mountains and buried beneath alluvium.

Faults and Seismic Hazards

There are several active faults that pass through the Town of Yucca Valley. The faults, which are mapped as Alquist-Priolo Earthquake Fault Zones requiring special investigation and development considerations because they can result in surface fault rupture (see Regulatory Framework, below), are from west to east, the Morongo Valley, Pinto Mountain, Johnson Valley fault zone, Burnt Mountain fault, and Eureka Peak faults. Figure 4.21.6-1 (Geologic Hazards) shows the locations of these fault zones.

Of these faults, the Pinto Mountain fault is the most significant seismic source in the Yucca Valley General Plan area. The fault extends across the Town in an east to east-northeast direction, locally underlying Highway 62, and extending across all north-south access roads that connect Highway 62 with

the northern part of Town. A high pressure gas transmission line that extends across the Town both extends along and locally crosses the Pinto Mountain fault zone, a condition that can result in dozens of breaks of the pipeline in Yucca Valley when the Pinto Mountain fault ruptures next. This fault has not caused an earthquake in historic times, but paleoseismic studies indicate that it has a recurrence interval of between about 2,500 and 3,000 years. Yucca Valley is approximately 9 miles northeast of the Coachella Valley segment of the San Andreas Fault. Other faults in the area capable of producing large earthquakes include the Emerson South-Copper Mountain fault zone, North Frontal fault, and the Helendale fault. Several notable past earthquakes were felt strongly in Yucca Valley, but a concentration of intense seismic activity associated with the Landers earthquake in 1992 was the most destructive in recent history.

Strong to moderate ground shaking due to future earthquakes on regional sources, including the Pinto Mountain and San Andreas faults can be expected in Yucca Valley. Although young alluvial sediments underlie the valley, and strong groundshaking can occur in the region, the liquefaction susceptibility of the Yucca Valley area is currently considered low to none. Soil falls, slides and slumps may occur in the hillside areas of the Sawtooth Mountains, on Burnt Mountain, at the northern edges of the Little San Bernardino Mountains, and along the edges of several of the drainages in the area. All of these types of slope failure can occur as a result of strong groundshaking. Precariously perched rocks are common in some areas of the Sawtooth Mountains. Earthquake-induced ground shaking could dislodge some of these rocks, posing a rockfall hazard to areas adjacent to and below these slopes. Those areas of Yucca Valley underlain by youthful unconsolidated alluvial sediments may be susceptible to seismically induced settlement.

Other Geologic Hazards

The Town of Yucca Valley is susceptible to a variety of other geologic hazards due to its steep terrain. Erosion, slope instability, rockfalls and rockslides, as well as soil slips and mudflows are all possible potential geologic hazards. Locations of potential geologic hazards are shown in Figure 4.21.6-1.

Slope instability is a potential hazard where development has encroached onto the hills and mountains. The rock types forming the local mountains are generally resistant to deep-seated landsliding, so future slope failures are more likely to consist of surficial soil failures and the erosion of sandy geologic materials. Such failures typically occur during exceptional and/or prolonged rainfall, and may manifest as mud or debris flows. Large debris flows may impact properties in the valley downslope, sometimes at considerable distance from the source. Rockfall is a hazard in and near the base of the Sawtooth and Bartlett Mountains, in areas where the bedrock forms bouldery outcrops. Rockfall is more likely to occur as a result of earthquake-induced groundshaking, posing a threat to structures and passing motorists.

Potentially compressible and/or collapsible soils underlie a significant part of Yucca Valley, typically where geologically sediments have been deposited, such as active or recently active alluvial fans, floodplains, washes, and canyon bottoms. These sediments generally have low density and variable amounts of organic materials. Under the added weight of fill embankments or buildings, these sediments can settle, causing distress to improvements.

Note: 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. All faults may not be shown. The width and location of faults is approximate and should not be used in lieu of site-specific investigations, evaluation and design.

YUCCA MESA

PIONEERTOWN

MORONGO VALLEY

JOSHUA TREE

Aberdeen Dr
Johnson Valley Fault Zone
Skyline Ranch Rd
Buena Vista Dr
Old Woman Springs Rd
Yucca Mesa Rd
Barron Dr
Pinto Mountain Fault Zone
Paxton Rd
Twentynine Palms Hwy
Pioneertown Rd
Sunnyslope Dr
Baja Ave
Avalon Ave
Indio Ave
Yucca Trl
Santa Fe Trl
Palm Ave
Sage Ave
Joshua Ln
Onaga Trl
Acoma Trl
Navajo Trl
Kickapoo Trl
Joshua Dr
Golden Bee Dr
Palomar Ave
Eureka Peak Fault Zone
San Andreas Rd
Burnt Mountain Fault Zone

247
62

Alquist-Priolo Earthquake Fault
Fault; not zoned undeer the Alquist-Priolo Act
Alquist-Priolo Earthquake Fault Zone
Town Limits

Earthquake-Induced Slope Instability

Rock Falls
Rock Slides
Soil Falls
Soil Slides
Soil Slumps

Liquefaction Susceptability

Low - Areas underlain by course-grained Holocene age sediments, groundwater depth > 100' or unknown
Very Low - Areas underlain by course-grained Pleistocene age sediments, groundwater depth > 100' or unknown

0 1,500 3,000 6,000
SCALE IN FEET
NORTH

***Source*:** Town of Yucca Valley, 2012.

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Figure 4.21.6-1
Geologic Hazards

ATKINS

Although not prevalent, some of the geologic units in Yucca Valley may have fine-grained components that are likely to be expansive. These materials may be present at the surface or may be exposed by grading activities. Man-made fills can also be expansive, depending on the soils used to construct them.

Sediments forming the alluvial fans in Yucca Valley are typically dry, loose, and sandy, resulting in a high susceptibility to erosion, particularly of the youngest, unconsolidated materials. Flooding due to infrequent but violent thunderstorms can result in severe erosion, especially if flows are concentrated. Thunderstorms that follow a season of mountain wildfires can transport great volumes of sediment onto the low-lying areas below.

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 several Alquist-Priolo Earthquake Fault Zones mapped in the Town of Yucca Valley.

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 ground shaking, 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 Yucca Valley 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 Town of Yucca Valley has adopted the 2010 CBC (Ordinance 220).

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). Appendix J of the CBC 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 Cal-OSHA 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

Town of Yucca Valley Municipal Code

Title 8 of the Municipal Code (Buildings and Construction) incorporates CBC standards to address seismic and other geologic hazards, as modified by the Town to address specific conditions. The Town has prepared a draft Development Code (Title 9). Chapter 9.97 sets forth the standards for preparation and review of soils reports and geologic investigation reports.

Town of Yucca Valley General Plan

The Yucca Valley General Plan policies that are applicable to geology and soils[6] are as follows:

Seismic Safety Element

Policy 2 In accordance with State law, development proposals within designated Alquist-Priolo Earthquake Fault Zones shall be accompanied by appropriate geological analysis.

Policy 8 Development in areas identified as being subject to a rockfall or landslide hazard shall be avoided.

Slopes, Sediment Control and Soil Conservation Element

Policy 2 Development proposals within areas identified by the Town as having steep slopes and/or subject to rockfalls, landslides or excessive erosion shall be accompanied by appropriate geotechnical analysis.

Policy 5 In order to control soil disturbance and erosion, grading associated with all development plans shall be kept to the minimum necessary to provide for planned improvements, while maintaining maximum natural and undisturbed vegetation.

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

[6] 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.

- 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, and available resource mapping. GHG reduction measures selected by the Town of Yucca Valley in the Regional Reduction Plan were reviewed to determine which actions could result in physical changes to the environment that could affect or be affected by seismic hazards, erosion, or other geologic or soils hazards.

Effects Not Found to Be Significant

Threshold	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: ■ 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

There are Alquist-Priolo Earthquake Fault Zones mapped in the Town of Yucca Valley, indicating surface rupture during an earthquake is possible. The most significant of these is the Pinto fault. Implementation of the Regional Reduction Plan does not propose specific development projects that could be at risk of surface fault rupture. Energy-saving features installed as part of implementation of Regional Reduction Plan measure PS-1 (GHG Performance Standard for New Development) would be integral to the specific development project, for which the Town would require site-specific study in accordance with the Alquist-Priolo Act and to ensure compliance with General Plan Seismic Safety Element Policy 2. Similarly, if off-site solar systems are contemplated for new commercial uses (Energy-5), such projects, if proposed where surface fault rupture could pose a hazard, would also be required to be investigated and mitigated, as appropriate.

Strong groundshaking is possible in Yucca Valley due to the presence of active faults within the Town and nearby faults. There is little liquefaction hazard, but earthquake-triggered landslides and rockfalls are possible in steeper areas. As part of project approvals, the Town would require soils reports and geotechnical investigations, as required by General Plan Seismic Safety Element Policy 2 and General Plan Slopes, Sediment Control and Soil Conservation Element Policy 8 and Municipal Code Title 9 to determine appropriate design and construction to mitigate seismic hazards such as groundshaking and slope hazards.

Therefore, implementation of the Regional Reduction Plan would not expose people or structures to groundshaking-related seismic hazards, and the impact would be ***less than significant***. No mitigation is required.

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

Sediments forming the alluvial fans in Yucca Valley are typically dry, loose, and sandy, resulting in a high susceptibility to erosion, particularly of the youngest, unconsolidated materials. Flooding due to infrequent but violent thunderstorms can result in severe erosion, especially if flows are concentrated.

Potential 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 such as those incorporated into new development (PS-1) and off-site solar systems for new commercial land uses (Energy-5), and would depend largely on the areas affected and the length of time soils are subject to erosion. Any reduction measure that would result in ground disturbance would require a soils report and would require a grading permit and an approved Erosion Control Plan. This would reduce soil erosion potential related to construction activities associated with implementing the Regional Reduction Plan. 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 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?

Slope instability is a potential hazard where development has encroached onto the hills and mountains. The rock types forming the local mountains are generally resistant to deep-seated landsliding, so future slope failures are more likely to consist of surficial soil failures and the erosion of sandy geologic materials. Rockfall is a hazard in and near the base of the Sawtooth and Bartlett Mountains, in areas where the bedrock forms bouldery outcrops. Rockfall is more likely to occur as a result of earthquake-induced groundshaking. Potentially compressible and/or collapsible soils underlie a significant part of Yucca Valley, typically where geologically sediments have been deposited, such as active or recently active alluvial fans, floodplains, washes, and canyon bottoms. These sediments generally have low density and variable amounts of organic materials. Under the added weight of fill embankments or buildings, these sediments can settle, causing distress to improvements.

Implementation of the Regional Reduction Plan does not propose specific development projects that could be vulnerable to unstable geologic or soils conditions. Energy-saving features installed as part of implementation of Regional Reduction Plan measure PS-1 (GHG Performance Standard for New Development) would be integral to the specific development project, for which the Town would require soils reports to ensure compliance with General Plan Seismic Safety Element Policy 2 and General Plan Slopes, Sediment Control and Soil Conservation Element Policy 5 and Municipal Code Title 9. The results of the soils report would be used to identify appropriate design and construction methods. Similarly, if off-site solar systems are contemplated for new commercial uses (Energy-5), such projects, if proposed where unstable slopes could pose a hazard, would also be required to be investigated and mitigated, as appropriate.

Therefore, implementation of the Regional Reduction Plan would not result in substantial hazards from unstable geologic or soil units, and the impact 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?

Although not prevalent, some of the geologic units in Yucca Valley may have fine-grained components that are likely to be expansive. These materials may be present at the surface or may be exposed by grading activities.

Implementation of the Regional Reduction Plan does not propose specific development projects that could be vulnerable to expansive soil conditions. Energy-saving features installed as part of implementation of Regional Reduction Plan measure PS-1 (GHG Performance Standard for New Development) would be integral to the specific development project, for which the Town would require soils reports to ensure compliance with Title 9 of the Municipal Code. Similarly, if off-site solar systems are contemplated for new commercial uses (Energy-5), a soils report would be required. The results of the soils report would be used to identify appropriate design and construction methods.

Therefore, implementation of the Regional Reduction Plan would not result in substantial hazards related to expansive soils, and the impact would be ***less than significant***. No mitigation is required.

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

Currently, Yucca Valley relies on septic systems for wastewater disposal. However, none of the reduction measures are related to or require the need for septic tanks or alternative wastewater disposal systems. There would be ***no impact***.

Cumulative Impacts

Future growth envisioned in the General Plan would result in development of vacant and underutilized parcels, which could be affected by seismic hazards or other geotechnical conditions, or could cause erosion. Geologic and soils hazards and erosion are typically site-specific and do not combine to produce cumulative effects. Policies in the General Plan and related Implementation Measures and adherence to CBC and Town standards for development would reduce impacts of new development to the extent required by law.

The Regional Reduction Plan would not result in any direct or indirect significant effects related to geology and soils, and, therefore, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

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4.21.7 Greenhouse Gas Emissions

This section of the EIR analyzes the potential environmental effects on greenhouse gas (GHG) emissions in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), and publications prepared by a number of professional associations and agencies that have suggested approaches and strategies for complying with CEQA's environmental disclosure requirements. Such organizations include the California Attorney General's Office (AGO), the California Air Pollution Controls Officers Association (CAPCOA), the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the Climate Registry, and the Association of Environmental Professionals (AEP). Full reference-list entries for all cited materials are provided at the end of this section.

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

Environmental Setting

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

The Town of Yucca Valley emitted approximately 148,044 MT CO_2e in 2008. The emissions were calculated based on the 2012RTP traffic modeling, data from utilities, and land use. The largest portion of the Town's 2008 emissions were from transportation (48.04 percent), followed by emissions from electricity and natural gas use in buildings (36.10 percent). Table 4.21.7-1 (2008 Net Total Emissions) summarizes the Town's net 2008 emissions of CO_2e 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.

Table 4.21.7-1 2008 Net Total Emissions

Category	*Metric Tons of CO_2e*
Energy	53,437
On-Road Transportation	71,120
Off-road Equipment	6,680
Water and Wastewater	5,815
Solid Waste	10,992
Agriculture	0
Total	***148,044***
Excluded Stationary Sources under Title V Permits[a]	16,719

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

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

Carbon Dioxide

The natural production and absorption of carbon dioxide occurs through the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions, such as those required to manufacture cement. Globally, the largest source of CO_2 emissions is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. A number of specialized industrial production processes and product uses, such as mineral or metal production, and the use of petroleum-based products, leads to CO_2 emissions.

CO_2 is removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle. Natural sources of CO_2 occur within the carbon cycle where billions of tons of atmospheric CO_2 are removed by oceans and growing plants and are emitted back into the atmosphere through natural processes. When in balance, total CO_2 emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, including burning of oil, coal, and gas and deforestation, increased CO_2 concentrations in the atmosphere by 35 percent as of 2005.

Methane

Methane is emitted from a variety of both human-related and natural sources. CH_4 is emitted during the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global CH_4 emissions are related to human activities. Natural sources of CH_4 include wetlands, gas hydrates,[7] permafrost, termites, oceans, freshwater bodies, nonwetland soils, and wildfires. CH_4 emissions levels from a particular source can vary significantly from one country or region to another. These variances depend on many factors, such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes resulting in CH_4 emissions from both human and natural sources. Also, the implementation of technologies to capture and utilize CH_4 from sources such as landfills, coal mines, and manure management systems affects the emissions levels from these sources.

[7] Gas hydrates are crystalline solids that consist of a gas molecule, usually methane, surrounded by a "cage" of water molecules.

Nitrous Oxide

Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution reaching 314 parts per billion (ppb) by 1998. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce nitrous oxide. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N_2O.

Chlorofluorocarbons

Chlorofluorocarbons have no natural source, but were synthesized for uses as refrigerants, aerosol propellants, and cleaning solvents. Since their creation in 1928, the concentrations of CFCs in the atmosphere have been rising. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken, and levels of the major CFCs are now remaining static or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years. Since they are also a GHG, along with such other long-lived synthesized gases as CF_4 (carbontetrafluoride) and SF_6 (sulfurhexafluoride), they are of concern. Another set of synthesized compounds called HFCs (hydrofluorocarbons) are also considered GHGs, though they are less stable in the atmosphere and therefore have a shorter lifetime and less of an impact. CFCs, CF_4, SF_6, 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.

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

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

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

Ecosystems and Biodiversity. Climate change could have effects on diverse types of ecosystems, from alpine to deep sea habitat. As temperatures and precipitation change, seasonal shifts in vegetation would occur, which would potentially have an effect on the distribution of associated flora and fauna species. As the range of species shifts, habitat fragmentation could occur, with acute impacts on the distribution of certain sensitive species. The IPCC states that "20 percent to 30 percent of species assessed may be at risk of extinction from climate change impacts within this century if global mean temperatures exceed 2 to 3°C (3.6 to 5.4°F) relative to pre-industrial levels" (IPCC 2007). Shifts in existing biomes[8] 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.

Potential Effects of Human Activity on Climate Change

The burning of fossil fuels, such as coal and oil, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO_2 concentrations were found to have increased by nearly 30 percent above pre-industrial (c. 1760) concentrations.

[8] A biome is a major ecological community classified by the predominant vegetation, and hence animal inhabitants.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP), and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalents (CO_2e), and are often expressed in metric tons (MT) or millions of metric tons (MMT) of CO_2e:

- **Global Emissions**—Worldwide emissions of GHGs in 2004 were nearly 30 billion tons of CO_2e per year (including both on-going emissions from industrial and agricultural sources, but excluding emissions from land-use changes) (United Nations 2007).
- **U.S. Emissions**—In 2004, the United States emitted 7.1 billion tons of CO_2e. Of the four major sectors nationwide — residential, commercial, industrial, and transportation — transportation accounts for the highest percentage of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. In 2008, the United States emitted 6.9 billion tons of CO_2e, with transportation accounting for the highest percentage of GHG emissions, approximately 32 percent (USEPA 2011).
- **State of California Emissions**—In 2004, California emitted approximately 483 million tons of CO_2e, or about 6 percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per-capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states. In 2008, California's GHG emissions were approximately 478 million metric tons CO_2e, generally attributed to the reduced travel, and therefore, transportation emissions (USEPA 2010).
  - The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the state's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as "other," which includes residential and commercial activities (CEC 2007).

Various aspects of constructing, operating, and eventually discontinuing (demolition and disposal of waste) the use of industrial, commercial, and residential development will result in GHG emissions. Operational GHG emissions result from energy use associated with heating, lighting, and powering buildings (typically through natural gas and electricity consumption), pumping and processing water (which consumes electricity), as well as fuel used for transportation and decomposition of waste associated with building occupants. New development can also create GHG emissions in its construction and demolition phases in connection with the use of fuels in construction equipment, creation and decomposition of building materials, vegetation clearing, and other activities. However, it is noted that new development does not necessarily create entirely new GHG emissions. Occupants of new buildings are often relocating and shifting their operational-phase emissions from other locations.

Regulatory Framework

Federal

U.S. Environmental Protection Agency

The USEPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

Federal Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, USEPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-61), which required USEPA to develop "mandatory reporting of greenhouse gasses above appropriate thresholds in all sectors of the economy …" The Reporting Rule would apply to most entities that emit 25,000 MT CO_2e or more per year. Starting in 2010, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for USEPA to verify annual GHG emissions reports.

USEPA Endangerment and Cause and Contribute Findings

On December 7, 2009, USEPA signed the Endangerment and Cause or Contribute Findings for GHGs under Clean Air Act (CAA) Section 202(a). Under the Endangerment Finding, USEPA finds that the current and projected concentrations of the six key well-mixed GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF_6), 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 CO_2e per year. In addition new sources that are not regulated under the CAA for other air pollutants, but have a PTE of at least 100,000 MT CO_2e 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 CO_2e. 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 CEC are jointly responsible for implementing the program. SB 2 (2011) set forth a longer-range target of procuring 33 percent of retail sales by 2020.

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

Executive Order S-01-07 mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and (2) that an LCFS for transportation fuels be established in California. The executive order initiated a research and regulatory process at California ARB. California ARB developed the LCFS regulation pursuant to the authority under AB 32 and adopted it in 2009. In late 2011, a federal judge issued a preliminary injunction blocking enforcement of the LCFS, ruling that the LCFS violates the interstate commerce clause (Georgetown Climate Center 2012). The injunction was lifted in April 2012 so that California ARB can continue enforcing the LCFS pending California ARB's appeal of the federal district court ruling.

State Bill 375

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

Senate Bill 97

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

Executive Order S-13-08

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

California Code of Regulations (CCR) Title 24

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) (Title 24), were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions. The 2008 standards are the most recent version which went into effect in January 1, 2010.

CCR Title 24, Part 11 (California's Green Building Standard Code) (CALGreen), was adopted in 2010 and went into effect January 1, 2011. CALGreen is the first statewide mandatory green building code and

significantly raises the minimum environmental standards for construction of new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water conservation, and require construction waste recycling.

Greenhouse Gas Cap-and-Trade Program

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

Regional

Southern California Association of Governments (SCAG)

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

Regional Comprehensive Plan

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

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

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

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

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 RTP and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other 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

Town of Yucca Valley General Plan

In preparing the Town of Yucca Valley General Plan, the Town placed special attention on incorporating and identifying goals and policies that encourage and will provide a sustainable environment for the community. In addition, the Town also focused on developing goals and implementation policies that provide for adaptability to a changing natural environment. A complete listing of these policies is provided in Section 4.21.0 (Introduction to the Analysis).

Land Use Element

Policy 5 Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office and residential uses.

Policy 6 Encourage in-fill development on subdivided lands localized adjacent to existing residential areas and utilities to maximize the efficient utilization of land and infrastructure.

Circulation Element

Policy 5 Encourage expansion of ridership and the mass transit system operated by the Morongo Basin Transit Authority with the Town and greater Morongo Basin.

Policy 6 As a means of reducing traffic associated with work-related out-mitigation, make every reasonable effort to achieve a jobs/housing balance in the community.

Policy 7 Promote the use of multi-occupant modes of transportation and the shifting of employment-related trips out of current peak traffic periods.

Policy 8 Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Housing Element

Policy 6 Ensure that new housing projects are designed in an energy efficient manner.

Policy 7 Residential development in the Town of Yucca Valley will preserve and protect as much as possible, the desert flora and fauna.

Policy 12 High density, affordable and senior projects shall be located with convenient access to shopping, public transit, and school and park facilities.

Parks Recreation and Trails Element

Policy 1 Incorporate a multi-user trail system into the Parks and Trails Master plan, which will link many parklands and open space destinations.

Policy 4 Plan, coordinate and cooperate with local utility purveyors, County Flood Control Districts and other appropriate parties to include the development of a multi-use trail system within easements and rights-of-way to the greatest extent possible.

Policy 5 Review new residential developments for their potential to incorporate appropriate pedestrian, equestrian, and bicycle trail connections to the Town-wide recreational system.

Community Design Element

Policy 6 Require the use of Specific Plans to implement the "Mixed Use" land use designation, which may include an integrated mix of commercial, residential, institutional, and professional office uses.

Biological Resources Element

Policy 8 Developers and others required to submit landscape plans to the Town for approval shall be required to use native and approved, non-native, drought tolerant plant species which provide or enhance wildlife habitats and serve to extend the local desert environment into the urban design of the Town.

Water Resources Element

Policy 1 Require the use of low water consuming, drought resistant landscape planting as a means of reducing water demand, and shall coordinate with the Hi-Desert Water District to establish a strong education/public relations program to inform residents of a wide range of water saving techniques.

Air Quality Element

Policy 4 Pursue programs which reduce emission by creating a land use pattern which can be efficiently served by a diversified transportation system and which minimizes vehicle miles traveled.

Open Space, Mineral, Energy and Conservation Element (Open Space and Conservation policies)

Policy 1 With the approval of the local utilities and service providers and County Transportation/Flood Control Department, shall maximize the use of flood control and utility easement areas to develop a multi-user trail system providing alternative transportation links to parks and open space areas.

Open Space, Mineral, Energy and Conservation Element (Energy Resources Policies)

Policy 1 Develop and implement long-term conservation policies and standards.

Policy 2 Support efforts to develop alternative energy technologies which have minimum adverse impacts on the environment.

Policy 3 Promote energy conservation in public buildings and vehicles, to include a program of incentives to encourage the use of innovative methods of conserving energy.

Policy 4 Provide for the protection and access to existing energy resources, and the development and utilization of these resources.

Policy 5 Promote the use of alternative energy sources through the informing of Town residents and available alternative energy programs and rebates.

Policy 6 Promote the use of ride-sharing and mass transit as a means of reducing transportation related energy demand.

Public Buildings, Facilities, and Utilities Element

Policy 6 Implement AB 939 through the Source Reduction and Recycling Element (SRRE) and make every effort to reduce 25% of its solid waste by 1995, and 50% by year 2000.

As part of the preparation for the Regional Reduction Plan, the Town of Yucca Valley selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020. This is the Reduction Target for the Town. To fulfill this commitment the Town is participating in this Regional Reduction Plan. Additional details of the Town's portion of the Regional Reduction Plan are provided in Section 4.21.0 of this EIR and the Yucca Valley chapter of the Regional Reduction Plan.

Project Impact Evaluation

Thresholds of Significance

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

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

Analytic Method

The impact analysis for the Regional Reduction Plan is based on a GHG emissions analysis, which is presented in the environmental analysis, below. The Regional Reduction Plan document includes community-wide GHG emissions inventories for the Town of Yucca Valley 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 Town is to reduce the GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020.

The 2020 BAU scenario represents the forecasted emissions for the Town 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 Yucca Valley's emissions to levels at or below the reduction target. The methodology and assumptions used in this analysis are detailed in Appendices A and B of the Regional Reduction Plan. Also refer to the Regional Reduction Plan (included in Appendix B of this EIR) for model inputs and sources, model output and detailed calculations. A summary of the Regional Reduction Plan methodology is provided below.

The emissions and emissions reduction calculations performed for the Regional Reduction Plan followed guidance provided by 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 CO_2e is used to report a combined impact from all of the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential, and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions in this analysis are measured in terms of MT CO_2e.

Note that some stationary sources within the Town are permitted under Title V of the CAA. 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 Town cannot change in any way the industrial process and BACT emission reduction devises on these permitted sources. Because the Town 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 Town 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 Town of Yucca Valley totaled 16,719 MT CO_2e 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?

Implementation of the Regional Reduction Plan in the Town of Yucca Valley would result in the reduction of GHG emissions over the long term, which would be a beneficial effect. Area source reduction strategies such as energy efficient buildings and solar installation would reduce GHG emissions. Construction activities, such as building energy retrofits and grading or excavation activities, if required, for installation of energy-generating structures, would result in temporary, short-term emissions of GHGs. These temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits and renewable energy projects that are part of the reduction measures in the CAP that would result in an overall reduction in GHG emissions.

Table 4.21.7-2 (GHG Emission Inventories and Reductions in the Town of Yucca Valley) quantitatively shows the reductions of GHG emissions in 2020 that result would result from implementation of the

Regional Reduction Plan in the Town of Yucca Valley and compares the reduced emissions with the Town Reduction Target.

The reduction measures that reduce GHG emissions down to levels below the Reduction Target are discussed in Section 4.21.0 of this EIR. Regional Reduction Plan Chapter 4 has additional details of these reduction measures.

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

Table 4.21.7-2 GHG Emission Inventories and Reductions in the Town of Yucca Valley

Category	*Metric tons of CO_2e*				
Emission Source	2008	2020 BAU	Plan Reductions	2020 with Plan	% Reduction
Energy	53,437	62,236	14,451	47,785	23.20%
On-Road Transportation	71,120	80,427	21,272	59,155	26.40%
Off-road Equipment	6,680	7,419	663	6,757	8.90%
Wastewater Treatment	10,992	12,359	8,172	4,187	66.10%
Water Conveyance	0	0	0	0	0.00%
Solid Waste	4,138	1,522	18	1,504	1.20%
Agriculture	1,677	2,231	30	2,201	1.30%
GHG Performance Standard for New Development[a]			1,852		
Total	***148,044***	***166,197***	***46,457***	***119,737***	***28.00%***
Reduction Target			**40,357**	**125,838**	**24.30%**
Does the Plan Meet the Reduction Target?			yes	yes	yes
Reductions Beyond Target			***6,100***		
Excluded Stationary Sources under Title V Permits[b]	7.20	7.20		5.20	

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 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?

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 4.21.7-2 summarizes the 2008 GHG emissions for the Town. The emissions in 2008 totaled 148,044 MT CO_2e. The largest source of emissions was transportation, followed by energy use.

The 2020 BAU emissions inventory for the Town was estimated in the Regional Reduction Plan using the Town of Yucca Valley General Plan and SCAG growth rates for the Town from 2008 to the year 2020. The BAU inventory represents the projected Town emissions without the incorporation of recently adopted sustainability measures or reduction measures included in the proposed project. Table 4.21.7-2 summarizes the 2020 BAU emissions inventory. The emissions are an estimated at 166,197 MT CO_2e, an increase of 18,153 MT CO_2e (or 10.92 percent) from the 2008 baseline. Similar to the 2008 inventory, the largest source of emissions is predicted to be transportation followed by emissions associated with energy use. The difference between the BAU-forecasted emissions and the established reduction target for the year 2020 is 125,838 MT CO_2e. This is the amount the Town must reduce in order to reach their target. Implementation of the Regional Reduction Plan reduces 119,737 MT CO_2e of emissions in 2020 which exceeds the reduction goal by approximately 6,100 MT CO_2e. This is a reduction of approximately 28.0 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 state-wide plan for the reduction of GHG emissions. The Regional Reduction Plan complements the statewide efforts of the Scoping Plan by building upon the reduction measures administered by the State. For example, the Regional Reduction Plan Reduction Measure Energy-1 (Energy Efficiency for Existing Buildings) implements the energy efficiency retrofits contemplated in the Scoping Plan. Solar installation for new and existing housing and commercial buildings shown in the reduction measures of the Regional Reduction Plan, provide additional renewable energy sources beyond what was contemplated in the AB 32 Scoping Plan. All of the reduction measures in the Yucca Valley 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 4.21.0 of this EIR and are described in further detail in Chapter 4 of the Regional Reduction Plan.

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

Circulation Element Policies

Policy 5 Encourage expansion of ridership and the mass transit system operated by the Morongo Basin Transit Authority with the Town and greater Morongo Basin.

Policy 6 As a means of reducing traffic associated with work-related out-mitigation, make every reasonable effort to achieve a jobs/housing balance in the community.

Policy 7 Promote the use of multi-occupant modes of transportation and the shifting of employment-related trips out of current peak traffic periods.

Policy 8 Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Parks Recreation and Trails Element

Policy 1 Incorporate a multi-user trail system into the Parks and Trails Master plan, which will link many parklands and open space destinations.

Policy 4 Plan, coordinate and cooperate with local utility purveyors, County Flood Control Districts and other appropriate parties to include the development of a multi-use trail system within easements and rights-of-way to the greatest extent possible.

Policy 5 Review new residential developments for their potential to incorporate appropriate pedestrian, equestrian, and bicycle trail connections to the Town-wide recreational system.

Air Quality Element

Policy 4 Pursue programs which reduce emission by creating a land use pattern which can be efficiently served by a diversified transportation system and which minimizes vehicle miles traveled.

Open Space, Mineral, Energy and Conservation Element (Open Space and Conservation Policies)

Policy 3 With the approval of the local utilities and service providers and County Transportation/Flood Control Department, shall maximize the use of flood control and utility easement areas to develop a multi-user trail system providing alternative transportation links to parks and open space areas.

The Open Space, Mineral, Energy and Conservation Element (Energy Resources Policies)

Policy 6 Promote the use of ride-sharing and mass transit as a means of reducing transportation related energy demand.

The regional GHG reduction target for SCAG is 8 percent by 2020 and 13 percent by 2035, compared to 2005 GHG emissions on a per capita basis. As shown in Table 4.21.7-2, the Regional Reduction Plan would reduce Yucca Valley transportation emissions in 2020 by 26.4 percent compared to 2008 GHG emissions. Therefore, the Town's General Plan and the statewide and county reduction measures in the Regional Reduction Plan provide the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Yucca Valley. Therefore, this impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

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

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4.21.8 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 Town of Yucca Valley from implementation of the Regional Reduction Plan. Geologic and flood hazards are addressed separately in Section 4.21.6 (Geology/Soils) and Section 4.21.9 (Hydrology/Water Quality), respectively. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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.

According to the Yucca Valley General Plan Safety Element, there are a relatively small number of facilities that use or store hazardous materials in the Town. Also, there are not any registered transporters of hazardous materials in Yucca Valley; however, State Routes 62 and 247 are both permitted for the transportation of hazardous materials. Therefore, spills and leakage from trucks transporting hazardous materials is monitored by the California Highway Patrol, Caltrans, the San Bernardino County Fire Department—Hazardous Materials Division, and local sheriffs.

Airport Hazards

Yucca Valley Airport is a privately owned, long term leased to Yucca Valley Airport District, public use airport that is classified in the National Plan of Integrated Airport Systems as a general aviation, basic utility facility. The airport is situated in the High Desert area of San Bernardino County, 3224 feet above sea level, and serves several of the surrounding small communities, as well as the Joshua Tree National Park with general aviation air service. Yucca Valley Airport is open to the general public and to visiting aircraft 24 hours a day. Yucca Valley Airport does not have any commercial passenger services; it does provide services such as aircraft maintenance and flight training.

Wildland Fire Hazards

Wildland fires pose a significant threat to large areas of Yucca Valley mostly in the west-northwest and south parts of town. A combination of factors including weather, topography and vegetation put these areas at a high risk for wildland fires. Although wildland fires are more often considered disruptive and dangerous, they are a necessary part of the ecosystem. A wildland fire becomes a hazard when it grows out of control. When this happens damage and loss of property and sometimes loss of life are potential risks.

Wildland fires have been and will continue to be a threat to the Town. The California Department of Forestry and Fire Protection identified the hillside areas of Yucca Valley as having a high to very high fire threat as shown in Figure 4.21.8-1 (Fire Hazards Areas). The Town is part of the list of Communities at Risk, a federally funded program administered by the California Fire Alliance. As a designated at risk community, Yucca Valley has the opportunity to apply for these resources and reduce fire risks (Yucca Valley 2012).

Regulatory Framework

There are many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. 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

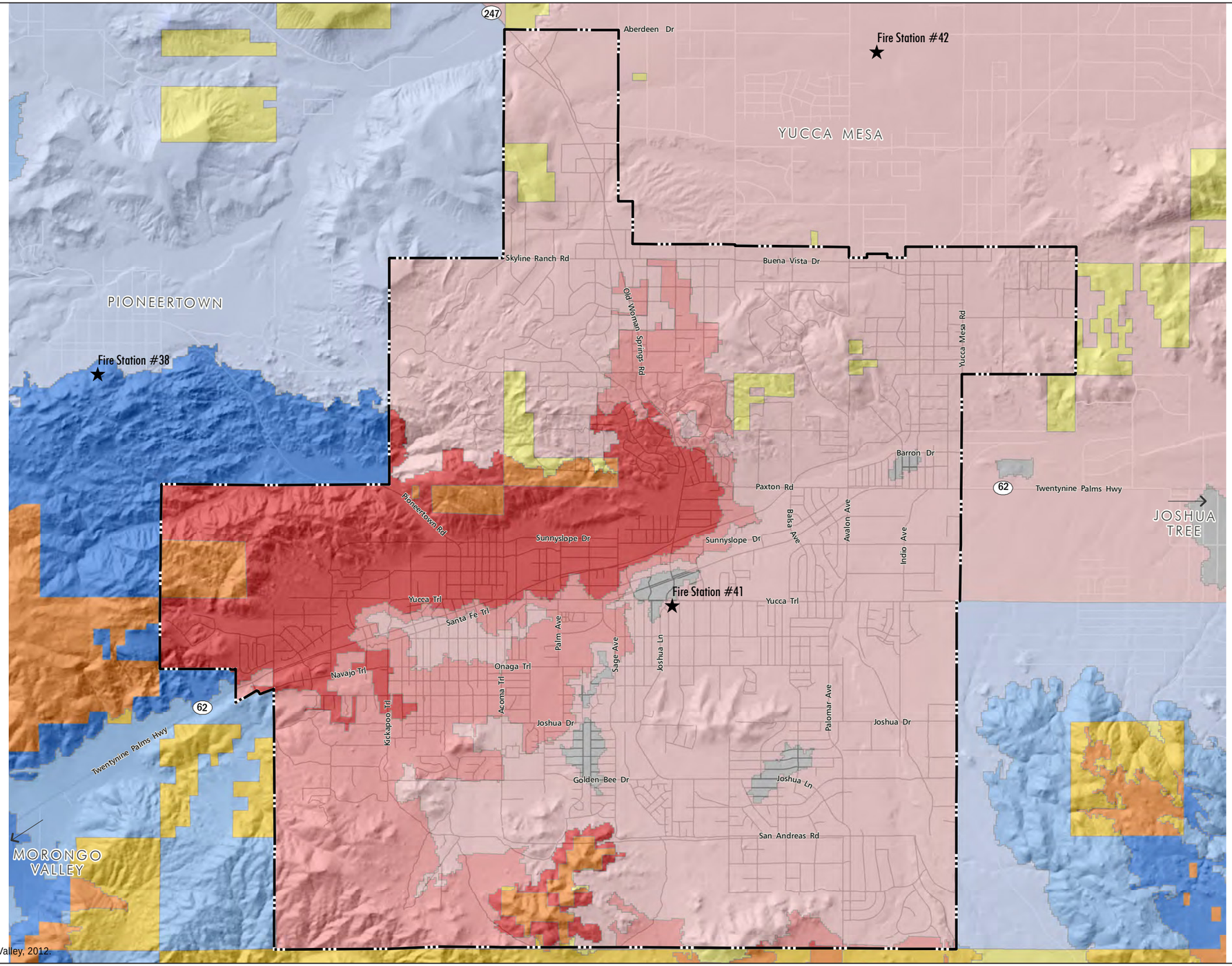
Hazardous Materials and Hazardous Waste

United States Environmental Protection Agency (USEPA)

The USEPA is the primary federal agency that regulates hazardous materials and waste. In general, the USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency 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. USEPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the RCRA and in cooperation with state and tribal partners, the Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program that includes development of waste reduction strategies such as recycling.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act of 1976 (RCRA) is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. Treatment is any process that changes the physical, chemical, or biological character of the waste to reduce its potential as an environmental threat.



***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.8-1
Fire Hazards Areas

ATKINS

Treatment can include neutralizing the waste, recovering energy or material resources from the waste, rendering the waste less hazardous, or making the waste safer to transport, dispose of, or store.

The RCRA gave the USEPA the authority to control hazardous waste from "cradle to grave," that is, from generation to transportation, treatment, storage, and disposal. The RCRA also set forth a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled the USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that RCRA focuses only on active and future facilities and does not address abandoned or historical sites. The federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that required phasing out land disposal of hazardous waste. Some of the other mandates of this strict law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 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. This federal law created a tax on the chemical and petroleum industries that went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List (NPL) of sites, which are known as Superfund sites. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Superfund Amendments and Reauthorization Act

SARA reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. SARA Title III also authorized the Emergency Planning and Community Right-to-Know Act.

Emergency Planning and Community Right-to-Know Act

EPCRA was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on-site to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies. EPCRA Section 3131 requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals; report off-site transfers of waste for treatment or disposal at separate facilities; pollution prevention measures and activities; and participate in chemical recycling. These annual reports are submitted to the USEPA and state agencies. The USEPA

maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory (TRI), and was expanded by the Pollution Prevention Act of 1990.

To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC) to coordinate planning and implementation activities associated with hazardous materials. The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. In California, the SERC oversees six LEPCs throughout the state. The Governor's Office of Emergency Services (OES) coordinates and provides staff support for the SERC and LEPCs. Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of that may pose an environmental or human health hazard. It can ban the manufacture and import of those chemicals that pose an unreasonable risk. Also, the USEPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the TRI under EPCRA.

Airport Hazards

Federal Aviation Administration (FAA)

The basic responsibilities of the Federal Aviation Administration (FAA), under the US Department of Transportation, are the regulation of civil aviation to promote safety, airspace and air traffic management, and the regulation of commercial space transportation. CFR contains standards for aircraft noise emission levels.

Fire Hazards

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including fire and acts of terror. The U.S. Fire Administration, a department within FEMA, is the lead Federal agency for fire data collection, public fire education, fire research and Fire Service training.

State

Hazardous Materials and Hazardous Waste

California Department of Toxic Substances Control

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 to protect people from exposure to hazardous wastes. The department 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). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. San Bernardino County is in DTSC's Southern California region.

DTSC cleans up or oversees approximately 220 hazardous substance release sites at any given time and completes an average of 125 cleanups each year. An additional 250 sites are listed on DTSC's EnviroStor database of properties that may be contaminated. DTSC also maintains a Site Mitigation and Brownfields Reuse Program Database.

Under the DTSC, the Statewide Compliance Division (SCD) administers the technical implementation of the state's Unified Program, a consolidation of six environmental programs at the local level. This program was established under the amendments to the California Health and Safety Code made by Senate Bill 1082 in 1994. The six programs that make up the Unified Program are:

- Hazardous Materials Business Plan/Emergency Response Plan
- Hazardous Waste/Tiered Permitting
- Underground Storage Tanks
- Aboveground Storage Tanks Spill Prevention Control and Countermeasures
- California Accidental Release Prevention Program (CalARP)
- Uniform Fire Code Hazardous Materials Management Plan

The SCD also conducts triennial reviews of Unified Program agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. SCD also carries out the inspections, enforcement, and complaint response at the state's hazardous waste generators, facilities, and transporters and oversees the hazardous waste generator and on-site waste treatment surveillance and enforcement program carried out by local Unified Programs.

Hazardous Material Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notification is required for all significant releases of hazardous

materials. Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. Many state statutes require emergency notification of a hazardous chemical release:

- Health and Safety Codes Sections 25270.7, 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5(a)
- Water Code Sections 13271, 13272
- California Labor Code Section 6409.1(b)10

In addition, all releases that result in injuries or workers harmfully exposed must be immediately reported to California Occupational Safety and Health Administration (California Labor Code Section 6409.1(b)). For additional reporting requirements, also refer to the Safe Drinking Water and Toxic Enforcement Act of 1986, better known as Proposition 65, and California Labor Code Section 9030.

Airport Hazards

California Department of Transportation

California Department of Transportation, Division of Aeronautics, is responsible for airport safety in California. The State Aeronautics Act, Public Utilities Code (PUC) Sections 21001 et seq., is the foundation for the Department's aviation policies. The Aeronautics Division issues permits for and annually inspects hospital heliports and public-use airports; makes recommendations regarding proposed school sites within two miles of an airport runway; and authorizes helicopter landing sites at or near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen aircraft noise, air pollution, and other impacts caused by aviation. The Division of Aeronautics publishes the California Airport Land Use Commission (ALUC) Planning Handbook. The California ALUC Planning Handbook provides planning guidance to ALUCs and counties and cities with jurisdiction over airport area land uses. The purpose of the handbook is to support the State Aeronautics Act. The handbook allows jurisdictions flexibility in determining air safety zones that represent areas of assumed accident potential.

Fire Hazards

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CALFIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports the CDF mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The OSFM provides for fire prevention by enforcing fire-related laws in state- owned or -operated buildings, investigating arson fires

in California, licensing those who inspect and service fire protection systems, approving fireworks as safe and sane for use in California, regulating the use of chemical flame retardants, evaluating building materials against fire safety standards, regulating hazardous liquid pipelines, and tracking incident statistics for local and state government emergency response agencies.

California Uniform Fire Code

CCR Title 24, Part 9, is based on the 2000 Uniform Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code contains fire safety-related building standards that are referenced in other parts of CCR Title 24.

California Fire Plan

The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CALFIRE.

Regional

Hazardous Materials and Hazardous Waste

Certified Unified Program Agency (CUPA) is a regional or local agency that has been certified by Cal/EPA to implement the local Unified Program. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by Cal/EPA to become a CUPA but is the responsible local agency that would implement the six Unified Programs until they are certified.

The Unified Program is related to the state SERCs and LEPCs that were established under both federal (EPCRA) and state authority relative to the Hazardous Materials Business Plan/Emergency Response Plan. While the CUPA structure does not specifically incorporate the SERC and LEPCs, both SERC and CUPA have found it beneficial to establish strong communication and coordination on hazardous materials issues. The CUPA board now has a representative on the SERC, and members of LEPCs are also CUPA board members. Common issues include ensuring that hazardous materials, waste, and tank programs maintain strong coordination and communication for maximum consistency in program implementation. Shared data, joint resources, common forms, provision of emergency information, and regulatory review are other interests that are coordinated by the CUPA Board and SERC/LEPCs.

San Bernardino County is a member of the Southern California Hazardous Waste Management Authority, and works on regional level to solve hazardous waste problems. The San Bernardino County Fire Department, Hazardous Materials Division (HMD) is designated by the state as the CUPA for the County of San Bernardino. The fire department focuses on the management of specific environmental programs at the local government level to address the disposal, handling, processing, storage, and treatment of local hazardous materials and waste products. The CUPAs are also responsible for implementing the leak prevention element of the Underground Storage Tank (UST) Program.

UST Program. Releases of petroleum and other products from USTs are the leading source of groundwater contamination in the United States. RCRA Subtitle I established regulations governing the storage of petroleum products and hazardous substances in USTs and the prevention and cleanup of leaks. In USEPA Region 9 (California, Arizona, Hawaii, Nevada, Pacific Islands, and over 140 tribal nations), the UST program operates primarily through state agency programs with USEPA oversight.

In California, the State Water Resources Control Board (SWRCB), under the umbrella of Cal/EPA, provides assistance to local agencies enforcing UST requirements. The purpose of the UST program is to protect public health and safety and the environment from releases of petroleum and other hazardous substances. The program consists of four elements: leak prevention, cleanup, enforcement, and tank tester licensing. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs, including groundwater analytical data, the surveyed locations of monitoring wells, and other data. The SWRCB's Geotracker system currently has information submitted by responsible parties for over 10,000 leaking UST (LUST) sites statewide and has been extended to include all SWRCB groundwater cleanup programs including the LUST, non-LUST (Spill, Leaks, Investigation, and Cleanup), Department of Defense, and landfill programs.

The San Bernardino County Fire Department HMD is charged with the responsibility of conducting compliance inspections of regulated facilities in San Bernardino County. Regulated facilities are those that handle hazardous materials, generate or treat hazardous waste, and/or operate an underground storage tank. All new installations of underground storage tanks require an inspection, along with the removal, under strict chain-of-custody protocol, of the old tanks.

County of San Bernardino Hazardous Waste Management Plan

Assembly Bill 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorized counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous wastes. The County of San Bernardino HWMP was adopted by the County of San Bernardino Board of Supervisors and approved by the California Department of Health Services in February 1990. The County HWMP serves as the primary planning document for the management of hazardous waste in San Bernardino County. It identifies the types and amounts of wastes generated in the county; establishes programs for managing these wastes; identifies an application review process for the siting of specified hazardous waste facilities; identifies mechanisms for reducing the amount of waste generated in the county; and identifies goals, policies, and actions for achieving effective hazardous waste management. Hazardous materials and waste are managed by the San Bernardino County Fire Department HMD. As further required by the state, all cities in San Bernardino County must also adopt a HWMP.

Hazardous Materials Disclosure Programs

All businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, are required to submit a Hazardous Materials Business Plan to its local CUPA.

According to the San Bernardino County Fire Department HMD guidelines, the preparation, submittal, and implementation of a business plan is required by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than, those outlined below:

- Any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time in the course of a year
- All hazardous waste generators, regardless of quantity generated; any business that handles, stores, or uses Category I or II pesticides, as defined by the federal Insecticide, Fungicide, and Rodenticide Act, regardless of amount
- Any business that handles DOT Hazard Class 1 (explosives, found in 49 CFR), regardless of amount
- Any business that handles extremely hazardous substances in quantities exceeding the threshold planning quantity; extremely hazardous substances are designated pursuant to the EPCRA Section 302, and are listed in 40 CFR Part 355
- Any business subject to the EPCRA, also known as SARA Title III; generally EPCRA includes facilities that handle hazardous substances above 10,000 pounds or extremely hazardous substances above threshold planning quantities; there are some exceptions, including retail gas stations with up to 75,000 gallons of gasoline or 100,000 gallons of diesel fuel in USTs that meet the 1998 upgrade requirements
- Any business that handles radioactive material that is listed in Appendix B of Chapter 1 of 10 CFR.

Businesses are required to update their business plan with the San Bernardino County Fire Department HMD annually. The entire plan must be reviewed and recertified every three years. In addition, the plan must be revised within 30 days of change of owner, business address, business name, emergency contact information, inventory, or other site conditions that may significantly impact emergency response.

Hazardous Materials Incident Response

Under Title III of SARA, the LEPC is responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community. This emergency plan must include:

- An identification of local facilities and transportation routes where hazardous material are present
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan)
- A plan for notifying the community that an incident has occurred
- The names of response coordinators at local facilities
- A plan for conducting exercises to test the plan

The plan is reviewed by the SERC and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The San Bernardino County Fire Department HMD is responsible for coordinating hazardous material coordination and inspection in the Town.

Airport Hazards

San Bernardino County

San Bernardino County opted for an alternative to the ALUC and delegated responsibility to prepare an Airport Land Use Compatibility Plan for each airport jurisdiction. Other public agencies also provide policy guidance or promulgate standards that address regional transportation and safety issues related to airport land use compatibility planning. A land use compatibility assessments has been prepared for the Yucca Valley Airport.

Fire Hazards

San Bernardino County Fire Department

The San Bernardino County Fire Department provides fire protection services to the Town of Yucca Valley. The San Bernardino County Fire Department is a full service, regional fire and emergency medical service agency; however, the department has numerous automatic and mutual aid agreements with local, state and federal jurisdictions for use and assignment of resources in the event of major emergencies.

San Bernardino County Office of Emergency Services (OES)

The OES is also a division of the San Bernardino County Fire Department and is responsible for broad disaster planning and emergency services coordination throughout the county, including the Town of Yucca Valley. OES looks broadly at emergency responses to wildfires, earthquakes, or other disasters affecting the region. The goal of the OES is to improve public and private sector readiness, and to mitigate local impacts resulting from natural or man-made emergencies through disaster preparedness planning and appropriate response efforts with the Town departments and local and state agencies. While OES does not directly manage field operations, it manages an Incident Command Post to ensure coordination of disaster response and recovery efforts through its day-to-day program management and during an incident/disaster. The division also manages and operates the Emergency Operations Center (EOC), which is the primary coordination point for disasters and major emergencies. In the event of a disaster or an incident requiring complex coordination, preselected and trained responders report to the San Bernardino County Operational Area EOC. The 100-plus responders have been trained to perform specific functions designated under the Standardized Emergency Management System to coordinate emergency management of disasters. These responders are available 24 hours a day 7 days a week. OES conducts annual exercises in the EOC to test the readiness of various types of disasters and large-scale emergencies.

The OES is also responsible for the countywide Emergency Management Plan (EMP), which is currently under revision. The plan identifies hazards and response, roles and responsibilities, and other key activities of government during a disaster. The office also maintains copies of the EMPs for the 24 cities/towns in the operational area. The OES assists county unincorporated communities and residents by assigning an OES Officer to assist in meeting their local planning goals and needs. These mostly isolated areas of the county may have the need for special considerations in a disaster.

Local

Hazardous Materials and Hazardous Waste

Town of Yucca Valley Municipal Code

Section 6.02.140 (Hazardous Wastes) is established in order to regulate the disposal, storage, generation transfer, treatment, handling and transportation of hazardous waste, materials and substances. The Code also provides specific requirements applicable to the siting or expansion of a hazardous waste facility in order to safeguard life, health, property and the public welfare.

Town of Yucca Valley General Plan

The Yucca Valley General Plan Safety Element hearing draft contains the following policies related to hazardous materials and waste[9] (Yucca Valley 2012):

Policy S6-1 Collaborate with the county of San Bernardino and other appropriate agencies to facilitate the safe and immediate clean-up of all hazardous waste sites and to provide safe facilities for disposal in accordance with applicable federal, state, and local regulations.

Policy S6-2 In conjunction with the San Bernardino County Fire Department, review and monitor potentially hazardous materials associated with industrial uses.

Policy S6-3 Encourage business to utilize practices and technologies that will reduce the generation of hazardous waste.

Policy S6-4 Promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling and storage of hazardous materials.

Policy S6-5 Cooperate with the state and gasoline station owners and operators in monitoring the conditions of subsurface tanks.

Policy S6-6 Maintain an inventory of hazardous materials and their location in Town.

Policy S6-7 Maintain a protocol for communicating with responsible agencies, and coordinate efforts to assure that state and federal regulations for the testing and monitoring of leaking underground fuel storage tanks are enforced.

Policy S6-8 Cooperate with regulators and encourage the enforcement of laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify such materials, and notify the appropriate county, state and/or federal agencies as required by law.

Policy S6-9 Require all business that use, store or produce hazardous materials to comply with the County Fire Department's Business Plan requirements.

Policy S6-10 Coordinate with the San Bernardino County Fire Department and the County Environmental Health Department to assure improved response to, and capability for, handling hazardous materials incidents.

[9] This is 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.

Fire Hazards

Town of Yucca Valley Municipal Code

Section 6.02.140 (Hazardous Wastes) is established in order to regulate the disposal, storage, generation transfer, treatment, handling and transportation of hazardous waste, materials and substances. The Code also provides specific requirements applicable to the siting or expansion of a hazardous waste facility in order to safeguard life, health, property and the public welfare.

Town of Yucca Valley General Plan

The Yucca Valley General Plan Safety Element hearing draft contains the following policies related to fire hazards[10] (Yucca Valley 2012):

Policy S4-1 Require property owners adjacent to wildland fire areas to maintain a defensible space around structures consistent with San Bernardino County Fire Department standards.

Policy S4-2 Continue public education efforts to inform the community of wildland fire hazards and ways to minimize the damage caused by fires.

Policy S4-3 Ensure that public and private water distribution and supply facilities have adequate capacity and reliability (peakload water supply) to supply both every day and emergency firefighting needs.

Policy S4-4 Continue long-range wildland fire safety planning including enforcement and updates to the Municipal Code, improved infrastructure, and partnerships with other public agencies and the private sector.

Policy S4-5 Update the Fire Hazard Areas map as development changes.

Policy S4-6 Enforce fire standards and regulations in accordance with the California Building Code, Town Municipal Code for building and landscaping, and the San Bernardino County Fire Department regulations for all new development.

Airport Hazards

Yucca Valley Airport Comprehensive Land Use Plan

An Airport Comprehensive Land Use Plan calls for land use laws which are intended to protect public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses. The Airport Comprehensive Land Use Plan for Yucca Valley Airport, prepared by the San Bernardino County Planning Department in 1992, has been prepared to comply with State planning law and it is the primary land use document for the study area. Its purpose is to promote the development of compatible land uses in the area influenced by airport operations; to safeguard the general welfare of the inhabitants within the vicinity of the airport by minimizing exposure to excessive noise levels; to safeguard the general welfare of the inhabitants within the vicinity of the airport by minimizing exposure to crash

[10] This is 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.

hazards associated with aircraft operations; and to safeguard the general welfare of aviation activities within the vicinity of the airport by imposing appropriate height restrictions for the protection of aircraft operations.

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 Town 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?

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, Town ordinances, and the Yucca Valley 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?

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 Yucca Valley 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?

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

Threshold	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Regional Reduction Plan does not propose siting reduction measures at particular locations. Siting of renewable energy generation is reviewed by the Town 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?

It is the policy of the Town of Yucca Valley to consult the adopted Airport Comprehensive Land Use Plan for any development near the airport to ensure that proposed land uses within the airport safety zones are consistent with the adopted plans for the airport. The Town's 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?

The Yucca Valley Airport is a privately owned airport, long term leased to Yucca Valley Airport District. 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 Town to ensure that placement of these types of facilities near a private airstrip or heliport would not create a safety hazard. Additionally, developments near the airport would have to comply with the Yucca Valley Airport Comprehensive Land Use Plan to ensure that implementation of these types of uses near airports does not result in safety hazards to people in the area. Therefore, 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?

Emergency response plans have been prepared at the regional and local level. There are numerous evacuation routes within the Town. None of the reduction measures selected by Yucca Valley 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?

Wildland fires have historically occurred particularly during summer months when temperatures exceed 100 degrees Fahrenheit and precipitation is almost nonexistent. None of the reduction measures that could be implemented by Yucca Valley would involve the construction or operation of structures or development of new occupied uses that would be vulnerable to wildland fire hazard. Additionally, compliance with the General Plan Policies S4-1 through S4-6 ensures that developments meet federal, regional, and local fire standards. 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

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

San Bernardino County Planning Department. 1992. *Airport Comprehensive Land Use Plan Yucca Valley*, February.

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

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4.21.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality, including flood hazards, in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), and the Technical Background Report to the Safety Element of the Yucca Valley General Plan (2012). Full reference-list entries for all cited materials are provided at the end of this section.

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

Environmental Setting

Regional Drainage

Yucca Valley's main drainage course is the Yucca Wash, which is located within the larger Colorado River Basin Region. Other active natural drainages in the Town include the Water Canyon, Covington Wash, West Burnt Mountain Creek, East Burnt Mountain Creek, and Pipes Wash, shown in Figure 4.21.9-1 (Flood Hazard Map). Drainage channels in the local mountains are well incised; however, they lose their strong definition upon reaching the alluvial plain, where sediment-laden water is carried in shallow washes and by sheet flow. Drainage channels that are dry most of the year can quickly become dangerous torrents of water, sand, mud and rocks, capable of transporting boulders, trees, and even cars (Yucca Valley 2012).

The Town of Yucca Valley is located at the western edge of the Mojave Desert, an arid region with hot summers, cool winters, and infrequent, but potentially violent rainstorms. The southern part of the Town consists largely of a gently sloping alluvial plain shaped by a combination of sediments deposited by floodwaters emerging from canyons in the nearby mountains, and by past flooding of the valley's main drainage course, the Yucca Wash (Yucca Valley 2012).

Local Surface Waters

Yucca Valley has no perennial rivers or streams. When a storm arrives, the normally dry rocky canyons of the adjacent hills and mountains disperse runoff into broad desert washes or onto alluvial fans and plains—all of which are laced with a complex and dynamic drainage network that ultimately terminates in desert playas several miles to the east and northeast of the Town. Drainage Channels that are dry most of the year can quickly become dangerous torrents of water, sand, mud and rocks.

The valley in the southern part of the Town receives runoff from small to very large canyons in the Little San Bernardino Mountains. These canyons disperse floodwaters into numerous washes crossing the valley, including Covington Wash, East and West Burnt Mountain Creeks, Long Canyon, and Hospital Canyon, as well as smaller unnamed drainages—all having the potential to carry flash floods into the most densely populated parts of the Town. Several large drainages emerge from the southern flank of the Sawtooths as well, including Pinon Creek and Water Canyon. Runoff from mountains to the north and

south of the valley is collected in the east-flowing Yucca Wash, the main drainage channel. North of the Sawtooths, stream channels also flow eastward, either passing through the gap between the Sawtooth and Bartlett Mountains to Yucca Wash, or continuing eastward north of the Bartlett Mountains (Yucca Valley 2012).

Groundwater

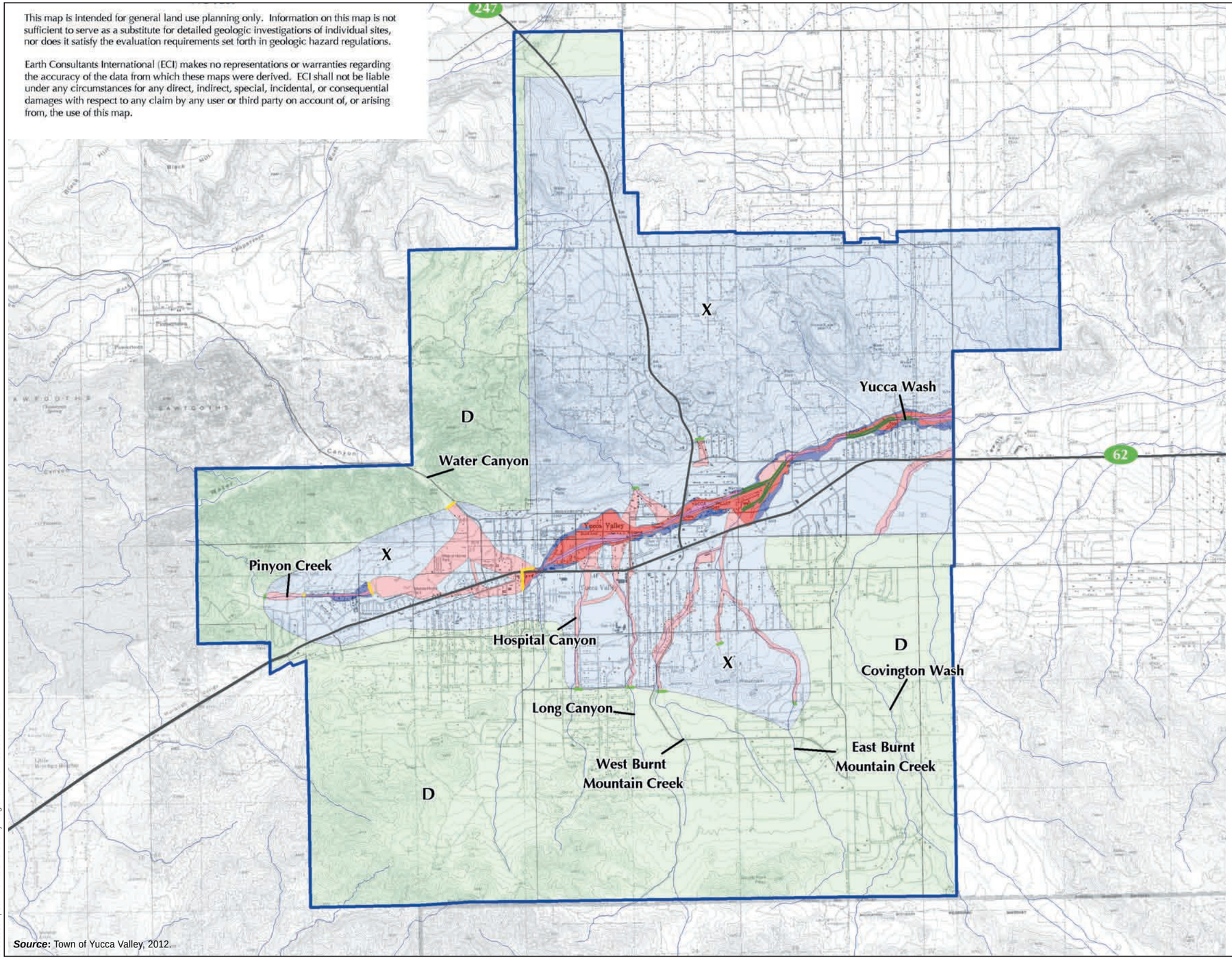
Because surface water is scarce, Yucca Valley, like many other high desert communities, relied entirely on groundwater from the underlying aquifers for their domestic supply. The main sources of Yucca Valley's water supply are wells in the northern part of the Warren Valley Groundwater Basin, which is distributed to the community by the Hi-Desert Water District (HDWD) and lies within the Mojave Water Agency's service boundaries. The Warren Valley Basin covers approximately 26.9 square miles, shown in Figure 4.21.9-2 (Warren Valley Basin Adjudicated Boundary). This basin underlies the Town's alluvial area south of the Pinto Mountain fault zone. The northern boundary of the basin is the Pinto Mountain fault and the southern boundary is the bedrock outcrop of the Little San Bernardino Mountains. The Warren Valley Basin is bounded on the east by a bedrock constriction called the "Yucca barrier" and on the west by a bedrock constriction and a topographic divide between Warren Valley and Morongo Valley. Precipitation in this basin ranges from 8 to 12 inches per year, with an average rainfall across the basin of about 10 inches (Yucca Valley 2012).

The Warren Valley Basin was in a state of overdraft for many years, with water levels in some areas dropping as much as 300 feet between 1940 and 1994. This condition led to a court ruling in 1977 to establish groundwater extraction rights. Since 1995, recharge sites (percolation ponds) located in the Yucca Valley region receive water from the California Aqueduct via the Morongo Basin Pipeline, and water levels in the Warren Valley Basin have recovered significantly. Further, excess imported water can be "banked" in the local aquifer during wet years, thereby increasing the reserves for dry years when local and State Water Project supplies may be limited.

A significant amount of recharge to the Warren Valley Basin is also supplied by irrigation and septic system return flows that percolate back into the ground (Yucca Valley 1995b). There is currently no community wide sewage treatment and disposal system in Yucca Valley. Wastewater is discharged to individual septic tanks and leaching systems. This is thought to contribute to high concentrations of nitrate locally in groundwater wells of the Warren Valley Basin (Yucca Valley 2012). As a consequence, the California Regional Water Quality Control Board—Colorado River Basin Region, has recommended a septic prohibition for parts of Yucca Valley (2010) and adopted the prohibition in the form of an amendment to the Basin Plan for the Colorado River Basin Region (2011). The HDWD has developed a plan for a centralized sewer collection and wastewater treatment facility. Treated water would be returned to Warren Valley Basin aquifer. The HDWD tests water at each of its wells and at numerous locations throughout the distribution system at least twice a year, measuring chemicals such as total dissolved solids and nitrates (Yucca Valley 1995b).

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.

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: Town of Yucca Valley, 2012.

FEMA Flood Insurance Rate Zones

High Risk Areas (Special Flood Hazard Areas)

- **A** — Zone that corresponds to the 100-year flood areas, as determined by approximate methods. Because detailed hydraulic analyses were not performed, no base flood elevations or depths have been determined. Mandatory flood insurance is required.
- **AE** — Zone that corresponds to the 100-year flood areas, as determined by detailed hydraulic analyses. In most cases, base flood elevations are shown at selected intervals.* Mandatory flood insurance is required.
- **AE** — Floodway zone*. Watercourse channel that generally must be kept free of encroachment. Development is subject to special regulations.

Moderate and Low Risk Areas

- **X** — Zone that corresponds to areas between the limits of the 100-year and 500-year floods. No base flood elevations or depths have been determined. Flood insurance is available but not required.
- **X** — Zone that corresponds to areas outside of the 500-year flood or areas protected from the 100-year flood by levees. Flood insurance is available but not required.
- **D** — Zone outside of FEMA Study - flood hazard is undetermined.
- Limit of detailed study.
- Limit of FEMA Study.
- Levee
- Yucca Valley Town Boundary

5000 0 5000

NORTH
SCALE IN FEET

Figure 4.21.9-1
Flood Hazard Map

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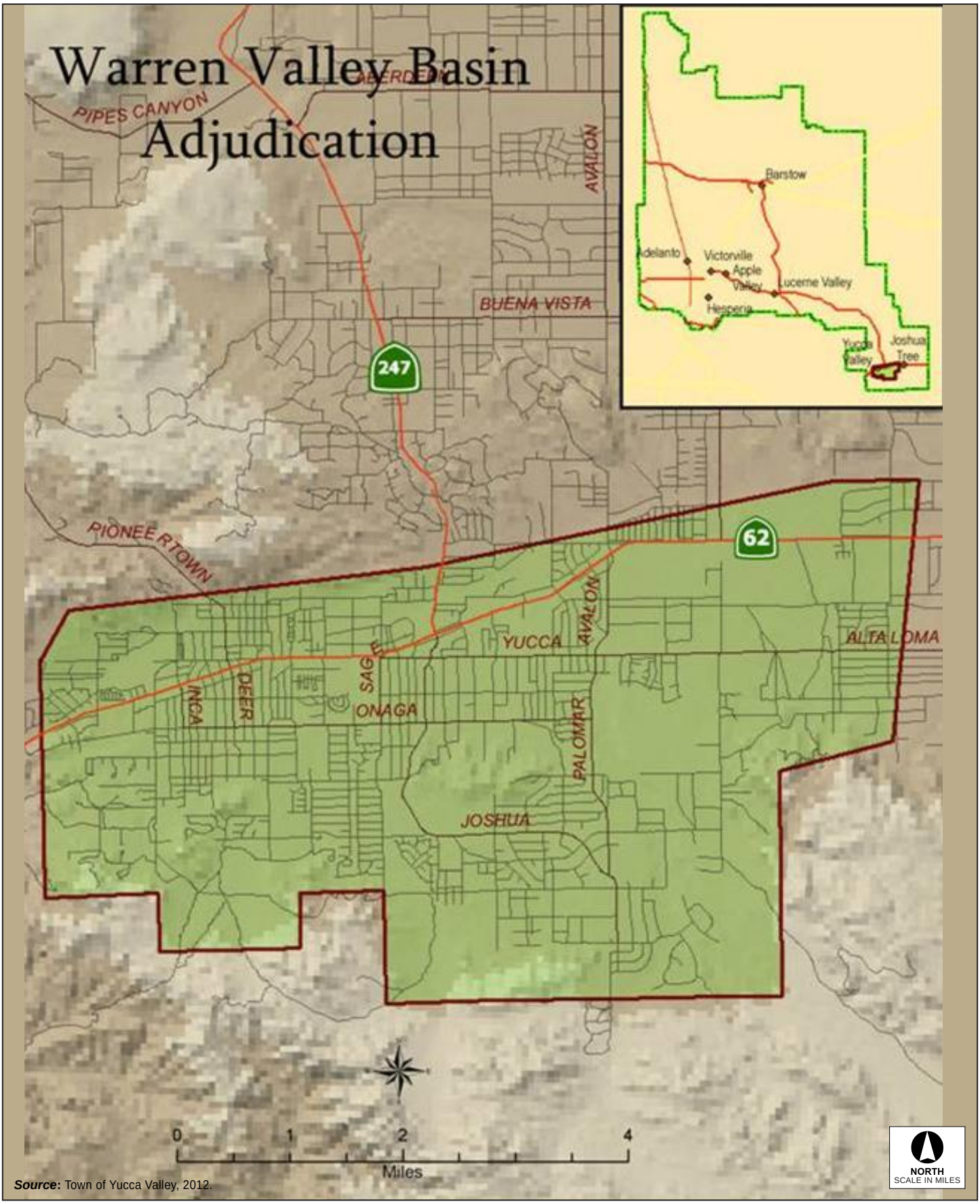

***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.9-2

Warren Valley Basin Adjudicated Boundary

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Flood Hazards

The flood hazards in Yucca Valley can be classified into two general categories: (1) flash flooding down natural and man-made channels and (2) sheet flooding across the alluvial fans, plains, and valleys upon which most of the development in the Town currently lies. As described above, the Town has no rivers or perennial streams. When a storm arrives, the normally dry rocky canyons of the adjacent mountains disperse runoff into broad desert washes or onto alluvial fans and plains—all of which are laced with a complex and dynamic drainage network that ultimately terminates in desert playas (dry lakebeds). Drainage channels in the local mountains are well incised; however, they lose their strong definition upon reaching the valley floor, where sediment-laden water typically spreads out into braided ephemeral stream channels and sheet flow. Channels that are dry most of the year can quickly become dangerous torrents of water, sand, mud and rocks, capable of transporting boulders, trees and even cars. The valley in the southern part of the Town receives runoff from small to very large canyons in the Little San Bernardino Mountains. These canyons disperse floodwaters into numerous washes crossing the valley, including Covington Wash, East and West Burnt Mountain Creeks, Long Canyon, and Hospital Canyon, as well as smaller unnamed drainages—all having the potential to carry flash floods into the most densely populated parts of the Town. Several large drainages emerge from the southern flank of the Sawtooths as well, including Pinon Creek and Water Canyon. Runoff from mountains to the north and south of the valley is collected in the east-flowing Yucca Wash, the main drainage channel. North of the Sawtooths, stream channels also flow eastward, either passing through the gap between the Sawtooth and Bartlett Mountains to Yucca Wash, or continuing eastward north of the Bartlett Mountains (Yucca Valley 2012).

Floods on alluvial fans have characteristics that are significantly different from those caused by river flooding. Although typically shallow in depth, flows can strike with little warning, travel at very high speeds, and carry tremendous amounts of sediment and debris. The Federal Emergency Management Agency (FEMA) defines an active alluvial fan flood hazard based on three related criteria: (1) unpredictable flow paths; (2) abrupt deposition and erosion; and (3) an environment where the combination of sediment availability, slope, and topography creates an ultra-hazardous condition. The active portions of the fan generally have shallow, braided stream channels, and sparse vegetation. FEMA also defines an inactive alluvial fan surface as one that has relatively stable flow paths and a low level of sedimentation/erosion such that it does not cause instability in the established flow paths. Inactive surfaces usually have some soil development as well as incised, typically single-strand channels that behave more like rivers during floods. At their downstream margins, fans merge with the flatter topography of the valley floor.

Designated Flood Zones

As part of the National Flood Insurance Program, the extent of flooding on portions of Yucca Valley has been analyzed through the Flood Insurance Study (FIS) for San Bernardino County (Yucca Valley 2012). The potential flood zones mapped by FEMA are published in Flood Insurance Rate Maps. The Flood Hazard Maps for Yucca Valley (Figure 4.21.9-1) show the FIRM inundation limits for the 100-year and 500-year flood, however it should be noted that the study areas are limited and the flood zoning for the entire Town is incomplete. Consequently, there are areas outside of the mapped flood zones that are likely to be subject to flood hazards. San Bernardino County has also published flood hazard zones, most of which coincide with the FEMA zones.

The flood areas identified on Figure 4.21.9-1 generally cover the low-lying parts of the Town along Yucca Wash, the alluvial fan at the mouth of Water Canyon, and washes that carry runoff from the mountains through populated areas, including the lower reaches of Pinon Creek, Hospital Canyon, Long Canyon, West and East Burnt Mountain Creeks, and Covington Wash. It should be noted that the mid to upper reaches of these drainages are not identified as SFHZs because they have not been studied by FEMA. These areas, as well as other unmapped portions of Yucca Valley, are still vulnerable to flood inundation. Numerous residences, businesses, and mobile homes are within mapped 100-year SFHZs.

The Yucca Valley Airport and several schools are within a 100-year flood SFHZ, including Our Lady of the Desert High School, Calvary Baptist Church School, and Yucca Valley Community Day School.

Storms smaller than the estimated 100-year event have caused localized flooding and sedimentation problems in Yucca Valley, including areas outside of the mapped FEMA zones. Many of the drainage courses in the Town are unimproved and have insufficient capacity, leading to flooding, erosion, and sedimentation on nearby properties. Damage to structures occurs mostly in older buildings that are not adequately elevated above the ground surface, and/or have inadequate flood proofing. The Yucca Valley area still has many unpaved roads in residential areas, and these, along with the natural drainage channels, are vulnerable to erosion and sedimentation. Sediment loads are deposited when the stream velocity slows down, resulting in property damage, or in some cases, parts of the community being temporarily isolated due to eroded or flooded access roads. As the population of Yucca Valley grows, the consequences of flooding are likely to increase. In light of the uncertainties with respect to estimating floods, land use planning in the Town could benefit from additional mapping, a conservative approach to permitting, and a strong adherence to an area-wide, long-term vision for flood safety as individual projects are considered.

Dam and Levee Failure

Dam and levee failure constitutes a serious risk to property and life due to the potential for sudden, massive and destructive flooding. Currently no dams are within the vicinity of Yucca Valley that present any inundation hazard. Currently there are no water storage reservoirs with dams that impact the Yucca Valley Planning Area.

Seiches

A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. Given the lack of large bodies of water in Yucca Valley, seiches as a result of ground shaking are not likely to occur in the study area. However, the HDWD maintains aboveground water storage tanks which many of them were constructed prior to the adoption of newer earthquake design standards. According to HDWD, some of the tanks have been retrofitted with seismic valves. Those older tanks can potentially cause catastrophic damage upon seismic failure.

Mudflows

A mudflow is a type of landslide composed of saturated rock debris and soil with a consistency of wet cement. The bedrock underlying the mountains and hills of Yucca Valley is generally not prone to landsliding. Nevertheless, areas of high topographic relief, such as steep canyon walls, are likely to be impacted by rockfalls and rockslides, typically in response to strong seismic shaking. Soil slips and

mudflows during or after periods of intense rainfall not only impact canyon areas, but also valley areas downstream.

Soil Slip

Soil slip is generated by strong storms, and is widespread in steeper slope areas, particularly after winters with prolonged and/or heavy rainfall. Failure occurs on canyon side slopes, and in soils that have accumulated in swales, gullies and ravines. Slope steepness has a strong influence on the development of soil slips, with most slips occurring on slopes having gradients between about 27 and 56 degrees (50 to 150 percent slope) (Yucca Valley 2012). Slopes within this range of gradients are present in the foothills and mountains within and surrounding Yucca Valley (see Figure 4.21.9-3 [Slope Distribution Map]).

Regulatory Framework

Federal

United States Environmental Protection Agency (USEPA)

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

Clean Water Act

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

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) provides regulations on drinking water quality in Yucca Valley. 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 3 years, as the USEPA adds new contaminants or, based on new research or new case studies, revised MCLs for some contaminants are issued. The California Department of Health Services, Division of Drinking Water and Environmental Management, is responsible for implementation of the SDWA in California.

National Pollution Discharge Elimination System

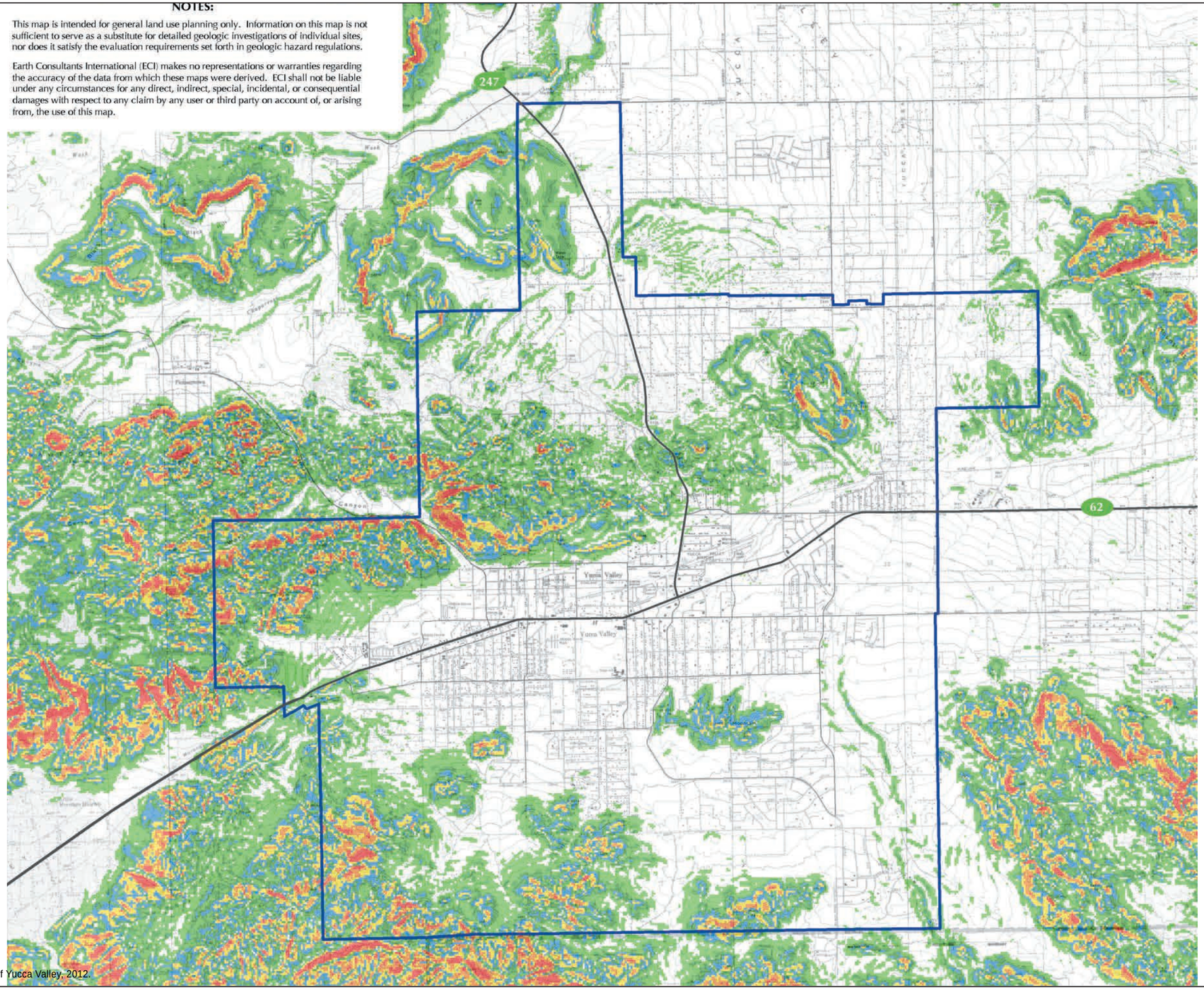
Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under CWA Section 402, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a NPDES permit. The term pollutant broadly includes any type of industrial,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

NPDES has a variety of measures designed to minimize and reduce pollutant discharges. For example, pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) are regulated by the USEPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the Town's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre. The Town has not yet obtained an MS4 permit.

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.

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.



Explanation

Slope (in % grade)

- 0 to 10
- 10 to 20
- 2 0 to 30
- 30 to 40
- 40 to 50
- 50 to 60
- 60 and greater

Town of Yucca Valley Boundary

0 7000 14000

NORTH
SCALE IN MILES

***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.9-3
Slope Distribution Map

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National Flood Insurance Program

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

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

State

State Water Resources Control Board

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

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. Under this act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan, or Basin Plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. Yucca Valley is in the Colorado River Basin, Region 7, in the Southern Mojave Watershed. The Water Quality Control Plan for this region was last updated in 2008. This Basin Plan gives direction on the beneficial uses of the state waters within Region 7, describes the water quality that must be maintained to support

such uses, and provides programs, projects, and other actions necessary to achieve the established standards.

Storm Water Pollution Prevention Plans

Construction site runoff is regulated statewide through a statewide NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002), adopted by the SWRCB on 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

Colorado River Basin Water Quality Control Plan

Water quality and waste discharge standards are adopted and enforced by the Colorado River Basin RWQCB through its Water Quality Control Plan (Resolution No. R7-2008-0013), also known as the Basin Plan. The Basin Plan was most recently updated in March 2008. The Plan provides policies, objectives and guidelines for the maintenance and improvement of water quality in surface and groundwater bodies. The Plan implements the Porter-Cologne Water Quality Control Act discussed above. The Plan identifies existing and potential beneficial uses of waterbodies in the Basin. Administration of the NPDES program is the primary method for addressing point source pollution issues within the Basin. Nonpoint source pollution is addressed through the RWQCB's participation in the State-administered Nonpoint Source Pollution Control Program. No surface body waters are noted in the Basin Plan as having any beneficial use within the Town. However, the Oasis of Mara is noted as having existing or potential beneficial uses for groundwater recreation, recreation, warm freshwater habitat, wildlife habitat, and preservation of threatened or endangered species.

Local

Hi-Desert Water District Urban Water Management Plan

An Urban Water Management Plan (UWMP) prepared by a water purveyor documents the availability of an appropriate level of reliability of water service sufficient to meet the needs of various categories of customers during normal, single dry and multiple dry years. Having such a long-term reliable supply of water is essential to protect the productivity of California's businesses and economic climate. The California Water Management Planning Act of 1983 (Act) as amended, requires urban water suppliers to develop an UWMP every 5 years in the years ending in zero and five. The HDWD 2010 Urban Water Management Plan was adopted June 27, 2011. The HDWD is charged with providing safe, good quality, uninterrupted water at a reasonable pressure, to meet health and fire protection needs of that portion of the Town served by the public water system.

Town of Yucca Valley Master Plan of Drainage

The Town of Yucca Valley Master Plan of Drainage is a comprehensive drainage and flood control plan providing a guide for orderly development of flood control facilities to improve the physical environment of the Town and assuring public safety and adequate flood protection of property. Contained within the report is watershed review and evaluation, including natural drainage courses, floodplains and existing drainage facilities; detailed hydrologic and sediment yield studies, sizing of regional, secondary and local facilities; improvement recommendations, preparation of plan and profile drawings, and cost estimates.

Town of Yucca Valley Municipal Code

Municipal Code Chapter 8.04 (Flood Control) provides regulations designed to promote the public health, safety, and general welfare of its citizenry by adopting floodplain management regulations. The regulations minimize public and private losses due to flood conditions in specific areas.

Town of Yucca Valley General Plan

The Yucca Valley General Plan Water Resources Element policies that are applicable to hydrology, water quality, and flood hazards[11] are as follows:

Policy 1 Require the use of low water consuming, drought resistant landscape planting as a means of reducing water demand, and shall coordinate with the Hi-Desert Water District to establish a strong education/public relations program to inform residents of a wide range of water saving techniques.

Policy 2 Confer and coordinate with the County Transportation/Flood Control District to enhance groundwater recharge concurrent with flood plain management.

Policy 3 Coordinate with the Hi-Desert Water District to compile an inventory of water supplies for present and future water demands.

[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.

Policy 4 Regulate land use and development, and confer and cooperate with the Hi-Desert Water District and County Transportation/Flood Control to facilitate recharging the Warren Valley Groundwater Basin.

Policy 5 Coordinate with the Hi-Desert Water District to share information on potential groundwater contaminating sources.

Policy 6 Ensure the Hi-Desert Water District implements and develops a wastewater collection and treatment system, which will provide for long-range water quality protection and will provide for increased reclaimed water for groundwater recharge.

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 Town 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?

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

Threshold	Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Implementation of the Regional Reduction Plan would not result in a substantial (if any) increase in impervious surfaces in Yucca Valley. Energy retrofits, solar arrays, or wind turbines would not increase impermeable surface area in Yucca Valley. 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?

Energy retrofits and passive energy-producing components such as photovoltaic arrays would not alter existing drainage patterns in Yucca Valley, 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 Town prior to issuance of a grading permit, which requires preparation of an SWPPP and compliance with the stormwater regulations in the CBC. Additionally, all new development proposals must be compliant with Yucca Valley's Drainage Master Plan to ensure minimal impact on existing drainage patterns. Consequently, impacts 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?

Energy facilities under the Regional Reduction Plan could be constructed in a 100-year flood plain. Recognizing that the flood hazard areas of the Town are subject to periodic inundation that can adversely affect the public health, safety and general welfare, all new development, including facilities constructed pursuant to implementation of the Regional Reduction Plan, would be subject to the provisions of Yucca Valley's Municipal Code Chapter 8.04 (Flood Control), which requires new construction to provide adequate protection from potential flooding. The code provides standards for development within FEMA designated flood hazard areas to address the potential for flood hazards on a site and downstream as a result of development without the construction of regional storm drain facilities or exceeding the capacity of existing storm drain facilities. Additionally, General Plan Water Resources Element Policy 2 and Policy 4 require all new development proposals in flood hazard areas to coordinate with the County Transportation/Flood Control District to enhance groundwater recharge concurrent with flood plain management and to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. Therefore, the impact would be ***less than significant***. No mitigation is required

Threshold	Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

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 Town prior to the beginning of construction. Compliance with Town provisions including the Flood Control Regulations (Municipal Code Chapter 8.04) would ensure that people and property are protected from flooding through responsible and efficient stormwater management. Additionally, General Plan Policies 2 and 4 of the Water Resources Element require all new development proposals in flood hazard areas to coordinate with the County Transportation/Flood Control District to enhance groundwater recharge concurrent with flood plain management and to assess the impact that the proposed development will have on the flooding and sedimentation potential and implement appropriate mitigation measures to reduce this impact to an acceptable level. Furthermore, 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?

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?

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?

Renewable energy generation facilities could be constructed in a 100-year flood hazard area as a result of Regional Reduction Plan implementation. Municipal Code Chapter 8.04 requires new construction to provide adequate protection from potential flooding. As such, the development of energy facilities within the Town's 100-year flood areas would not impede or result in the redirection of flood flows in Yucca Valley. Compliance with the Municipal Code and General Plan policy is assured through Town review of all proposed development. Therefore, the impact would be ***less than significant***, and 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?

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 Yucca Valley Municipal Code Chapter 8.04. Currently there are no water storage reservoirs with dams that impact the Yucca Valley Planning Area. There are however, five planned detention/debris basins and one existing basin (Long Canyon) that fall under the jurisdiction of the state (due to embankment height and/or storage capacity), even though they will contain stormwater only on a temporary basis. The Regional Reduction Plan would not interfere with the State's responsibilities in maintaining and recertifying any of these structures within or protecting Yucca Valley. Continued maintenance of area levees in accordance with federal law will provide sufficient safeguards against potential damage due to levee failure. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project inundation by seiche, tsunami, or mudflow?

Yucca Valley is not located within the immediate area of the Pacific Ocean; thus, there would be no impacts associated with inundation by tsunamis. The High-Desert Water District maintains sixteen aboveground water tanks. All the tanks are located within the Town limits except Reservoir 33, which is located to the northeast, in the Yucca Mesa area. The two newest tanks were constructed in recent years

(2000 and 2003); however, many of the older tanks were constructed 20 years ago or more, before the adoption of newer earthquake design standards. Older tanks may not meet the new construction requirements for safety, lacking the flexible joints and other seismic upgrades that can help limit the damage that a failed water tank could cause to areas downstream. According to the District, some of the tanks have been retrofitted with seismic valves. Failure of these storage tanks have been addressed in the Technical Background Report to the Safety Element of the Yucca Valley General Plan. The proposed project, the Regional Reduction Plan, does not propose any new homes or other structures for human occupancy.

The potential for mudflow, although relatively minimal, exists within areas lying just below the steep slopes of the surrounding mountains. Areas further from the mountains within the floodplain may be potentially vulnerable to mudflows during heavy storms. Yucca Valley's building code and Flood Control chapter provide minimum standards of construction, such as anchoring, placement and type of utility equipment, building materials, building elevation and flood proofing to protect structures from mudflow damage. Therefore, the impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

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

References

California Department of Water Resources (CDWR). 2004. *California's Groundwater Bulletin 118*, February.

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

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———. 1995b. *Town of Yucca Valley General Plan*, December.

———. 2012. *Technical Background Report to the Safety Element of the Yucca Valley General Plan*, September.

4.21.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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 Town of Yucca Valley is located in the desert region east of the San Bernardino Mountains, north of Joshua Tree National Park in southern San Bernardino County. This area, known as the Morongo Basin, is part of the Mojave Desert. State Route 247 and State Route 62 (Twentynine Palms Highway) provide regional access. Yucca Valley serves as a commercial and residential center for the Morongo Valley, supporting the major economic drivers in the region, Joshua Tree National Park and the U.S. Marine Corps Facility in Twentynine Palms. Yucca Valley is known for its rural desert and quiet life, natural vistas, and access to natural areas in both the mountains and the desert.

The Town of Yucca Valley was incorporated in 1991. Town corporate boundaries and sphere-of-influence are the same. Development within the Town has been shaped by the physical environment, particularly the topographic constraints that create the Morongo Basin, within which the Town has developed. Major features of the Town of Yucca Valley affecting development patterns include extensive unimproved desert washes in both the northern and southern portions of Town and substantial areas that are hill or mountainous terrain. Growth to the south is precluded by the boundaries of the Joshua Tree National Park and limited in the north by the Sawtooth and San Bernardino mountains.

Land Uses

Yucca Valley is a rural community that is primarily residential, with higher density of development in the north and lower density in the south. A substantial urban core with commercial development has developed along Highway 62. Figure 4.21.10-1 (General Plan Land Use Map) shows the adopted General Plan Land Use designations.

The Old Town Specific Plan (OTSP) was adopted in 2007 and encompasses approximately 250 acres along Highway 62 that served as the Town's original commercial core. The OTSP includes mixed use areas that allow residential development up to 40 units per acre. This is the highest density permitted in the Town and is part of a comprehensive plan to revitalize one part of the community core into a vibrant, walkable environment.

The Yucca Valley Airport is a public use general aviation facility in the Town of Yucca Valley. Situated east of Highway 247 and north of Highway 62, the airport is leased and operated by the Yucca Valley Airport District for aircraft storage, maintenance, use, and training. The airport is unique in that homes

with attached and detached hangars are located on the property for the convenience of residents with privately owned aircraft.

Regulatory Framework

Federal

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

State

California Air Resources Board

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

Executive Order S-3-05

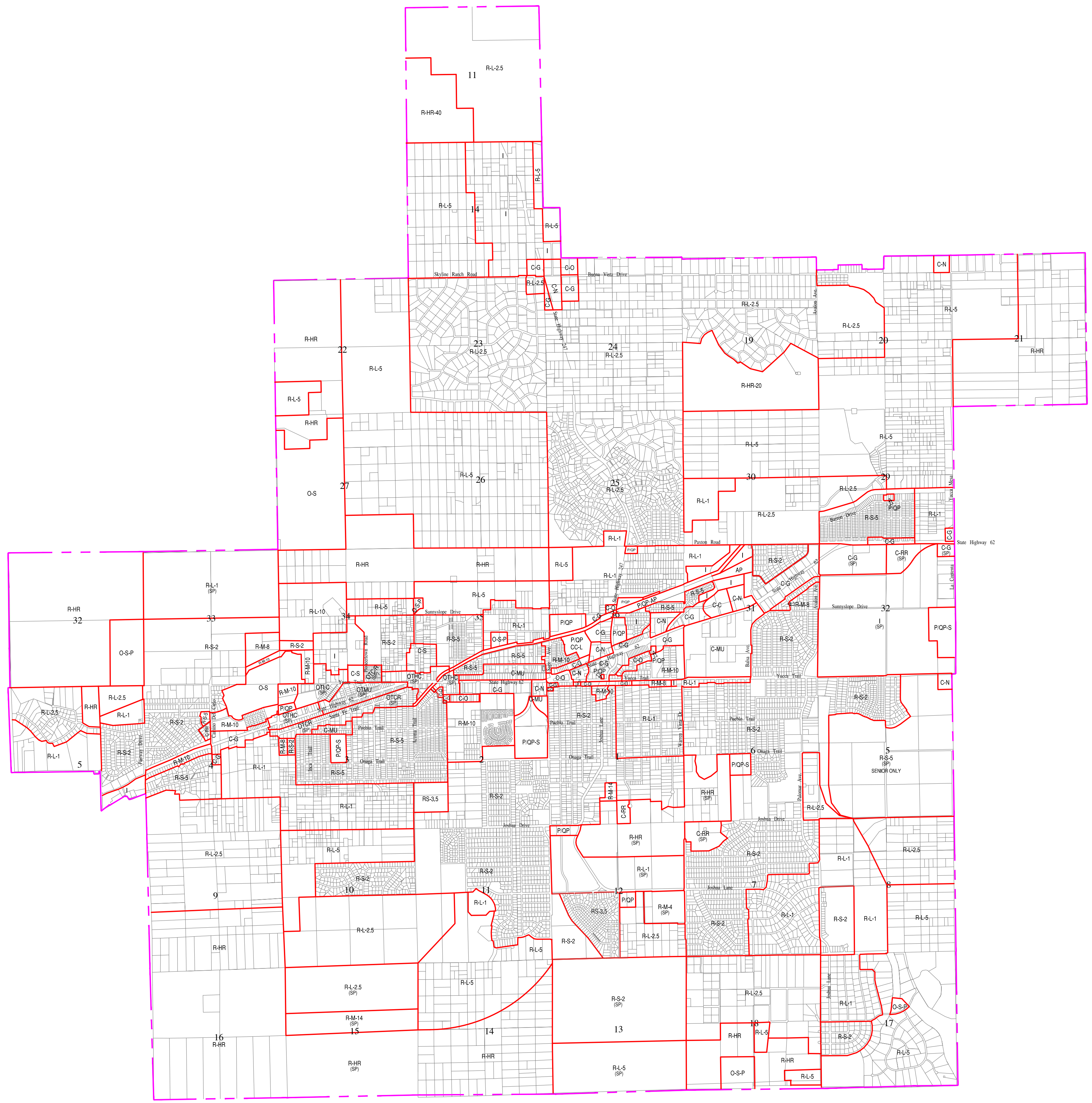
California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

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

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

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



Source: Town of Yucca Valley, 2012.

LEGEND

R-HR	Hillside Reserve (1 du / 20 ac.)
R-L	Rural Living (1 du / 1, 2.5, 5, 10, 20 ac.)
R-S	Residential, Single Family (0-2, 0-3.5, 0-5 du / ac.)
R-M	Residential, Multi-Family (0-10, 0-14 du / ac.)
C-MU	Mixed Use Commercial (varies)
C-S	Service Commercial
C-N	Neighborhood Commercial
C-G	General Commercial
C-C	Community Commercial
C-O	Office Commercial
C-RR	Resort Recreation Commercial
I	Industrial
P/QP	Public / Quasi Public (See Symbols)
O-S	Open Space (See Symbols)
(SP)	Specific Plan

Old Town Land Use

OTHC	Old Town Highway Commercial
OTI/C	Old Town Industrial/Commercial
OTMU	Old Town Mixed Use
OTC/R	Old Town Commercial/Residential

SYMBOLS

Public / Quasi Public

AP	Airport
CC	Civic Center
FS	Fire Station
PS	Police Station
H	Hospital
S	School
L	Library
U-SS	Utility Substation
FW	Floodway

Open Space

P	Park

0 0.1 0.2 0.3 0.5 0.75 1.0

NORTH
SCALE IN MILES

Figure 4.21.10-1
General Plan Land Use Map

ATKINS

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 nonprofessional 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 carbon dioxide equivalent (MMT CO_2e).

Under AB 32, California ARB has the primary responsibility for reducing GHG emissions. California ARB has published a staff report titled California 1990 GHG Emissions Level and 2020 Emissions Limit (California ARB 2007a) that determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO_2e. Additionally, in December 2008, California ARB adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The plan emphasizes a cap-and-trade program, but also includes the discrete early actions.

Senate Bill 97 (SB 97)

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

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

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

> Section 15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.
>
> (a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175–15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).
>
> (b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.
>
> (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
>
> (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
>
> (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
>
> (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
>
> (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
>
> (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
>
> (F) Be adopted in a public process following environmental review.
>
> (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

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

Executive Order S-13-08

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

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

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

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

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

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

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

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

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

Senate Bill 375

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

Regional

Southern California Association of Governments (SCAG)

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

Regional Comprehensive Plan

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

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

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

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

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, 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 subregional 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 Town of Yucca Valley 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 nonattainment pollutants. Table 4.21.3-4 (MDAQMD Attainment Plans) in Section 4.21.3 (Air Quality) lists the air quality attainment plans applicable to Yucca Valley.

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 Olancha 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 nonfederal 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 Town of Yucca Valley. Additional information on this plan is presented in Section 4.21.4 (Biological Resources).

Desert Renewable Energy Conservation Plan Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)

The proposed Desert Renewable Energy Conservation Plan (DRECP) was established to conserve and manage rare, threatened, and endangered plant and wildlife species while streamlining the review and approval of renewable energy projects in California's desert areas. The DRECP covers approximately 22.5 million acres of federal and nonfederal land located in the California deserts in Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego counties. It is not applicable to privately held lands within Yucca Valley. This plan has not yet been adopted. It is planned to be released for public review sometime in 2013.

Local

Town of Yucca Valley Town Code

The Town of Yucca Valley has prepared a Development Code (Title 9), but as of February 2013, it has not been adopted. The Development Code establishes development standards for zoning districts, general development standards, and permitting requirements for various types of land uses.

Town of Yucca Valley General Plan

The General Plan policies that are applicable to land use[12] are as follows:

Land Use Element, General Land Use

Policy 5 Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office, and residential uses.

Policy 6 Encourage in-fill development on subdivided lands located adjacent to existing residential areas and utilities to maximize the efficient utilization of land and infrastructure.

Land Use Element, Residential

Policy 1 Areas of existing residential development and surrounding vacant lands shall be planned in a manner which preserves the desert rural neighborhood character and assures a consistent and compatible land use pattern.

Community Design Element

Policy 6 Require the use of to implement the "Mixed Use" land use designation, which may include an integrated mix of commercial, residential, institutional, and professional office uses.

[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.

Biological Resources Element

Policy 7 Encourage and cooperate in the establishment of multiple use corridors that use drainage channels and utility easements to provide wildlife corridors and public interconnection between open space areas in the community and vicinity.

Water Resources Element

Policy 4 Regulate land use and development, and confer and cooperate with the Hi-Desert Water District and County Transportation/Flood Control to facilitate recharging the Warren Valley Groundwater Basin.

Open Space and Conservation Element, Open Space and Conservation

Policy 4 Develop and implement guidelines and regulations that assure provision of appropriate buffers between urban and open space/conservation areas.

The Town has begun preparation of an update to the current adopted 1995 General Plan. A Draft Land Use Element has been prepared but not yet adopted.

Yucca Valley Airport Comprehensive Land Use Plan

The San Bernardino Airport Land Use Commission has adopted an Airport Comprehensive Land Use Plan (ACLUP) for the Yucca Valley Airport (1992).

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 Yucca Valley General Plan, and the Town's Zoning and Development Code.

Effects Not Found to Be Significant

Threshold	Would the project physically divide an established community?

Yucca Valley's General Plan encourages development that does not conflict with other existing or potential developments. It also aims to ensure that new development is compatible with existing developments. 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?

Several regionally and locally adopted land use plans, policies, and regulations would be applicable to development of infrastructure and renewable generation under the proposed Regional Reduction Plan. These include SCAG's Regional Comprehensive Plan and Guide, 2012 RTP and SCS, City Municipal Code, and MDAQMD air quality attainment plans.

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

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

The Town will meet and exceed this goal through a combination of state (~93 percent) and local (~7 percent) efforts. The Town actually exceeds the goal with only state/county level actions (108 percent of goal), but has committed to several additional local measures. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Yucca Valley's on-road, solid waste and building energy sectors in 2020. An additional reduction of 3,024 MT CO_2e will be achieved primarily through the following local measures, in order of importance: GHG Performance Standard for New Development (PS-1); Implement SBX 7-7 (Water-4); and Solar Installations for Existing Housing (Energy-7). Yucca Valley's Plan has the greatest impacts on GHG emissions in the solid waste management, on-road transportation, and building energy sectors.

Although the Town is implementing sustainable development practices in both current projects as well as in policies in the Town's General Plan Update project, the SCS implemented in the Morongo Basin (Transportation-1) will not result in any measureable GHG reductions for the Town itself.

Figure 4.21.-2 (Emissions Reduction Profile for Yucca Valley) in Section 4.21.0 (Introduction to the Analysis) shows Yucca Valley'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., 15 percent) below its projected GHG emissions level 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 (~93 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.21-3 (Emissions by Sector for Yucca Valley) in Section 4.21.0 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 equipment emissions sectors.

Table 4.21-3 (Emission Reduction by Sector for Yucca Valley) in Section 4.21.0 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 Yucca Valley exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the solid waste management, on-road transportation, and building energy sectors.

Figure 4.21-4 (Emission Reductions by Control and by Sector for Yucca Valley) in Section 4.21.0 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 the GHG Performance Standard for New Development (PS-1).

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 subregional 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 vehicle miles travelled (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 nonresidential uses. The goals of the Yucca Valley 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.

While a separate document, the Regional Reduction Plan will be utilized as a companion document to the Yucca Valley General Plan to provide a more comprehensive and detailed framework for land-based policy decisions to reduce greenhouse gas emissions from existing and future development. The Regional

Reduction Plan will further the goals and policies of the General Plan with regard to energy conservation and sustainable development by implementing, in addition to Town 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 Town 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. However, 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.

Any facilities developed adjacent to or within the safety zones of the Yucca Valley Airport pursuant to the Regional Reduction Plan would be required to be consistent with that airport's land use plan policies for land uses adjacent to or within the airport safety zones to obtain approval.

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 Town'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?

There are no local HCPs or NCCPs that apply to the Town of Yucca Valley. The West Mojave Plan may be expanded to include nonfederal land in the future, but does not apply to development in the Town at this time. Additionally, the DRECP NCCP/HCP would apply to the Town, but has not been adopted at this time. There would be ***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 Yucca Valley are consistent with the goals and policies of the Town's General Plan. Therefore, there would be no

cumulatively considerable contribution to potential conflicts with applicable plans, and ***cumulative impacts would be less than significant***.

References

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

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

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———. 2013. *Draft Open Space and Conservation Element*, February 13.

———. 2011. *Town of Yucca Valley Municipal Code*.

4.21.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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 Town 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.

Within the Town of Yucca Valley and vicinity, there are relatively few mineral resources, as the majority of the area is made up of alluvial fans, containing mostly sand, gravel and traces of clay. More particularly, the soil composition of the area consists of: older, undifferentiated alluvium, well dissected alluvial fans, sheared and deformed metamorphic. rock (Gneiss), continental deposits (undifferentiated, fluvial gravel, sand, silt and clay), and Cretaceous or Jurassic Quartz Monzonite.

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 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

Town of Yucca Valley General Plan

The Yucca Valley General Plan policies that are applicable to mineral resources[13] are as follows:

Mineral Resources Element

Policy 2 Regulate and monitor the extraction and use of all minerals, sand and gravel within the General Plan Study Area and vicinity.

Policy 3 Protect valuable mineral resource areas from potential development that might preclude future extraction of the mineral resources.

[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.

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 Town 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?

The Town of Yucca Valley likely does not contain mineral resources of statewide or regional importance. The Town lies outside of areas that have been mapped by the California Geologic Survey for mineral resource classification and the United States Geologic Survey does not identify any mines, processing plants, or locations of potential mining resources within the Town. Therefore, it is unlikely that development associated with implementation of the Regional Reduction Plan would not result in the loss of important mineral resources. 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?

Sand and gravel deposits in the area represent an important economic resource; however, Yucca Valley contains relatively few valuable or strategic mineral resources. Sand and gravel are prevalent in the Mojave Desert region, and implementation of the Regional Reduction Plan would not result in the loss of availability of locally important mineral resources. There would be ***no impact***.

Cumulative Impacts

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

References

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

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

———. 2012. *Initial Study for: Yucca Valley General Plan Update*. Prepared by The Planning Center/DC&E, November.

4.21.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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 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.

The most commonly used indices for measuring community noise levels are the Equivalent Energy Level (L_{eq}), and 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

Yucca Valley is subject to typical urban noises such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. The Town also has several transportation-related noise sources including the State Highways 62 (SR-62) and 247 (SR-247), and major arterials including Yucca Trail, Onaga Trail and Joshua Lane. Noise levels from the traffic on SR-62, SR-247 and these arterials reach or exceed the

65 dB CNEL. Residential uses along or in close proximity to these transportation facilities are impacted by vehicle noise.

Noise sources that are not directly related to transportation include noise from commercial and industrial centers, construction, and property maintenance activities.

Airports

Yucca Valley Airport is a privately owned, long term leased to Yucca Valley Airport District, public use airport that is classified in the National Plan of Integrated Airport Systems as a general aviation, basic utility facility. The airport is situated in the High Desert area of San Bernardino County, 3,224 feet above sea level, and serves several of the surrounding small communities, as well as the Joshua Tree National Park with general aviation air service. Yucca Valley Airport is open to the general public and to visiting aircraft 24 hours a day. Yucca Valley Airport does not have any commercial passenger services; it does provide services such as aircraft maintenance and flight training. The 65 dBA CNEL contour is located entirely within the boundaries of the Yucca Valley Airport.

Noise-Sensitive Land Uses

A series of land uses have been deemed sensitive by the State of California. These land uses require a serene environment as part of the overall facility or residential experience. Many of these facilities depend on low levels of sound to promote the well-being of the occupants. These uses include, but are not limited to schools, hospitals, rest homes, long-term-care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas. Activities conducted in proximity to these facilities and/or the placement of new sensitive facilities must consider the noise output, and to ensure that they do not create or expose sensitive uses to unacceptable noise levels. Commercial and industrial uses are not considered noise- and vibration-sensitive uses.

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

Town of Yucca Valley General Plan

The following Yucca Valley General Plan Noise Element policies[14] would be directly applicable to the implementation of the Regional Reduction Plan and the associated local reduction measures:

Policy 3 Project designs will be required to include measures which assure that interior noise levels for residential development not to exceed 45 CNEL as required by Title 25 (Noise Insulation Standards).

Policy 5 Develop and maintain a circulation plan that is consistent with the residential character of the Town, avoids impacts to existing and planned sensitive receptors/uses, and which provides fixed routes for existing and future truck traffic.

The Town's General Plan also establishes the compatibility of land uses with different noise levels. Noise levels in the 55 to 60 dB CNEL range are considered normally acceptable to all land use types, while higher levels in the 70 to 80 dB CNEL ranges are typically unacceptable to certain land use types.

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:

[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.

- 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

The reduction measures selected by Yucca Valley in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in environmental effects on the noise environment in Yucca Valley.

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?

Implementation of the Regional Reduction Plan measures selected by Grand Terrace would not result any increases in vehicle traffic volumes or rail services that could be a source of transportation-related noise that would affect interior or exterior noise levels. Energy-efficiency retrofits (Energy-1), solar energy in new housing (Energy-7), and energy-saving features in new development (PS-1) would not be expected to generate noise, and, therefore, would not conflict with adopted standards. The remaining measures (Energy-5 and Water-4) would not involve noise-generating operations that would not occur without implementation of the Regional Reduction Plan. Installation of energy-saving features at existing or new development would be expected to generate some noise, but such noise would be temporary, construction related noise associated with typical construction activities. The proposed project would not involve the construction and occupancy of structures that would result in noise/land use compatibility impacts. Therefore, applicable noise standards would not be exceeded, and there would be ***no impact***.

Threshold	Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Energy-efficiency retrofits (Energy-1) and installation of solar in new commercial uses housing (Energy-5) would involve some limited construction-type activities. Vehicles delivering items to the locations and the use of heavy equipment to install the features could result in vibration, but this would

be temporary and intermittent and most likely not readily discernible. Solar arrays on structures or energy-retrofits would not be a source of vibration. Installation of energy-saving features on building exteriors in new development that would be associated with implementation of the GHG performance standard (PS-1) would be within the footprint of each individual new development. Any vibration associated with installing those features would occur at the time that project is constructed, and there would not be groundborne vibration or groundborne noise levels associated with those features. The other measures (Energy-7 and Water-4) would not be a source of vibration. 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?

As explained above, implementation of the Regional Reduction Plan measures in Yucca Valley would not be a permanent source of transportation-related or stationary-source noise. There would be ***no impact***.

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?

Energy-efficiency retrofits (Energy-1) and installation of solar in new commercial uses (Energy-5) would involve some limited construction-type activities. Construction noise may result in temporary substantial increases in noise levels at those locations. Installation of energy-saving features on building exteriors in new development that would be associated with implementation of the GHG performance standard (PS-1) would be within the footprint of each individual new development. Any noise associated with installing those features would occur at the time that project is constructed. Construction activities would only occur during weekdays and would not involve excessive noise generating equipment such as pile driving activities. Additionally, noise generating construction activity would occur without implementation of the Regional Reduction Plan's local measures. Therefore, this 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 the exposure of people residing or working in the project area to excessive noise levels?

There are no public airports in Yucca Valley or immediate vicinity. There would be ***no impact***.

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?

The Yucca Valley Airport is a privately owned airport, long term leased to Yucca Valley Airport District. 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 Town to ensure that placement of these types of facilities near a private airstrip or heliport would not result in the exposure of people to excessive noise levels. Additionally, developments near the airport would have to comply with the Yucca Valley Airport Comprehensive Land Use Plan to ensure that implementation of these types of

uses near airports does not result in excessive noise levels in the area. Therefore, the impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Implementation of the Regional Reduction Plan in Yucca Valley would not result in any permanent increase in ambient noise levels or exceed the Town's noise standards. There could be minor noise impacts associated with construction activities, but those activities are exempt from noise standards. Construction noise would be site-specific, temporary, and intermittent and would not combine with other projects to produce a cumulative effect. The proposed project's contribution would, therefore, not be cumulatively considerable, and ***cumulative impacts would be less than significant***.

References

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

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

4.21.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a) and associated environmental documents (1995b). 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

In 2010, the Town's population was 20,700 (20,652 in 2008) and is projected to grow to 22,953 by 2020, an increase of 11 percent over 2008. Employment is also expected to grow by a similar amount.

Yucca Valley has traditionally been a single-family residential community. In 2010, approximately 80 percent of the Town's housing stock was single-family detached units.

Table 4.21.13-1 (Socioeconomic Data for Yucca Valley) presents socioeconomic data for Yucca Valley, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.21.13-1 Socioeconomic Data for Yucca Valley

Category	*2008*	*2020*
Population	20,652	22,953
Housing (du)	8,254	9.856
Single-Family (du)	6,516	7,780
Multifamily (du)	1,738	2.076
Employment (jobs)	4,575	5,071
Agricultural (jobs)	9	26
Industrial (jobs)	640	865
Retail Commercial (jobs)	1,385	1,427
Non-Retail Commercial (jobs)	2,541	2,753

du = dwelling unit

Regulatory Framework

Federal

United States Department of Housing and Urban Development (HUD)

The United States Department of Housing and Urban Development's (HUD) mission is to create strong, sustainable, inclusive communities and quality affordable homes within the United States. HUD is

working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes: utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business. HUD is responsible for enforcement of the federal Fair Housing Act.

Federal Fair Housing Act

In April 1968, at the urging of President Lyndon B. Johnson, Congress passed the federal Fair Housing Act (codified at 42 USC 3601–3619, penalties for violation at 42 USC 3631), Title VIII of the Civil Rights Act of 1968. The primary purpose of the Fair Housing Law of 1968 is to protect the buyer/renter of a dwelling from seller/landlord discrimination. Its primary prohibition makes it unlawful to refuse to sell, rent to, or negotiate with any person because of that person's inclusion in a protected class. The goal is a unitary housing market in which a person's background (as opposed to financial resources) does not arbitrarily restrict access. Calls for open housing were issued early in the twentieth century, but it was not until after World War II that concerted efforts to achieve it were undertaken.

State

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department estimates the relative share of California's projected population growth that would occur in each county in the state based on California Department of Finance (DOF) population projections and historical growth trends. Where there is a regional council of governments, the Housing and Community Development Department provides the regional housing need to the council. The California housing element law (Government Code Sections 65580–65589) requires that each City and County identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs. State law recognizes the vital role local governments play in the supply and affordability of housing.

Senate Bill 375

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. These regional targets are met within each region through the drafting, adoption, and implementation of a sustainable community strategy (SCS). The SCS outlines the region's plan for combining transportation resources, such as roads and mass transit, with a realistic land use pattern, in order to meet a state target for reducing greenhouse gas emissions. The strategy must take into account the region's housing needs, transportation demands, and protection of resource and farm lands. The Metropolitan Planning Organization (MPO) for each region is responsible for drafting, adoption and implementation of the SCS for that region. SB 375 also modified Housing Element Law to achieve consistency between the land use pattern outlined in the SCS and Regional Housing Needs Assessment allocation. The legislation also

substantially improved cities' and counties' accountability for carrying out their housing element plans. After submitting the SCS to the California Air Resources Board, the MPO allocates the Regional Housing Needs Assessment numbers to localities, based on the development pattern shown in the SCS and the existing allocation factors in housing element law. SB 375 extended the duration of housing elements from 5 to 8 years in order to align them with RTP deadlines. One housing element will be completed for every two RTPs. The bill also set the housing element due date at 18 months after the MPO estimates it will adopt the SCS. The MPO for this region is the Southern California Association of Governments (SCAG).

Regional

Southern California Association of Governments (SCAG)

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

Town of Yucca Valley General Plan

The Yucca Valley General Plan policies that are applicable to housing[15] in the context of implementing the Regional Reduction Plan in Yucca Valley are as follows:

Land Use Element, General Land Use

Policy 5 Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office, and residential uses.

Land Use Element Residential

Policy 1 Areas of existing residential development and surrounding vacant lands shall be planned in a manner which preserves the desert rural neighborhood character and assures a consistent and compatible land use pattern.

Housing Element

Policy 1 Ensure that the quality of existing and future dwelling units in neighborhoods within the Town of Yucca Valley is preserved and maintained.

Policy 2 Provide residential lands that are adequate to meet the housing objectives for the Town.

Policy 6 Ensure that new housing projects are designed in an energy efficient manner.

Policy 12 High density, affordable and senior projects shall be located with convenient access to shopping, public transit, and school and park facilities.

The Town has begun preparation of an update to the current adopted 1995 General Plan. A Draft Housing Element has been prepared but is not yet adopted.

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

[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 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 nor would it result in permanent employment-generating activities that would generate demand for housing. No extension of infrastructure is proposed. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The Regional Reduction Plan would not involve the development of any structures or facilities that would displace existing housing. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the Town. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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 Town. 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

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

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

———. 2012. *Initial Study for: Yucca Valley General Plan Update*. Prepared by The Planning Center/DC&E, November.

———. 2013. *General Plan Update Housing Technical Report*, February 13.

4.21.14 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 Town of Yucca Valley from implementation of the Regional Reduction Plan. Park services are addressed in Section 4.21.15 (Recreation). Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.21.17 (Utilities/Service Systems). Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), General Plan Update Draft Safety Element (2012), and the Technical Background Report to the Safety Element (2012). 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

San Bernardino County Fire Department

Fire suppression services in the Town of Yucca Valley are provided by the San Bernardino County Fire Department, Division 5. The Fire Department provides all fire services including fire suppression, inspection, fire safety, rescue and emergency response (emergency medical and paramedic ambulance transportation). The San Bernardino County Fire Department also monitors the fire hazard in the Town, and has ongoing programs for public education, and the investigation and mitigation of hazardous situations. Fire-fighting resources in Yucca Valley include Station 41 is located on State Route 62 near Joshua Lane; Station 42 is located on Aberdeen Road in the Yucca Mesa area, and the Administration office is located at 6942 Airway Avenue, Suite A, Yucca Valley. Stations 41 and 42 provide year-round service, whereas Station 38 is only manned when necessary, typically during the high-fire season months (Yucca Valley 2012a). Yucca Valley's emergency facilities are shown on Figure 4.21.14-1 (Emergency Facilities).

San Bernardino County Department of Public Health

Due to limited regional emergency health facilities, the Town's Emergency Operations Plan (EOP) identifies San Bernardino County Department of Public Health as the primary agency responsible for public health and medical needs. The EOP provides direction for government officials and departments in emergency circumstances. When it comes to emergency healthcare, this agency will designate or setup facilities based on the severity of the situation. As the population continues to grow, these agencies and facilities will also expand to meet the health care needs of residents. The Hi-Desert Medical Center is the sole provider of emergency and acute care serving a 1,800-square-mile area of the Morongo Basin. This facility is the closest hospital to the Town of Yucca Valley. Smaller medical facilities in Town include urgent care centers and special service facilities.

Police Protection Services

San Bernardino County Sheriff's Department

The Town of Yucca Valley has contracted with the San Bernardino County Sheriff's Department to provide police services. To meet specific law enforcement needs, the police department utilizes a juvenile officer, traffic officer, MET/POP officer and an Off-Highway Vehicle Enforcement Team along with Citizens on Patrol volunteers. The San Bernardino County Sheriff's Department is the regional law enforcement agency in San Bernardino County. The county's Morongo Basin substation in the community of Joshua Tree serves as the area's regional headquarters for provision of police services. A satellite law enforcement facility is in the Yucca Valley Community Center.

Schools

Morongo Unified School District

The Town of Yucca Valley lies within the Morongo Unified School District. Existing schools which serve the project area include Yucca Valley Elementary, Onaga Elementary, La Contenta Middle School, Yucca Valley High, and Sky High Schools.

Libraries

San Bernardino County Library

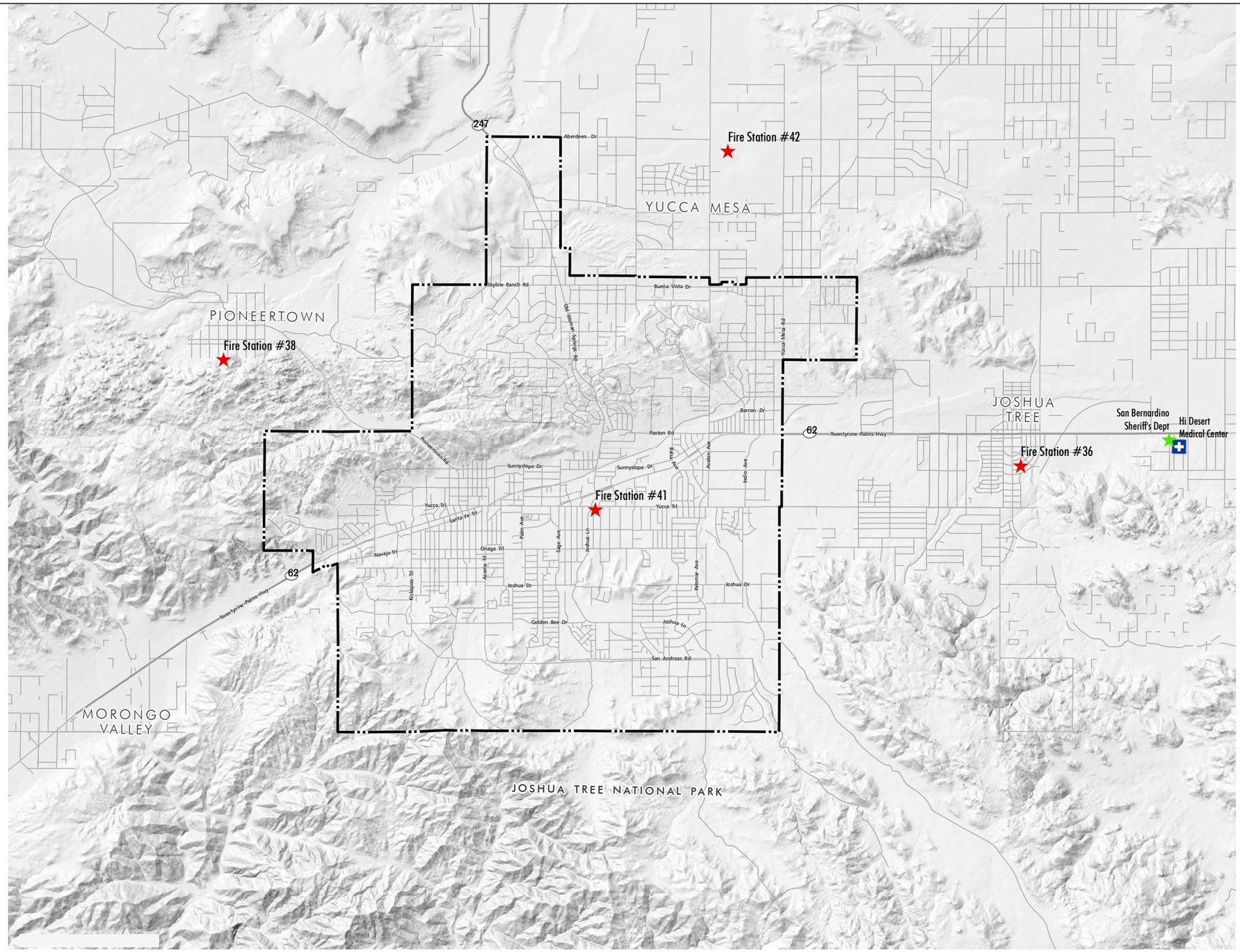
The Yucca Valley Branch Library is a part of1he San Bernardino County Library System. Yucca Valley's branch consists of an 8,200-square-foot facility that houses over 30,000 books and more than 1,000 video and audio cassettes. The Library also subscribes to 116 magazines and 6 newspapers (Yucca Valley 1995b).

Regulatory Framework

Federal Fire Protection Standards

National Fire Protection Association Code 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

The National Fire Protection Association (NFPA) Code 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.



***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.14-1
Emergency Facilities

ATKINS

State

California Emergency Medical Service Authority (EMSA)

The California Emergency Medical Service Authority (EMSA) is responsible for coordinating the planning, development, and implementation of 32 local Emergency Management Services systems throughout California. EMSA has established a standard response time not to exceed 5 minutes at least 90 percent of the time from receipt of the emergency call to on-scene-arrival for basic life support and CPR-capable first responder. Advanced life support response should not exceed 8 minutes at least 90 percent of the time, which is lower than NFPA standards.

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.

California Education Code Section 17620 gives school districts the authority to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities, subject to any limitations set forth in Government Code Title 7, Division 1, Chapter 4.9 (commencing with Section 65995).

Regional

Automatic and Mutual Aid Agreement

Although Stations 41 and 42 are tasked with the responsibility of fire prevention and fire suppression in Yucca Valley, in reality, fire-fighting agencies team up and work together during emergencies. These teaming arrangements are handled through automatic and mutual aid agreements, which obligate fire departments to help each other under predefined circumstances. Automatic aid agreements require the nearest fire company to respond to a fire regardless of the jurisdiction. Mutual aid agreements obligate fire department resources to respond outside of their district upon request for assistance.

Local

Town of Yucca Valley General Plan

The Yucca Valley General Plan Safety Element hearing draft contains the following policies related to public services[16] (Yucca Valley 2012b):

Policy S4-2 Continue public education efforts to inform the community of wildland fire hazards and ways to minimize the damage caused by fires.

Policy S4-3 Ensure that public and private water distribution and supply facilities have adequate capacity and reliability (peak load water supply) to supply both every day and emergency firefighting needs.

[16] This is 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 S4-4 Continue long-range wildland fire safety planning, including enforcement and updates to the Municipal Code, improved infrastructure, and partnerships with other public agencies and the private sector.

Policy S4-5 Update the Fire Hazard Areas map as development changes.

Policy S7-1 Provide an appropriate level of police and fire protection to preserve and protect the health, welfare, and property of residents and businesses in the Town of Yucca Valley.

Policy S7-2 Require the San Bernardino County Sheriff and Fire Departments to evaluate new development plans and comment on their ability to provide services.

Policy S7-3 Encourage the evaluation of projects using Crime Prevention through Environmental Design (CPTED) design practices as a means of providing increased security in residential, commercial, and industrial development.

Policy S7-4 Update and maintain the Emergency Operations Plan and Hazard Mitigation Plan keeping them current with county, state, and federal requirements, include measures pertaining to man-made and natural hazards such as flood, access, earthquakes, landslides, hazardous materials, evacuation, severe weather and fire.

Policy S7-5 Establish emergency evacuation routes and adequate signage.

Policy S7-6 Promote public and quasi-public education programs to enhance public safety.

Policy S7-7 Coordinate with the San Bernardino County Fire and Sheriff's Departments and other appropriate agencies for the provision of adequate equipment and personnel, as well as expanded levels of service when needed.

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 programs and measures contained in the Regional Reduction Plan were compared to applicable public service policies to determine if any inconsistency exists.

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?

The Regional Reduction Plan would not increase resident population in the Town. Demand for fire protection services is based on population. The nature of the project would not affect the demand for fire services. Therefore, there would be ***no impact***.

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 police protection?

The Regional Reduction Plan would not increase resident population in the Town. Demand for police protection services is based on population. The nature of the project would not affect the demand for police services. Therefore, there would be ***no impact***.

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?

The Regional Reduction Plan would not increase resident population in the Town. Demand for school services is based on population. The nature of the project would not affect the demand for schools or school services. Therefore, there would be ***no impact***.

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 libraries?

The Regional Reduction Plan would not increase resident population in the Town. Demand for public services is based on population. The nature of the project would not affect the demand for public services. Therefore, there would be ***no impact***.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to public services 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

National Fire Protection Association (NFPA). 2013. NFPA 1710 website. 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.

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

———. 2012a. *Technical Background Report to the Safety Element of the Yucca Valley General Plan*, September.

———. 2012b. *Town of Yucca Valley General Plan*. Safety Element Hearing Draft, December.

4.21.15 Recreation

This section of the EIR analyzes the potential environmental effects on public parks and other recreational facilities in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), and the Open Space and Conservation Element of the Yucca Valley General Plan (2013). 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

The Town of Yucca Valley provides a variety of recreational opportunities in the Town and nearby open space areas, including community parks, neighborhood parks, school recreation facilities and recreational trails for bicycles and hiking. The locations of the Town's neighborhood, community, and regional parks are illustrated in Figure 4.21.15-1 (Parks and Recreational Trails). The Town's current inventory of park and recreational facilities is classified into six category classifications (Yucca Valley 2013).

Community Parks

A community park (15 to 40 acres) is planned primarily to provide opportunities for organized activities and sports, although individual and family activities are also encouraged. Community parks can also provide indoor facilities to meet a wider range of recreation interests. Community parks serve a larger area and offer more facilities. As a result, they require more support facilities, such as parking, restrooms, and covered play areas. Community parks usually have sport fields or similar facilities as the central focus of the park. Their service area has roughly a 2- to 3-mile radius.

Neighborhood Parks

Neighborhood parks are designed primarily for non-supervised, nonorganized recreation activities. They are generally small in size (3 to 15 acres) and serve people living within approximately 0.5 mile of the park. Since these parks are located within walking and bicycling distance of most users, the activities they offer serve the entire neighborhood, including children. Typical facilities found in a neighborhood park include: playgrounds, picnic areas, trails, open grass areas for passive use, outdoor basketball courts, and multi-use open grass areas for practice field sports.

Natural Open Space Parkland

Two parks—North Park and South Park—totaling approximately 120 acres, are preserved as natural open space on land owned by BLM and leased to the Town. North Park is located in the foothills of the San Bernardino Mountains near the west end of the Town, and South Park is located in the Little San Bernardino Mountains near the south Town boundary. This open space provides opportunities for hiking, bird watching, and enjoying panoramic views of the high desert and surrounding mountains.

Special Use Areas

Special use areas are sites often occupied by a specialized recreation facility. Some uses that fall into this category include community gardens, single purpose sites used for a particular field sport, or sites occupied by recreation buildings.

Regional Parks

Regional parks are large recreation areas designed to serve an entire region beyond the Town limits. Often they are acquired to provide a specific and sometimes unique recreation opportunity. Most frequently they are owned and maintained by a County agency and are complementary to, but not included as part of, the Town's parkland inventory.

Regulatory Framework

Federal

United States National Park Service

The National Park Service was founded in 1916 to maintain and care for the 400 national parks within the United States. Joshua Tree National Park is located on the southern boundary of the Town, shown in Figure 4.21.15-2 (Conservation Areas).

United States Forest Service and National Forests

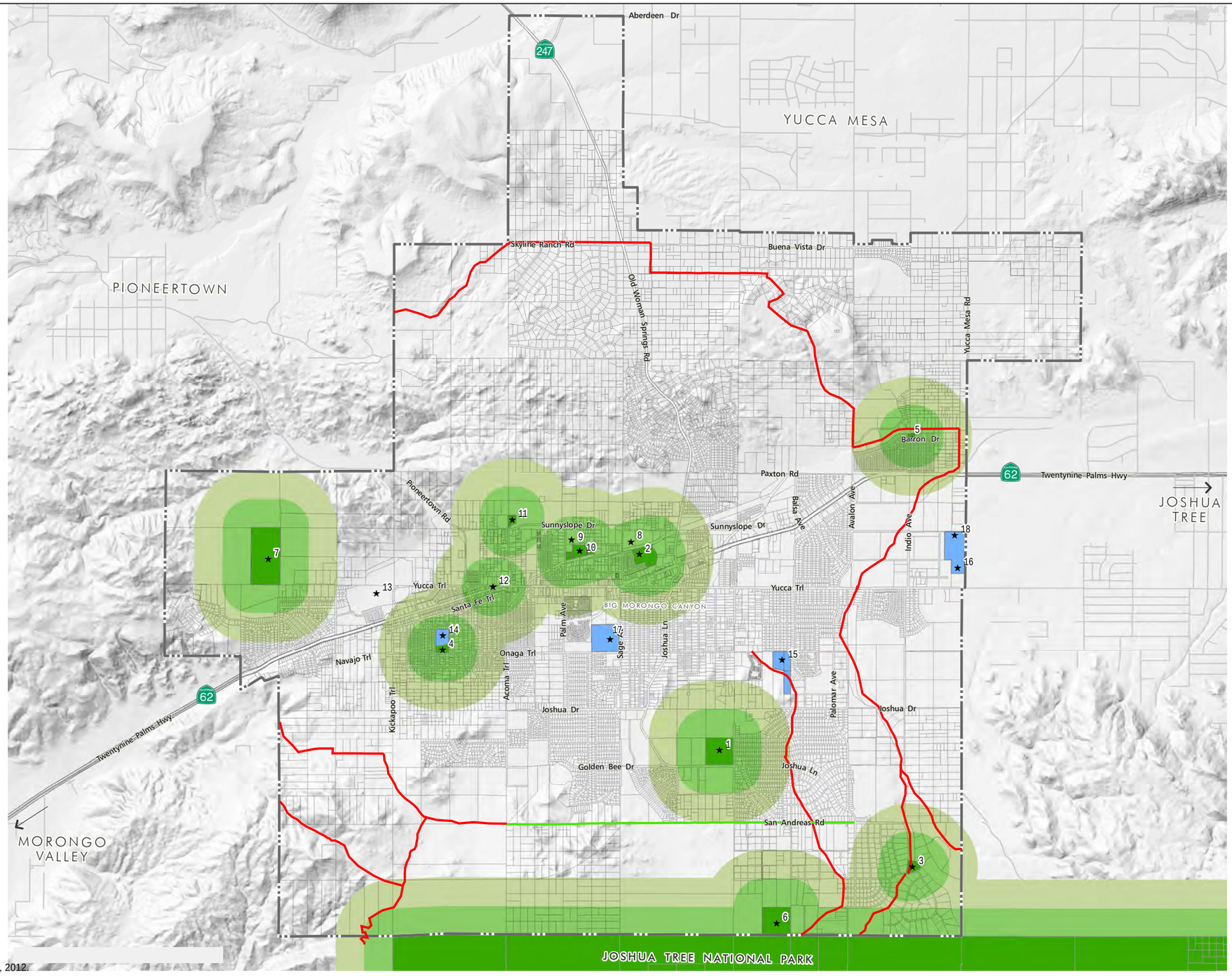
Established in 1905, the Forest Service is an agency of the U.S. Department of Agriculture. The Forest Service manages public lands in national forests and grasslands. The San Bernardino National Forest (SBNF) is the nearest maintained national recreational area within the region.

San Bernardino National Forest

The SBNF is located approximately 15 miles west of Yucca Valley. It is situated in the San Gabriel, San Bernardino, San Jacinto, and Santa Rosa mountains and includes the vacation resort areas of Big Bear Lake, Lake Arrowhead, Mount San Jacinto, and the San Gorgonio Wilderness. The US Forest Service manages the 665,753-acre SBNF, 456,928 acres of which are in San Bernardino County. The SBNF consists of 500 miles of trails. Aside from camping, SBNF provides outdoor activities like hunting, fishing, recreational shooting, hiking, backpacking, mountain biking, horseback riding, and boating in the warmer months; and cross-country skiing, snowboarding, and snowmobiling in the winter months. Also associated with SBNF activities are volunteer organizations and trails associations.

Joshua Tree National Park

Joshua Tree National Park has been a National Monument since 1936, and was declared a National Park in 1994, after passage of the California Desert Protection Act. The park encompasses approximately 800,000 acres and has over one million visitors a year. The park appeals to diverse groups offering many different forms of recreational activities such as nature walks, hiking, mountain biking, horseback riding, camping, rock climbing, bird watching and educational programs. Along with the park's headquarters and visitors center, park facilities also include nine campgrounds with tables, fire pits and toilets.



PARKS

- Existing and Proposed Parks
- 1/4 Mile
- 1/2 Mile

Community Parks

- ★ 1, Essig Park
- ★ 2, Community Center Park

Neighborhood Parks

- ★ 3, Jacobs Park
- ★ 4, Machris Park
- ★ 5, Paradise Park

Natural Land/Open Space

- ★ 6, South Park
- ★ 7, North Park

Special Use Parks

- ★ 8, Sunnyslope Park BMX Track
- ★ 9., Remembrance Park

Other Open Space Areas

- ★ 10, Brehm Youth Park
- ★ 11. Pop Rauch Park
- ★ 12, Desert Christ Park
- ★ 13, Blue Skies Country Club

Schools

- ★ 14, Yucca Valley Elementary School
- ★ 15, Onaga Elementary School
- ★ 16, La Contenta Middle School
- ★ 17, Yucca Valley High School
- ★ 18, Sky High School

Public Schools

TRAILS

- Multi-Use Trails
- Riding Trails

0 1,500 3,000 6,000

NORTH
SCALE IN FEET

***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.15-1
Parks and Recreational Trails

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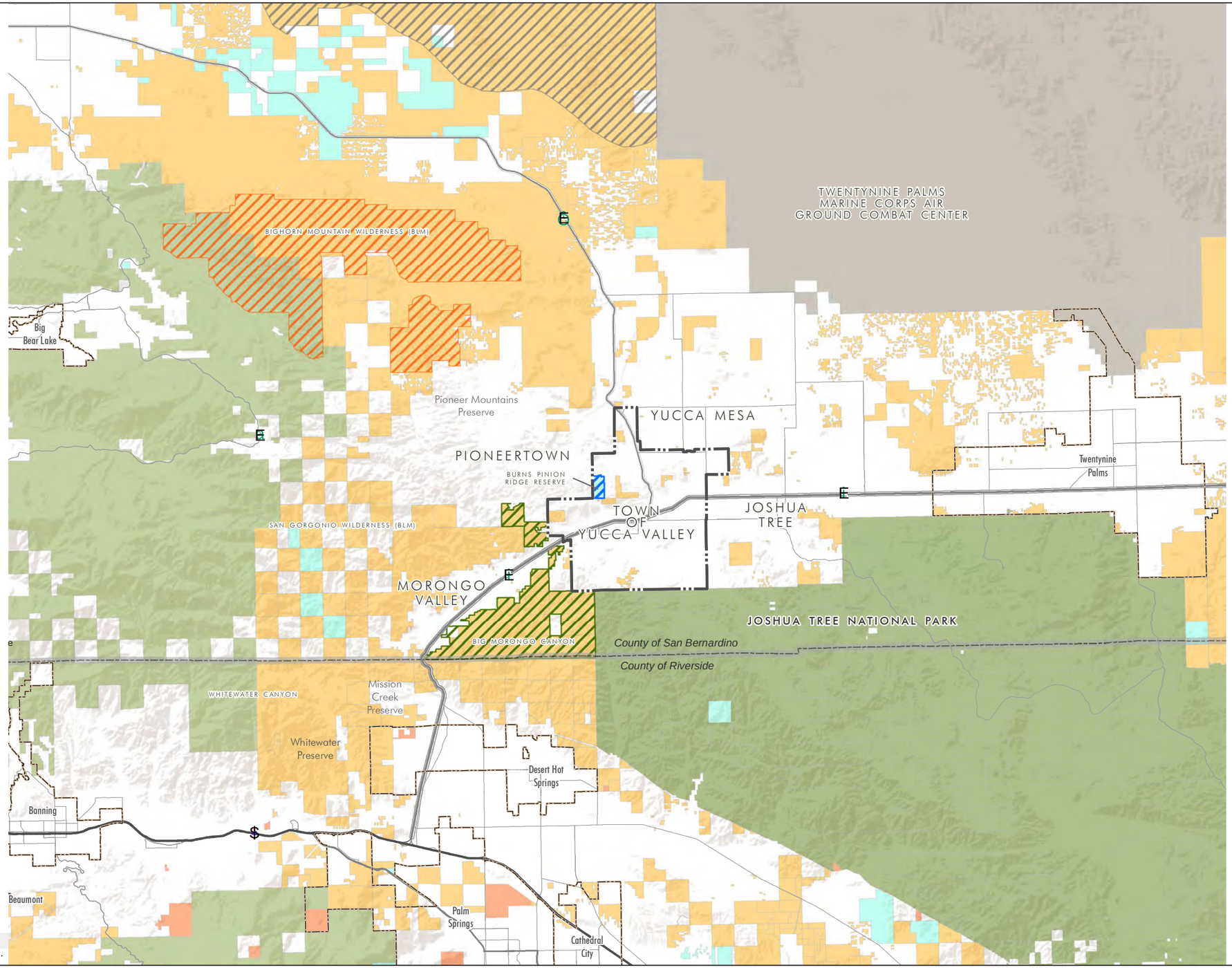

***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.15-2
Conservation Areas

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State

Quimby Act

The Quimby Act (California Government Code 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.

California Department of Park and Recreation and State Parks

California Department of Parks and Recreation maintains 280 state park units throughout California. The closest State Park to the Town of Yucca Valley is the Indio Hill Palms Prop located approximately 40 miles south of the Town.

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 seven-member commission provides a citizen body responsible to communities and the people of San Bernardino County to recommend policy regarding the development and operation of a well-balanced system of Regional Parks. The Regional Parks Commission oversees the establishment and administration of appropriate policies and informs the County Board of Supervisors of activities related to the Regional Parks Department. There are no regional parks in the immediate vicinity of the Town. The closest regional park to the Town of Yucca Valley is the Yucaipa Regional Park.

Yucaipa Regional Park

Yucaipa Regional Park is located approximately 50 miles west of Yucca Valley. The Yucaipa Regional Park is a day-use and camping park near Interstate 10 in the City of Yucaipa. It offers a wide range of outdoor recreation including: fishing in three lakes, a swim complex with dual flume water slides, and sandy beach area. Camp sites and group shelters are available and offer panoramic views of the San Bernardino Mountains and Mountain San Gorgonio.

Local

Town of Yucca Valley Parks and Recreation Master Plan

The Parks and Recreation Master Plan (Master Plan) is based on the vision that recreation facilities and open space are important resources within the Town of Yucca Valley, enhancing community health, enriching the lives of residents, and contributing to a unique community identity and quality of life. The plan provides a roadmap for planning of current and future community park facility and is an implementation tool of the General Plan, providing strategies for addressing the General Plan's goals and policies.

Big Morongo Canyon Preserve

Big Morongo Canyon Preserve, which abuts the west end and southwest corner of the Town, is located in the Little San Bernardino Mountains and covers approximately 31,000 acres, with elevations ranging from approximately 600 feet above mean sea level on the canyon bottoms to approximately 3,000 feet above mean sea level on the ridgelines. Because of its ecological importance to the region, the Big Morongo Canyon Preserve was designated as an Area of Critical Environment Concern by BLM in 1982. This Preserve protects one of the ten largest cottonwood and willow riparian habitats in California as well as a variety of other ecosystems. Big Morongo Canyon Preserve is managed by BLM, and a small portion—approximately 147 acres—is managed under a cooperative agreement with San Bernardino County to protect rare and endangered wildlife, enhance sensitive riparian zones, promote the growth and restoration of a wide variety of plants, and offer educational opportunities (Yucca Valley 2013).

Burns Piñon Ridge Reserve

The 306-acre Burns Piñon Ridge Reserve is located within the northwestern limits of the Town. It is characterized by a rugged, boulder-strewn landscape composed of a series of shallow canyons along with steep, rocky ridges of sculptured granite. The Reserve, which shows little evidence of disturbance from human activities or grazing, has a diverse mixture of flora and fauna that is characteristic of its unique location as a transition between the lower desert, the upper desert, and the mountains as well as transition area between three floristic regions: the Transverse Range, Sonoran Desert, and Mojave Desert. Habitats protected on the Reserve include pinyon and juniper woodland with elements of Joshua tree woodland and montane chaparral, desert wash, and freshwater seep. This Burns Piñon Ridge Reserve is a part of the University of California Natural Land and Water Reserves System (Yucca Valley 2013).

Pioneertown Mountains Preserve

The Pioneertown Mountains Preserve is located northwest of the Town and covers approximately 25,500 acres from the San Bernardino Mountains down into the Pioneertown Valley in the Mojave Desert. Elevations within the Pioneertown Mountains Preserve range from approximately 4,000 feet in the Pioneertown Valley to approximately 7,800 feet in the San Bernardino Mountains. The Pioneertown Mountains Preserve supports year-round riparian corridors through Pipes Canyon and Little Morongo Canyon, and provides important wildlife corridors between Joshua Tree National Park to the south of the Town and the Bighorn Mountains Wilderness to the north of the Town. The Pioneertown Mountain Preserve is owned and operated by the Wildlands Conservancy (Yucca Valley 2013).

San Gorgonio Wilderness

The San Gorgonio Wilderness is located west of the Town boundary and covers approximately 95,000 acres in Riverside and San Bernardino counties. The topography within the San Gorgonio Wilderness changes rapidly from canyons and low, rolling foothills to steep rugged mountain. Elevations range from approximately 2,300 feet above mean sea level to approximately 11,500 feet above mean sea level. With its diverse landscape and large elevation range, the San Gorgonio Wilderness is a unique transition zone between the desert, mountain, and coastal ecosystems. The San Gorgonio Wilderness is managed jointly by the BLM and the United States Forest Service (USFS).

Proposed Sand to Snow National Monument

The California Desert Protection Act of 2011 proposed the convergence of the Mojave and Colorado Desert and the San Bernardino Mountains as the Sand to Snow National Monument. The area would be located west of the Town and would include approximately 134,000 acres of federal land between Joshua Tree National Park and the San Bernardino National Forest, including the San Gorgonio Wilderness and the Big Morongo Canyon Preserve. The proposed Sand to Snow National Monument would rise from approximately 1,400 feet above mean sea level at the Mojave Desert floor up to 11,503 feet above mean sea level at San Gorgonio Mountain. The proposed monument would include one of California's most diverse landscapes and would also protect wildlife corridors between the San Bernardino Mountains, San Jacinto Mountains and Joshua Tree National Park. This monument would be managed jointly by the BLM and the USFS. The Town will continue to monitor monument planning efforts.

Town of Yucca Valley Municipal Code

Municipal Code Title 11 (Peace, Morals and Safety), Chapter 11.80 (Use of Parks), declares that the town of Yucca Valley's public parks are provided and maintained for active and passive public recreation and for Town sponsored recreational, cultural, civic and social activities, programs and events. This chapter is designed to ensure the maximum safety and enjoyment of the parks by residents and visitors.

Town of Yucca Valley General Plan

The Hearing Draft Open Space Element of the Yucca Valley General Plan includes the following policies related to recreational facilities:[17]

Policy OSC 1-1 Use flood control and utility easement areas to develop a multi-use trail system that links parks and recreational areas, commercial areas, residential areas, and other open space areas.

Policy OSC 3-1 Develop a recreational trail network for hiking, mountain biking and riding that links the Town's parkland, community facilities, and open space areas, and other amenities.

Policy OSC 2-1 Plan, develop, and maintain quality and adequate outdoor recreational and open space areas that utilize and enhance the unique aspects of the desert environment and provide amenities that are responsive to the needs of residents and visitors.

Policy OSC 2-2 Ensure that pedestrian facilities comply with Americans with Disabilities Act (ADA) requirements.

Policy OSC 2-3 Develop parklands in a manner that preserves the Town's natural resources to the greatest degree practicable.

Policy OSC 2-4 Locate new parks in or near residential areas relatively isolated from existing natural open space areas or community and neighborhood park facilities.

Policy OSC 2-5 Strengthen partnerships with the Morongo Unified School District for the joint use, maintenance, and development of school facilities for parks and recreational use.

[17] This is 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 OSC 2-6 Site and maintain recreational facilities to meet the needs of all segments of the community including use for activities, relaxation and social interaction.

Policy OSC 3-2 Ensure new development provides adequate pedestrian, equestrian, and bicycle trail facilities to connect to the Town-wide recreational system.

Policy OSC 3-3 Design major drainage facilities, including debris basins and flood control washes and channels, to maximize their enhancement as multi-use community open space amenities, such as hiking and equestrian trails, consistent with the functional requirements of these facilities.

Policy OSC 3-4 Evaluate the location of existing and proposed trails and trailheads with proposed development and establish the appropriate easements to preserve those facilities.

Project Impact Evaluation

Thresholds of Significance

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

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

Analytic Method

The programs and measures contained in the Regional Reduction Plan were reviewed for potential impacts to parks, recreational facilities in and near the Town of Yucca Valley.

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?

The Regional Reduction Plan would not increase resident population in the Town. Demand for parks and recreational facilities are based on population. The nature of the project would not affect the demand for recreational facilities. Therefore, 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?

The Regional Reduction Plan does not include recreational facilities. Therefore, there would be ***no impact***.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to recreation 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

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

Yucca Valley, Town of. 1995a. *Town of Yucca Valley General Plan*, December.

———. 1995b. *Draft Environmental Impact Report for the Yucca Valley Comprehensive General Plan*, September.

———. 1999. *Town of Yucca Valley Parks Master Plan*, December.

———. 2013. *Town of Yucca Valley General Plan*. Draft Open Space and Conservation Element, February.

———. n.d. *Town of Yucca Valley Municipal Code*.

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4.21.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), the Southern California Association of Governments (SCAG) Regional Transportation Plan and SCS (2012), the SCAG Regional Comprehensive Plan (2009), and the San Bernardino Associated Governments (SANBAG) Congestion Management Program (2012). 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 Town of Yucca Valley circulation system includes a highway, an airport, and a system of arterial and local streets with automobile, transit, pedestrian, and bicycle transportation options. There is no railway or light rail service in the Town of Yucca Valley.

Roadway Network

The Town of Yucca Valley has the following roadway classifications for local roadways within the Town:

- **Major Highways** can accommodate up to six lanes of traffic with medians. These facilities carry high traffic volumes and serve as the primary thoroughfares across the Town. For reasons of safety and traffic flow, the number of driveways along arterials is limited. The two Major Highways in the Town, State Route 62 and State Route 246 are currently constructed with four lanes of travel divided with and without medians.
- **Highway** can accommodate up to four lanes of traffic of divided with or without medians. This facility also carries high traffic volumes of traffic that transition between a Major Highway and the State Highway system outside of Town. State Route 247 leading out of Town is the only roadway with this designation.
- **Arterials** can accommodate up to four lanes of traffic with or without medians. These facilities carry moderate volumes and serve as the primary thoroughfares within Town. Most arterials in the Town are currently constructed with two travel lanes. Only portions of Yucca Trail and Onega Trail currently have four lanes of travel.
- **Major Collectors** can accommodate four lanes of traffic. These roadways do not include street medians. Major Collectors serve also serve as the primary thoroughfares within the Town and provide a transition between higher-speed roadways and Collectors.
- **Collectors** can accommodate two lanes of traffic. These roadways do not include street medians. Collectors primarily provide a transition between local streets and higher-speed roadways. These

roadways provide local access; as such, they typically have low design speeds. Driveway access is permitted on these roadways.

- **Industrial Roads** are local roadways serving industrial uses within the Town that can accommodate up to two lanes of traffic. These roadways do not include street medians.
- **Local roads** are neighborhood roadways with one travel lane in each direction and are narrower in width than collector streets. These streets typically accommodate on-street parking and have the lowest design speeds. Through traffic is not encouraged on local streets.
- **Private roadways** are neighborhood roadways not dedicated to the Town and not maintained by the Town. These streets are typically maintained by a homeowners association, as most are not paved or improved to Town standards. For new residential developments, these streets must be designed Town standards for emergency access and accessibility.

Figure 4.21.16-1 (General Plan Roadway Classification Plan) shows the various roadway classifications.

Airports

Yucca Valley Municipal Airport

The Yucca Valley Municipal Airport is located north of State Highway 62 and immediately east of State Highway 247. Yucca Valley Airport is a privately owned, long term leased to Yucca Valley Airport District, public use airport that is classified in the National Plan of Integrated Airport Systems as a general aviation, basic utility facility. The airport serves the Town of Yucca Valley and several of the surrounding small communities, as well as the Joshua Tree National Park with general aviation air service. Yucca Valley Airport is open to the general public and to visiting aircraft 24 hours a day. Yucca Valley Airport does not have any commercial passenger services; it does provide services such as aircraft maintenance and flight training.

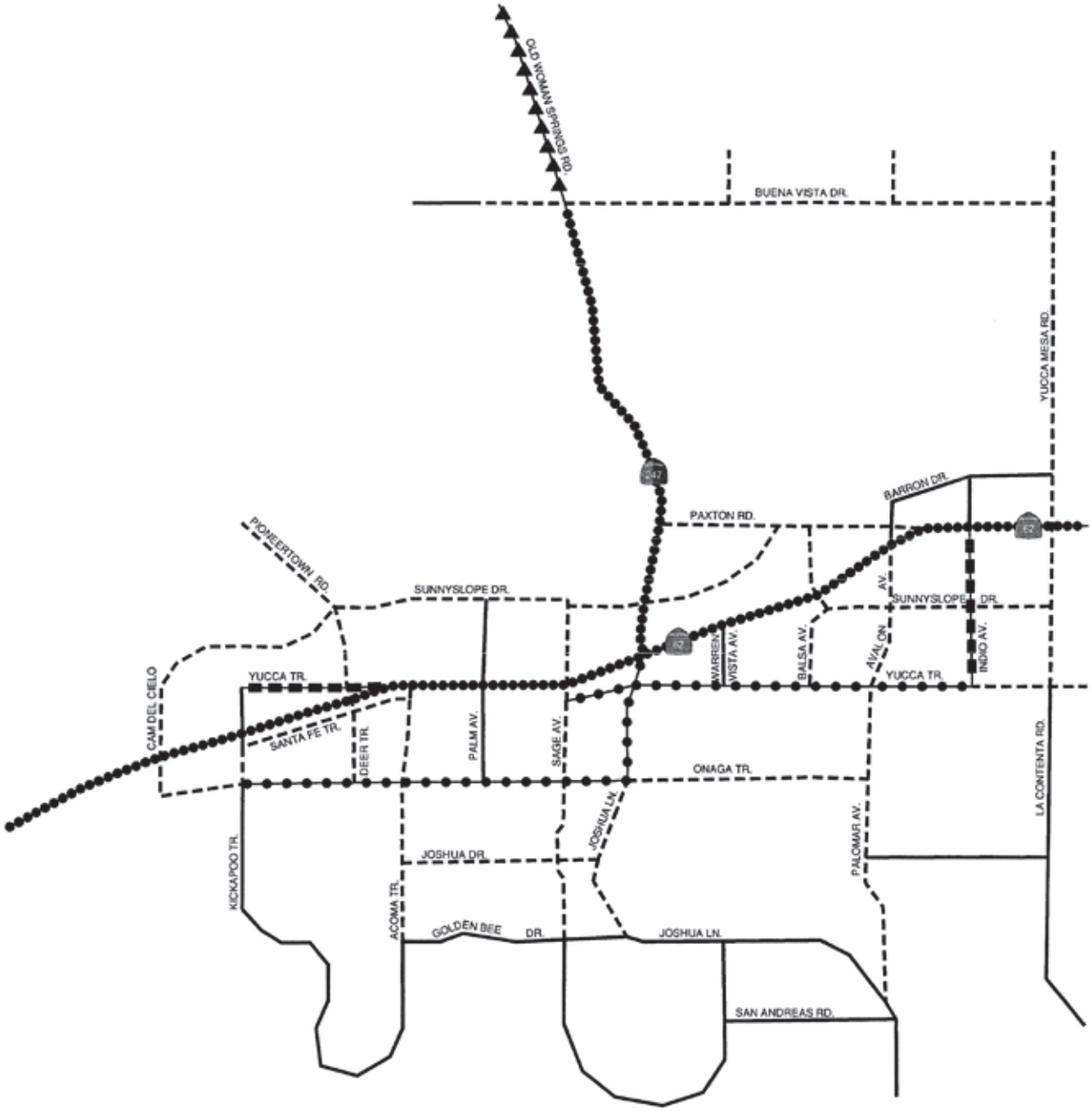
Transit

Transit service in the Morongo Basin, including the Town of Yucca Valley, is provided by the Morongo Basin Transit Authority (MBTA). Transit service in the Town of Yucca Valley is limited to bus and paratransit services.

Fixed-Route Bus Service

The Town of Yucca Valley is currently served by four MBTA bus routes. The routes are described below:

- **Route 1**—From the Marine Corps Base to Yucca Valley. Regional route providing service Monday through Saturday.
- **Route 7A**—Yucca Valley Loop-Park & Ride lot to Downtown Yucca Valley and the Avalon Medical Center. Local route providing service Monday through Friday.
- **Route 7B**—Yucca Valley Loop-South. Local route providing service Monday through Friday.
- **Route 15**—From the Marine Corps Base with stops in Yucca Valley, to Palms Springs. Regional route with service only being provided Friday through Sunday.



***Source*:** Old Town Yucca Valley Specific Plan Program EIR, 2007.

Figure 4.21.16-1
General Plan Roadway System

ATKINS

- **Route 21**—From Yucca Valley, to Landers. Regional route with service only being provided Monday through Friday.

Bus service is provided on an hourly basis from 6:00 AM to 10:00 PM daily during the week. Weekend service is also provided on a limited basis. Expansion of bus service is not planned for the Yucca Valley area in the near future (Town of Yucca Valley 2012b).

Para-Transit Service

The MBTA provides persons with disabilities and the elderly a specialized transit service through its Ready Ride program. Ready Ride is a service designed to meet the requirements of the Americans with Disabilities Act (ADA). The purpose of the program is to provide equal access to public transportation for persons who are physically or cognitively unable to use regular bus service. The service operates through a reservation system. Elderly and handicapped passengers make a reservation with MBTA and are picked up and dropped off at the requested destinations. The Ready Ride program operates mini-busses to serve its customers. The busses are equipped with lift equipment for wheel chairs and can transport up to 16 passengers.

Pedestrian Facilities

Pedestrian circulation in the Town of Yucca Valley is provided for through a limited number of sidewalks. Sidewalks are available in newer residential developments and within the Town's center core. A major impediment to pedestrian circulation in the Town of Yucca Valley is State Highway 62, which runs from east to west across the Town. Most portions of the highway allow high travel speeds, which makes crossing the highway a safety hazard, as there are limited crossing opportunities.

Bicycle Facilities

The Town's bicycle circulation system is shown on Figure 4.21.16-2 (Bike Trail System). Currently 5 linear miles of Class I Bikeways have been constructed in the Town. Class I Bikeways are intended for the exclusive use of bicycles. Additional Class I Bikeways are planned for construction throughout the Town along both north/south and east/west roadways as shown in Figure 4.21.16-2 that provide access between residential areas, schools, parks, commercial areas, and the Town's Transit Center.

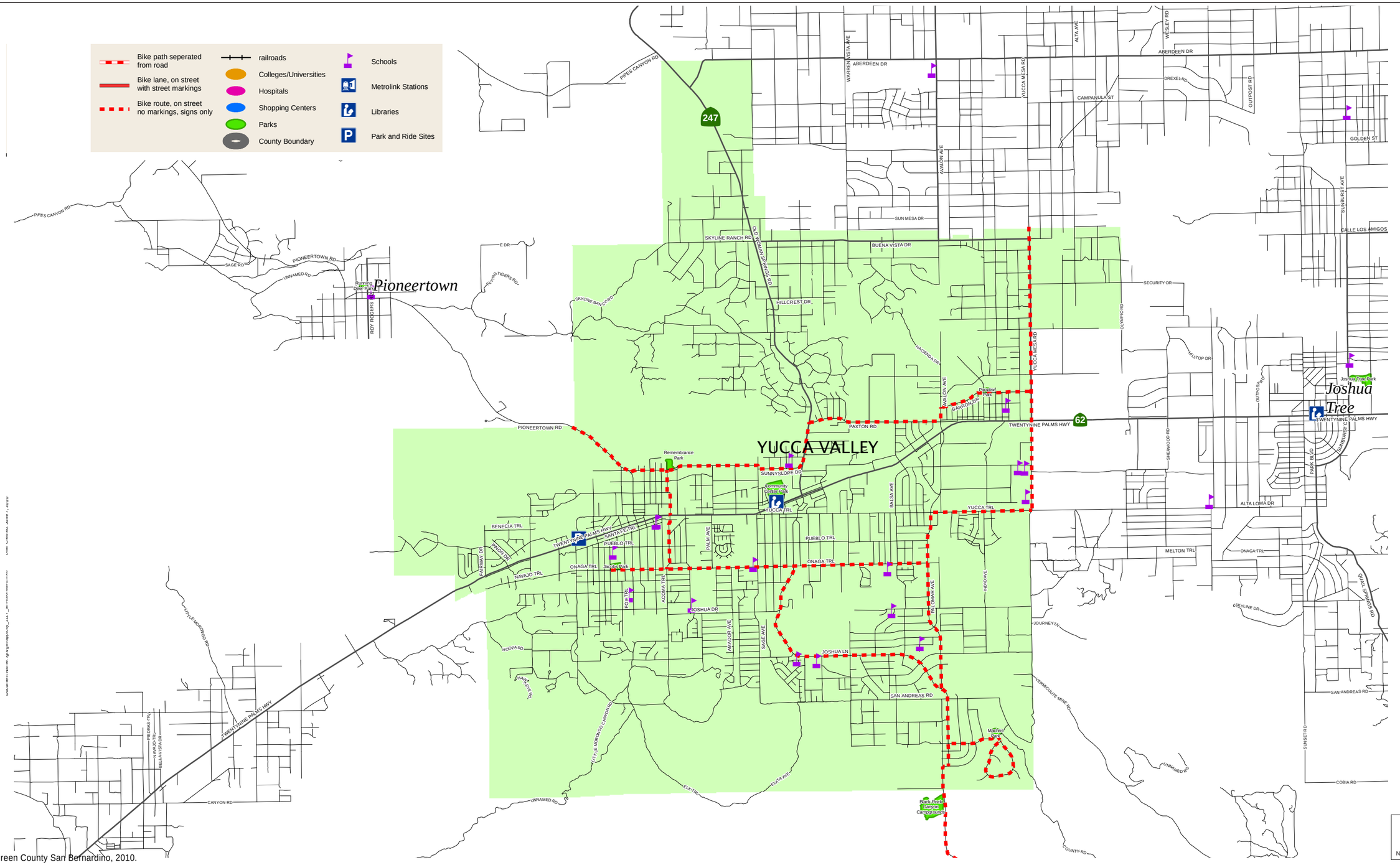
Regulatory Framework

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).



***Source*:** Green County San Bernardino, 2010.

Figure 4.21.6-2
Bike Trail System

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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 inter-city 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

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

Regional

Southern California Association of Governments (SCAG)

SCAG is the designated 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. SCAG regional plans cover San Bernardino County, which includes the Town, and five other counties within Southern California.

Regional Comprehensive Plan

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

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

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

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

- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 RTP and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

SCAG Compass Growth Visioning

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

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

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

San Bernardino Associated Governments (SANBAG)

SANBAG is an association of local San Bernardino County governments. It is the MPO for the county, with policy makers consisting of mayors, council members, and county supervisors, and the funding agency for the county's transit systems, which include Omnitrans, Victor Valley Transit Authority, MBTA, 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 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

Town of Yucca Valley Development Code

The Town's Development Code is the primary regulatory tool to implement the Circulation Element of the General Plan. The Development Code includes road improvement requirements for each zone. New developments are required to provide half-width street improvements, which primarily includes

improving a project's frontage. The Town's Engineering Division is responsible for ensuring that projects comply with the Town's General Plan and Development Code road improvement requirements.

Town of Yucca Valley General Plan

The Yucca Valley General Plan Circulation Element contains the following policies regarding transportation, mobility and traffic[18]:

Circulation Element

Policy 1 Prepare and maintain a master plan of roads, which sets forth detailed improvement and financing plans, and schedules implementation, which assure levels of roadway and intersection operations at LOS "D" or better during typical peak hours.

Policy 2 Coordinate and cooperate with Caltrans to assure preservation of capacity and maximized efficiency along State Highways 62 and 247.

Policy 3 Improve capacity on, and create new alternative east/west arterials and smaller capacity routes to enhance intra-town circulation and relieve congestion on Highway 62.

Policy 4 Participate and represent the Town's interests in circulation-related regional planning activities, and encourage acceptance of Town policies regarding regional transportation issues.

Policy 5 Encourage expansion of ridership and the mass transit system operated by the Morongo Basin Transit Authority with the Town and greater Morongo Basin

Policy 6 As a means of reducing traffic with work-related out-mitigation, make every reasonable effort to achieve a jobs/housing balance in the community.

Policy 7 Promote the use of multi-occupant modes of transportation and the shifting of employment-related trips out of current peak traffic periods.

Policy 8 Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Additionally, the Land Use and Air Quality Elements include the following policies to reduce vehicular travel:

Land Use Element

Policy 5 Maximize land use synergies and enhance the character and viability of commercial areas by providing an integrated mix of commercial, office, and residential uses.

[18] 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.

Air Quality Element

Policy 4 Pursue programs which reduce emission by creating a land use pattern which can be efficiently served by a diversified transportation system and which minimizes vehicle miles traveled.

Policy 5 Promote the safe and efficient movement of people and materials into and through the Town as a means of reducing the impact of automobiles on local air quality.

Town of Yucca Valley Level of Service Criteria

The Town of Yucca Valley uses a methodology based on the San Bernardino Congestion Management Program in determining the level of service (LOS) of roadway segments. LOS is a qualitative approach to describe roadway performance based on volume-to-capacity (V/C) ratios. The V/C ratio is a comparison of the estimated daily traffic volume of a segment of roadway and its maximum theoretical capacity (in terms of number of vehicles). The lower the ratio, the better the segment of roadway performs, meaning freer flowing traffic. Traffic congestion occurs as the number rises and approaches 1.0. Descriptions of LOS standards are provided in Table 4.21.16-1 (Roadway Level of Service Definitions). Free-Flow Speeds describe average speeds on roadway segments.

Table 4.21.16-1 Roadway Level of Service Definitions

LOS	*Volume-to-Capacity (V/C) Ratio*	*Free-Flow Speeds (miles per hour)*	*Interpretation*
A	0.00–0.60	>35	Free-flowing traffic.
B	0.61–0.70	28–35	Stable traffic flows, minimal traffic delays.
C	0.71–0.80	22–28	Stable traffic flows, potentially, moderate delays, semi-restricted maneuverability.
D	0.81–0.90	17–22	Moderate to substantial traffic delays, restricted maneuverability.
E	0.91–1.00	13–17	Significant traffic delays, minimal vehicle spacing and speeds.
F	>1.00	<13	Traffic stream breakdown, stop-and-go movement, extremely slow speeds.

SOURCE: Town of Yucca Valley (2012b).

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 SCAG's RTP with an adopted SCS, the Compass Growth Visioning, SANBAG CMP, and the San Bernardino County Non-Motorized Transportation Plan. The Regional Reduction Plan was also reviewed for potential traffic impacts that could result during implementation of the reduction measures.

Effects Not Found to Be Significant

Threshold	Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Implementation of the Regional Reduction Plan will reduce GHG emissions and vehicle miles traveled (VMT) associated with on road passenger vehicles within the region. The reductions measures identified for the Town of Yucca Valley do not include any on-road measures specifically designed to reduce GHG emissions from passenger vehicles. However, the Regional Reduction Plan would not interfere with implementation of the Yucca Valley General Plan policies related to mobility. General Plan Air Quality Element Policies 3 and 5 promote land use planning and safe and efficient movement of people and goods that reduces dependence on automobiles. The Yucca Valley General Plan Circulation Element Policy 5 ensures VMT reduction through greater transit opportunities and ridership. General Plan Circulation Element Policy 8 develops continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Implementation of the Town's reductions measures include energy efficiency standards for new development, energy efficiency retrofits for existing buildings, water conservation measures, and waste diversion programs that would not generate new vehicle trips in the Town. Construction of any new renewable energy infrastructure would require review by the Town's Planning staff for approval to ensure that the improvements do not interfere with planned transportation facilities. Energy-producing

facilities needed for implementation of the Regional Reduction Plan would be required to incorporate appropriate setbacks as specified in the Municipal Code to ensure there would be no impact to transportation routes as a result of implementation of the proposed project.

Therefore, the Regional Reduction Plan would not conflict with any 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 non-motorized travel. Further, because of Town review of new construction to ensure that energy facilities 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 Town of Yucca Valley, 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?

The CMP defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The last update of the CMP was completed by SANBAG in 2012. Implementation of the Regional Reduction Plan in the Town of Yucca Valley does not include an on-road measures that would require any infrastructure to be built on CPM roadways. As discussed in the previous section, implementation of the Regional Reduction Plan would not generate any new vehicle trips; therefore, it would not result in any new or worsened congestion in the Town. New construction of renewable energy facilities would be required to comply with the setback in the Town's Municipal Code and would be reviewed by the Town to ensure that adverse impacts to circulation in the Town would not occur. 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?

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)?

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?

The Regional Reduction Plan reduces GHG emissions Town-wide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, waste diversion, and water conservation programs. None of the reduction measures would alter emergency access or evacuation plans. 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?

The Regional Reduction Plan reduces GHG emissions Town-wide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, waste diversion, and water conservation programs. None of the reduction measures would alter alternative transportation facilities or decrease the safety of any facilities. As described above, energy-producing facilities needed for implementation of the Regional Reduction Plan would be required to incorporate appropriate setbacks as specified in the Municipal Code to ensure there would be no impact to transportation routes as a result of implementation of the proposed project. 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

San Bernardino Associated Governments (SANBAG). 2007. *Passenger Rail Short Range Transit Plan: Fiscal Year 2008–2012*, May

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4.21.17 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 Town of Yucca Valley from implementation of the Regional Reduction Plan. Data for this section were taken from the Yucca Valley General Plan (1995a), associated environmental documents (1995b), and the Hi-Desert Water District 2010 Urban Water Management Plan. 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 Town of Yucca Valley is located in the Warren Valley Groundwater Basin. The Town of Yucca Valley water supply is derived mainly from the Warren Valley Groundwater Basin and is provided by the Hi-Desert Water District (HDWD). HDWD primarily relies on four sources of water: Warren Valley Groundwater Basin, Ames/Means (Reche) Valley Groundwater Basin, and the State Water Project (SWP) through Mojave Water Agency (MWA) to recharge the Warren Valley Groundwater Basin, and a portion of the District's groundwater supplies are derived from septic system return flows (HDWD 2011).

Local Water Supply and Reliability

The HDWD (the District) serves a 57-square-mile service area including the Town of Yucca Valley and unincorporated areas within the County of San Bernardino. HDWD's local supply of water includes groundwater and septic system and irrigation return flows. The District obtains groundwater from two basins, the Warren Valley Basin and the Ames Valley Basin. These basins overlie an area defined in DWR Bulletin 118-03 as the Colorado River hydrologic region (Region 7), shown in Figure 4.21.17-1 (Warren Valley Groundwater Basin). HDWD's Service Area has limited natural supply, with a large portion of the area relying on MWA's ability to provide SWP water through the Morongo Basin Pipeline. The Warren Valley Basin (i.e., Town of Yucca Valley) was the first to experience obvious overdraft issues and relies on imported water and the three associated recharge sites to support the adjudication (HDWD 2011).

The Warren Valley Basin covers an area of approximately 26.9 miles (17,200 acres) and includes the water-bearing sediments beneath the Town of Yucca Valley and the surrounding area. The Warren Valley Basin is bounded on the north by the Pinto Mountain fault, on the south by the bedrock outcrop of the Little San Bernardino Mountains, on the east by a bedrock constriction called the "Yucca Barrier", and on the west by a bedrock constriction and a topographic divide between the Warren Valley and Morongo Valley. Based on information in the District's 2007 Water System Master Plan (WSMP), the Warren Valley Basin has an estimated total storage capacity of approximately 568,000 acre-feet, with an estimated usable storage capacity of approximately 160,000 acre-feet. The District's adjudicated groundwater rights in the Basin total 1,622 acre-feet per year (afy) (HDWD 2011).

The District's second source of local groundwater is obtained from the Ames Valley Basin, sometimes referred to as the Reche Basin). The District obtains approximately 20 percent of its water supply from the Ames/Means Basin to serve a portion of its service area that is located within the Basin. The Ames Valley Basin covers an area of approximately 169.7 square miles (110,000 acres) and is bounded by non-water-bearing rocks of the San Bernardino Mountains on the west, Iron Ridge on the north, and Hidalgo Mountain on the northeast. The Emerson, Copper Mountain, and West Calico faults also form part of the eastern and northern boundaries. A surface water drainage divide with the Copper Mountain Valley Basin forms the southern boundary. The total storage capacity of the Ames Valley Basin is estimated to be approximately 1,200,000 acre-feet. The Ames Valley region has been documented as having either historical or current overdraft conditions (HDWD 2011).

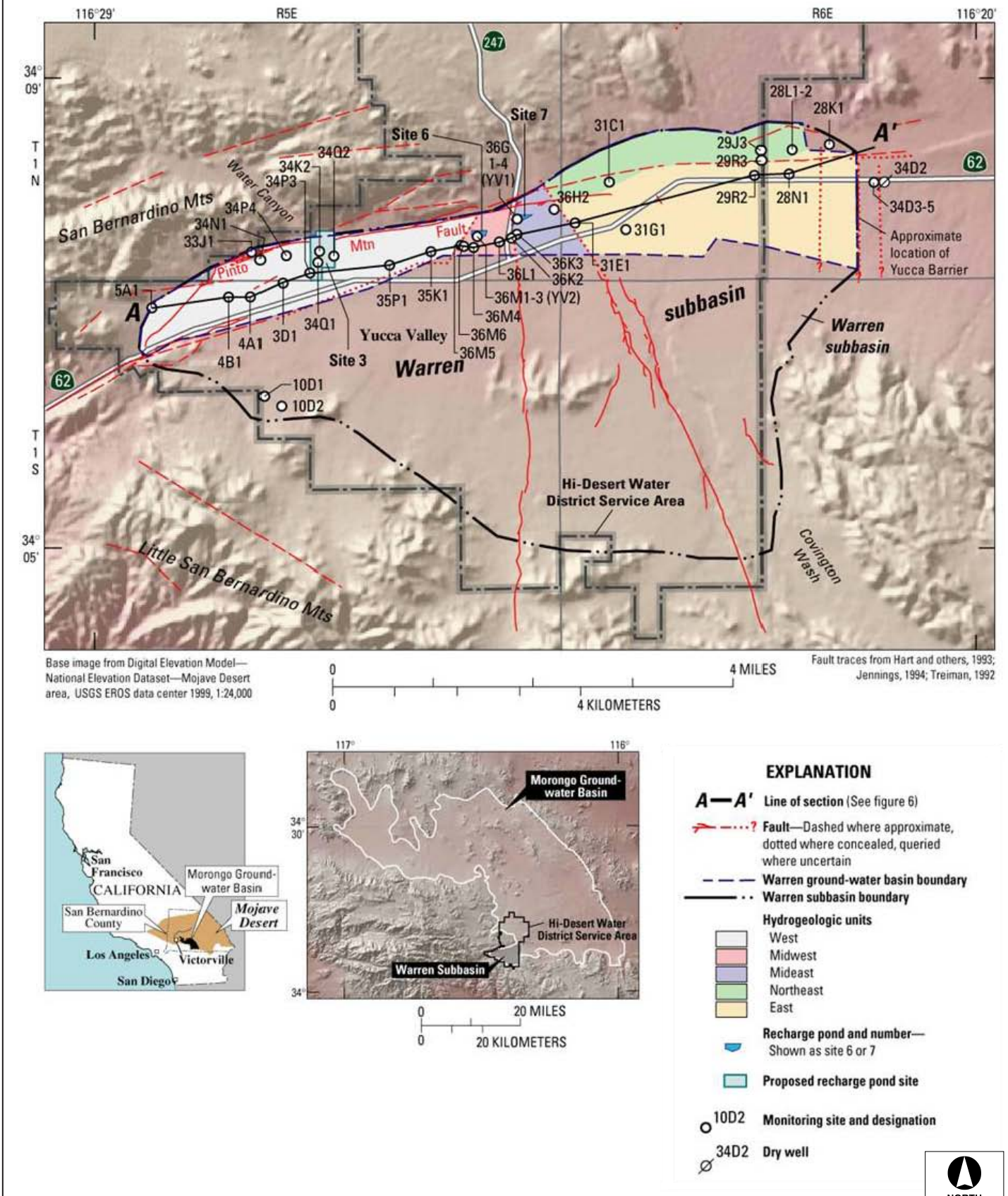
As mentioned previously, septic and irrigation return flows play a key role in the availability and reliability of groundwater supplies available to the District. Currently, all residents and businesses within HDWD's service area use septic systems and subsurface disposal systems to treat and dispose of domestic wastewater. After 2016, with the completion of the Wastewater Treatment and Water Reclamation Facility (WRF), the District is assuming no septic return. The District's 2007 WSMP reported that during a 13-year period when the average water pumped from the Warren Valley Basin was 2,575 afy, the estimated recharge due to septic and irrigation return was approximately 820 afy. The estimated return was 32 percent of the groundwater pumped. The 2007 WSMP included water supply projections that assumed a continued rate of 32 percent for return of pumped groundwater (HDWD 2011).

In accordance with the analyses and accounting performed by MWA and the District regarding the variability of imported water supplies, there are no inconsistent water sources that cause reduced deliveries to users within the District's service area. A potential exception may be the use of a well with water quality issues that may prohibit the pumping of that particular well. Currently, the District has in place a nitrate removal facility that treats two wells that were previously high in nitrate levels. The District currently operates a blending facility to comply with drinking water standards (HDWD 2011).

Imported Water Supply and Long-Term Reliability

The Southern California region faces a challenge satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies. A number of significant factors affecting delivery reliability are discussed below. Major sources of uncertainty include Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability associated with floods and earthquakes.

The HDWD's primary source of water is SWP supplies obtained from MWA through the Morongo Basin Pipeline. The MWA is HDWD's wholesale supplier for SWP water. MWA provides imported SWP water to agencies within its service area. Since deliveries began in 1995, this supply has been used to supplement HDWD's local supplies and help meet demand, recharge the Warren Valley Basin, and address historic groundwater overdraft. The District's access to SWP supplies is set forth in the 1991 Morongo Basin Pipeline Agreement between the District, the Bighorn-Desert View Water Agency (BDVWA), Joshua Basin Water District (JBWD), and MWA.



***Source*:** Town of Yucca Valley, 2012.

Figure 4.21.17-1

Warren Valley Groundwater Basin

ATKINS

Water Distribution Systems

As indicated above, the District obtains groundwater from two basins, the Warren Valley Basin and the Ames Valley Basin. HDWD currently obtains its groundwater from thirteen active wells. Twelve wells extract water from the Warren Valley Basin and one extracts from the Ames Valley Groundwater Basin. The total capacity of the active wells is approximately 6,200 gallons per minute (10.8 million gallons per day). All of the District's production wells currently satisfy all applicable Maximum Contaminant Levels (MCLs).

HDWD receives SWP supplies from MWA through the Morongo Basin Pipeline (MBP). MWA receives SWP water at four locations off the aqueduct. SWP water is transported from MWA to HDWD's service area via the 71-mile-long Morongo Basin Pipeline, which conveys SWP water from the California Aqueduct in the Mojave River watershed near Hesperia to HDWD. HDWD uses the imported water supply for recharge into the District's Warren Valley Groundwater Basin.

Wastewater Collection and Treatment

All of the customers within the HDWD service area currently dispose of their wastewater using individual sewage disposal systems, or septic tanks. Over 10,000 households and businesses in Yucca Valley currently dispose of their wastewater using subsurface sewage disposal systems, septic tanks, or on-site wastewater treatment package plants. The District plans to construct a new wastewater collection system, as outlined in the Sewer Master Plan (SMP). The SMP includes development of new sewer collection and treatment systems. While the existing septic system return flows have historically contributed to the overall groundwater resources within the District, they have also been identified as a contributor to higher nitrate levels in the Warren Valley Groundwater Basin. To protect the local water supply and to ensure the maximum long-term utilization of water resources throughout its service area, the District has developed a plan for a "Wastewater Treatment and Water Reclamation Project." The District plans to construct a water reclamation facility (WRF) to serve the substantial portions of its service area (HDWD 2011).

Solid Waste

Service is provided through Burrtec Waste Industries, the Town's franchise hauler, and is offered for all residential and commercial entities within Town limits. The Town is a member of the Mojave Desert and Mountain, Solid Waste Joint Powers Authority and participant in the County Waste Disposal Agreement, Education and Outreach Committee.

Burrtec has a series of programs designed to reduce the amount of waste that is taken to the landfill. Their waste reduction and recycling programs include separate containers for recyclable materials (paper, glass, aluminum, cardboard, etc.), and non-recyclable trash. Additional residential services provided by Burrtec include pick-up of bulky items, Christmas tree recycling, pick-up of electronic waste, and used motor oil collection. Information regarding items that are recyclable and which are non-recyclable, motor oil recycling and the recycling of electronic waste is provided on Burrtec's website. Burrtec operates three material recovery facilities (MRFs), six transfer stations and seven landfills in southern California. In a material recovery facility, workers sort and process recyclables. All three material recovery facilities operated by Burrtec are more than 50 miles from Yucca Valley. Transfer stations are facilities that serve

as local collection points prior to the final disposal site, where waste is separated into types, and sent to the appropriate final destinations.

The transfer station closest to Yucca Valley is Twentynine Palms Transfer Station, located in Twentynine Palms. The closest landfill is Landers Sanitary Landfill located in Landers (Yucca Valley 2012). Hi-Desert Water District Land Disposal Site is the only disposal site located in the Town of Yucca Valley.

San Bernardino County has adopted a Household Hazardous Waste and Oil-Recycling program that is free to county residents, in accordance with the California Integrated Solid Waste Management Act of 1989. There are a few facilities in the region where residents from Yucca Valley can drop off their unwanted household hazardous waste; the closest site is located in Joshua Tree, at 62499 29 Palms Highway. For a list of collection sites, their schedules of operation, and types of materials accepted, refer to the San Bernardino County Solid Waste Management Department.

Electricity

Electricity is provided to the Town of Yucca Valley by Southern California Edison (SCE). SCE's transmission system includes 500 and 220 kilovolt (kV) transmission lines, which are generally reduced to 66 kV transmissions at transformers at substations.

SCE has forecast energy demands for its service area to reach 118,497 gigawatt-hours by 2016 (CEC 2007). Energy consumption per capita in 2006 for the SCE area is about 7,300 kilowatt-hours. This is forecast to remain constant through 2016 (CEC 2007).

Natural Gas

The Southern California Gas Company (TGC) provides natural gas service to the Town of Yucca Valley. TGC has gas mains throughout the Town.

Telephone and Communications

Communication services and telephone, mobile phone, cable, and internet services, are provided by private companies in Yucca Valley, including Verizon Communications, CCI Computers, and Time Warner Telecommunications. Installation of cable services is provided by these private companies and supported by service fees.

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 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 that 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 non-federal 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 do 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 (Sections 116270–) was established a drinking water regulatory program within the Department of Health Services and provide drinking water standards for all water purveyors and distribution systems within the state. The law also requires regular sampling and record keeping of water supplies to ensure that potable water supplies are meeting the standards.

Senate Bill 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 urban water management plan (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).

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

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.

Septic System Guidelines

The Colorado River Regional Water Quality Control Board (RWQCB) issued the 'Guidelines for Sewage Disposal from Land Developments' in 1979 to provide an explanation of the principal statutory authority and administrative procedures under which it governs discharges from domestic septic systems not discharging waste through the surface and not covered by a National Discharge Elimination System (NPDES) permit. The guidelines identify reporting requirements to the RWQCB and San Bernardino County for existing subsurface sewage discharges, establish minimum wastewater discharge requirements

for filing a Report of Waste Discharge (WDR), identify soils reports and fee requirements, set minimum criteria for the subsurface discharge of domestic waste, and identify potential monitoring requirements.

San Bernardino County Environmental Health Department

Individual Sewage Disposal Systems (ISDS) serving more than four dwelling units must be reviewed and approved by the San Bernardino County Department of Environmental Health Services (DEHS) prior to issuance of a building permit to construct the septic system. Percolation reports and plot plans are reviewed to determine appropriate septic system design and location.

Colorado River Basin Water Quality Control Plan

Water quality and waste discharge standards are adopted and enforced by the Colorado River Basin RWQCB through its Water Quality Control Plan (Resolution No. R7-2008-0013), also known as the Basin Plan. The Basin Plan was most recently updated in March 2008. The Plan provides policies, objectives and guidelines for the maintenance and improvement of water quality in surface and groundwater bodies. The Plan implements the Porter-Cologne Water Quality Control Act discussed above. The Plan identifies existing and potential beneficial uses of waterbodies in the Basin. Administration of the NPDES program is the primary method for addressing point source pollution issues within the Basin. Nonpoint source pollution is addressed through the RWQCB's participation in the State-administered Nonpoint Source Pollution Control Program. No surface body waters are noted in the Basin Plan as having any beneficial use within the Town. However, the Oasis of Mara is noted as having existing or potential beneficial uses for groundwater recreation, recreation, warm freshwater habitat, wildlife habitat, and preservation of threatened or endangered species.

Local

Hi-Desert Water District Urban Water Management Plan

A UWMP prepared by a water purveyor documents the availability of an appropriate level of reliability of water service sufficient to meet the needs of various categories of customers during normal, single dry and multiple dry years. Having such a long-term reliable supply of water is essential to protect the productivity of California's businesses and economic climate. The California Water Management Planning Act of 1983, as amended, requires urban water suppliers to develop an UWMP every 5 years in the years ending in zero and five. The HDWD 2010 Urban Water Management Plan was adopted June 27, 2011. The HDWD is charged with providing safe, good quality, uninterrupted water at a reasonable pressure, to meet health and fire protection needs of that portion of the Town served by the public water system.

Hi-Desert Water District Sewer Master Plan

HDWD's 2009 SMP guides the District to plan, develop, and implement a sewer system that is cost-effective and meets the requirements of its customers. System elements that are necessary to meet the near-term and the build-out service conditions are identified in the plan. The SMP prepares a Capital Improvement Program (CIP) that includes all infrastructure facilities required to meet the District's near and long-term sewer system needs. The CIP includes a list of the recommended infrastructure, proposed

phasing and cost estimates. The CIP will provide the District with a sewer system planning road map for the future.

Town of Yucca Valley Master Plan of Drainage

The Town of Yucca Valley Master Plan of Drainage is a comprehensive drainage and flood control plan providing a guide for orderly development of flood control facilities to improve the physical environment of the Town and assuring public safety and adequate flood protection of property. Contained within the report is watershed review and evaluation, including natural drainage courses, floodplains and existing drainage facilities; detailed hydrologic and sediment yield studies, sizing of regional, secondary and local facilities; improvement recommendations, preparation of plan and profile drawings, and cost estimates.

Town of Yucca Valley Municipal Code

Town of Yucca Valley Municipal Code Title 6 (Health and Sanitation), Chapter 6.02 (Solid Waste Handling and Recycling Services), regulates solid waste handling and processing. The Code is an essential part of the comprehensive program for solid waste management of the Town and for the preservation of health and safety and the well-being of the public, the Town Council declares that it is in the public interest for the Town to make adequate provision for solid waste handling and recycling services, both within the Town and in response to regional needs consistent with the policies, standards and requirements of state law and all regulations adopted pursuant thereto. The Town is authorized and required to provide adequate solid waste handling and recycling services to implement state policy.

Town of Yucca Valley General Plan

The Yucca Valley General Plan includes the following policies related to utilities:[19]

Open Space and Conservation

Policy 3 With the approval of the local utilities and service providers and County Transportation/Flood Control Department, shall maximize use of flood control and utility easement areas to develop a multi-use trail system providing alternative transportation links to parks and open space areas.

Energy Resources

Program 1.A Implement and enforce California Title 24 building standards to reduce unnecessary energy use in new or substantially remodeled construction.

Program 3.C Research and promote the use of alternative fuels and energy sources and technologies (other than solar) for public buildings, vehicles and facilities.

Policy 2 Support efforts to develop alternative energy technologies which have minimum adverse impacts on the environment.

Policy 3 Promote energy conservation in public buildings and vehicles, to include a program of incentives to encourage the use of innovative methods of conserving energy.

[19] This is 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 5 Promote the use of alternative energy sources through the informing of Town residents of available alternative energy programs and rebates.

Policy 6 Promote the use of ride-sharing and mass transit as a means of reducing transportation related energy demand.

Air Quality Element

Program 5.D Initiate and encourage the use of alternative (clean) energy sources for transportation, heating and cooling. The Town shall also initiate pilot studies and/or demonstration programs in order to promote these uses.

Housing Element

Program 6.A Ensure that new development and rehabilitation efforts, whenever possible, maximize energy efficiency through architectural and landscape design and the use of renewable resources and conservation.

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?

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 generated in the Town. Additionally, development within the planning area either relies on septic systems or individual package treatment plants for treatment of wastewater. All septic systems or individual package treatment plants are required to obtain permits from the Town, the San Bernardino County Department of Environmental Health Services or the RWQCB prior to issuance of building permits. Therefore, there would be ***no impact***.

Threshold	Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The net result of these measures is the reduction in water consumption. Therefore, there would be ***no impact***.

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?

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 Town. The Proposed Project would not substantially change the drainage patterns on any site within the Town. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The net result of these measures is the reduction in water consumption. For these reasons, the Regional Reduction Plan results in better management of existing water supplies within the Town. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. These water conservation strategies will reduce the amount of wastewater going to wastewater treatment facilities. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Implementation of the Regional Reduction Plan does not result in an increase in solid waste generation. The Regional Reduction Plan includes water conservation strategies and energy efficiency improvements in new and existing buildings. 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?

Implementation of the Regional Reduction Plan does not result in an increase in solid waste generation. Recycling and solid waste processing would comply with the Town's Municipal Code Title 6 (Health and Sanitation), Chapter 6.02 (Solid Waste Handling and Recycling Services) which ensures compliance with and all federal, state, and local regulations related to solid waste handling, processing, and recycling. 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 Energy Commission. (CEC). 2007. *The Role of Land Use in Meeting California's Energy and Climate Change Goals*. Report CEC-600-2007-008-SD.

Hi-Desert Water District (HDWD). 2011. *2010 Urban Water Management Plan*, June.

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4.21.18 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 4.21-5 (Summary of Environmental Effects of Implementing Local Reduction Measures in Yucca Valley), 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 4.21.1 through 4.21.17 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 4.21.4 (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 4.21.5 (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 significant 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 4.21.3, 4.21.6, 4.21.8, 4.21.9, 4.21.12, 4.21.13, 4.21.14, 4.21.16, and 4.21.17 of this EIR, respectively.

References

Kostka, Stephan L. and Michael H. Zischke. 2005. *Practice under the California Environmental Quality Act*.

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