

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

SCH No. 2012111046

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

Prepared for

Governments
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Working Together

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October 2013

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4.12 CITY OF NEEDLES

4.12.0 Introduction to the Analysis

This section of the EIR analyzes the potential environmental effects in the City of Needles from implementation of the Regional Reduction Plan. The City of Needles is located on the far eastern side of San Bernardino County, in the Mojave Valley on the California/Arizona border, along the Colorado River (Figure 4.12-1 [Location Map]).

The site and city were founded as a result of the construction of the Atchison, Topeka, and Santa Fe Railroad, which crosses the Colorado River at this point. Route 66 also passes through Needles and brought many visitors to the city between the 1920s and 1960s. Needles is largely a residential community, with limited local employment dominated by tourism, government (local, state, and the Bureau of Land Management), utilities (Southwest Gas) and the BNSF Railroad. Residents in Needles often commute to locations in Arizona and Nevada for work.

The population of Needles was 4,844 in 2010, slightly up from 2000, although greatly decreased from 1990 when 5,191 people lived there, a decrease of approximately 7 percent. The Regional Reduction Plan analysis has assumed a 2 percent increase in both population and employment in Needles between 2010 and 2020, although this may be an overestimate given recent trends (employment decreased from 2008 to 2010; therefore, a 2 percent growth from 2010 by 2020 is actually less than 2008 employment). The City does not anticipate much new construction before 2020.

Table 4.12-1 (Socioeconomic Data for Needles) presents socioeconomic data for Needles including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

<i>Category</i>	2008	2020
Population	4,844	4,941
Housing (du)	1,918	1,956
Single-Family (du)	1,106	1,116
Multifamily (du)	812	840
Employment (jobs)	3,323	3,145
Agricultural (jobs)	1	6
Industrial (jobs)	444	533
Retail Commercial (jobs)	886	770
Nonretail Commercial (jobs)	1,993	1,836

du = dwelling unit

Two documents are used in reviewing the potential environmental impacts and mitigation within the City of Needles from implementation of the Regional Reduction Plan. The first document is the City of

Needles General Plan, which is the planning document for the City and includes the required General Plan elements and General Plan goals and policies. Within the General Plan are policies that are used in the environmental analysis to form thresholds of significance including the level of service (LOS) standard for traffic impacts, as one example, and the basis for programmatic mitigation measures. The second document is the Regional Reduction Plan City of Needles chapter that describes the reduction measures and reduction targets chosen by the City of Needles. This document is the proposed project as it pertains to the City of Needles.

■ Needles General Plan

The Needles General Plan contains the seven elements required by State planning law: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. The current General Plan was adopted in 1986; the Housing Element was adopted in 2005.

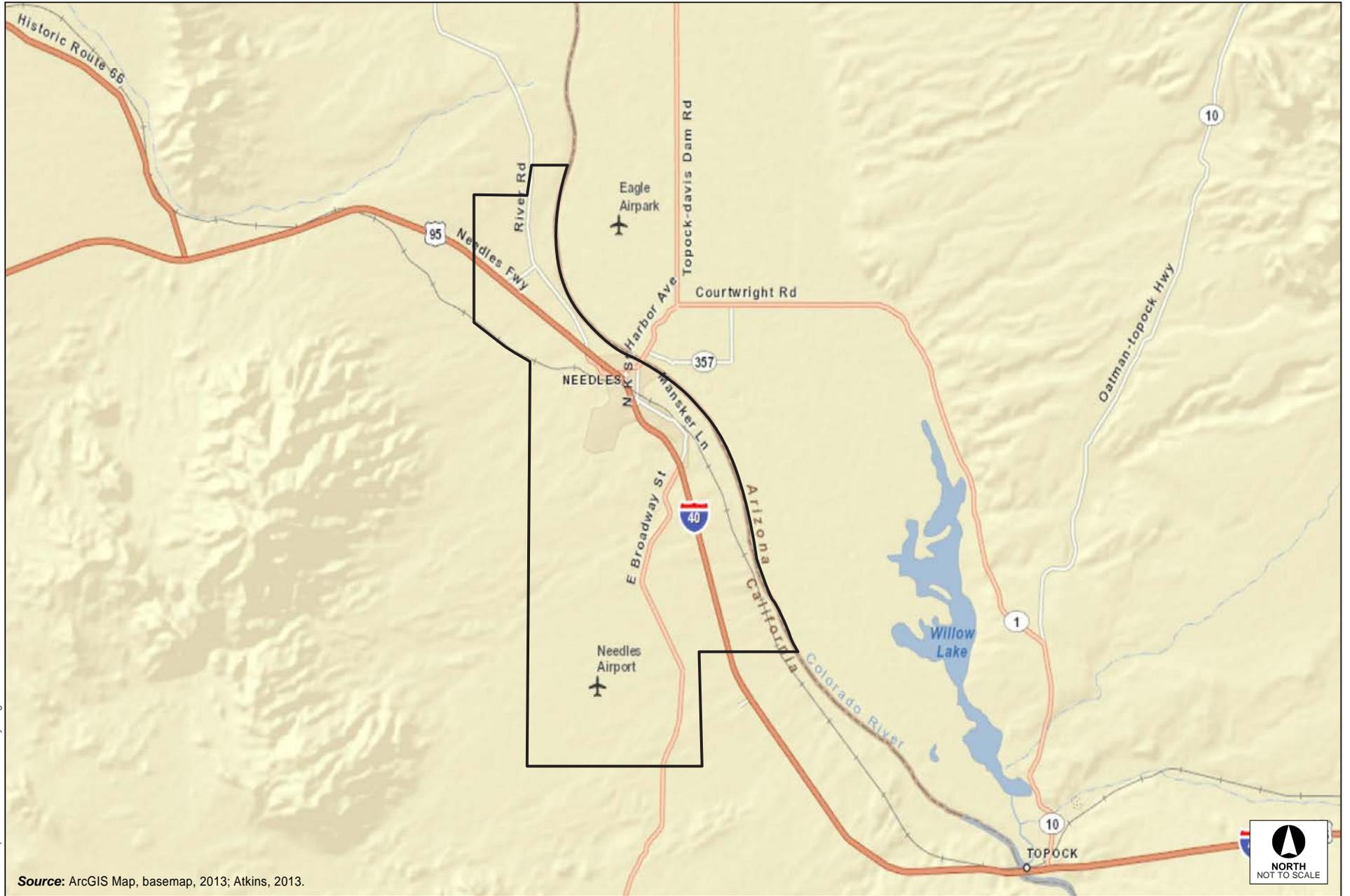
The Needles General Plan policies that are relevant to the Regional Reduction Plan implementation are listed in Table 4.12-2 (Needles General Plan Policies).

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

The City of Needles selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020. The City will meet and exceed this goal through a combination of state (~93 percent) and local (~7 percent) efforts. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Needles' on-road and building energy sectors in 2020. An additional reduction of 1,485 metric tons (MT) of carbon dioxide equivalents (CO₂e) will be achieved primarily through the following local measures, in order of importance: Energy Efficiency for Existing Housing (Energy-1); Solar Installations for Existing Housing (Energy-7); and Outdoor Lighting (Energy-2). Needles' Plan has the greatest impacts on GHG emissions in the building energy, wastewater treatment, and on-road transportation sectors. Although Needles is implementing sustainable development practices in both current projects as well as in policies in the City's General Plan, the SCS implemented in the Mojave Desert (Transportation-1) will not result in any measureable GHG reductions for Needles itself.

Figure 4.12-2 (Emissions Reduction Profile for Needles) shows Needles' 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 the 2008 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total ("2020 Plan"), representing the total emissions reductions achieved in 2020. As stated above, state/county reductions account for the majority (~93 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.12-3 (Emissions by Sector for Needles) presents emissions by sector, for both the 2020 BAU and the 2020 reduction or "Plan" scenarios. The largest emissions contributions are in the on-road transportation, building energy, and solid waste management emissions sectors.



Source: ArcGIS Map, basemap, 2013; Atkins, 2013.

Figure 4.12-1
Location Map

Table 4.12-2 Needles General Plan Policies	
Policy No.	Policies
LAND USE ELEMENT	
Urban Area	
LU-1	The City shall encourage infill development in the core area and extend additional development into open space areas designated for future growth.
LU-7	Provide and maintain the neighborhood-unit principles where feasible in the community.
LU-8	Encourage diversified economic development in the community.
LU-10	Insure that land uses are protected against potential erosion.
LU-12	Protect significant cultural and environmental resources in the City from exploitation.
LU-13	Provide a balance of developmental growth while maintaining a rural atmosphere.
Residential	
LU-16	Insure neighborhood compatibility of infill residential developments.
LU-17	Provide a range of residential densities in the City.
LU-19	Insure that infilling new and rehabilitated residential structures are compatible with the overall established character of the neighborhood.
Community Facilities	
LU-26	Establish a public activity trail system throughout the community, containing bicycling, hiking, jogging, horseback riding, natural walks or a combination of these to provide a link between open-space areas, community facilities, the Colorado River and the residential neighborhoods of the community.
Commercial	
LU-27	Promote quality design, visual attractiveness, proper location, adequate sites, sufficient off-street parking and a convenient circulation system for all recognized commercial areas in the City.
HOUSING ELEMENT	
H-1.2	Improve and conserve existing residential neighborhoods.
H-1.3	Assist in education for the reduction of residential energy use within the City to help decrease housing costs and conserve the resource.
H-2.2	Promote a mixture of housing and commercial land-uses in downtown Needles to provide housing with access to commercial services for special needs households particularly elderly households and small business owners. Rezone the downtown area to allow for mixed uses and taller buildings. Specifically require that the new construction in the downtown area supply shops for commercial uses and/or office spaces on the ground floor with residential uses on the upper floors.
H-2.3	Encourage development of those areas to coincide with public services. Specifically require by ordinance that development be built only in areas with adequate public services.
H-3.3	Protect architecturally significant residences and neighborhoods.
H-5.1	All new City buildings shall be constructed to meet or exceed the energy conservation standards in force at the time of their construction.
H-5.2	The City shall strive to make all City-owned buildings as energy efficient as possible.
H-5.3	The City will actively pursue all viable new sources of energy.
H-5.4	The City will form a program to assist homeowners to identify areas in their home or practices that waste energy, and will attempt to offer incentives for rectifying such problems.
H-5.5	The City will take every opportunity reasonably possible to educate the public about energy use within the City.

Table 4.12-2 Needles General Plan Policies

Policy No.	Policies
H-5.6	The City will create an alternative energy ordinance and encourage other viable forms of alternative energy, and will seek grants to be able to offer incentives.
CIRCULATION, TRANSPORTATION, AND SCENIC HIGHWAYS ELEMENT	
Circulation and Transportation	
CT-2	Improve the appearance of existing transportation rights-of-way and incorporate high standards of design when considering new transportation corridors, including streets, activity trails, walkways, and other related rights-of-way.
CT-3	Sidewalks, activity trails and walking facilities should be extended throughout the City to allow for more convenient and safer pedestrian movement.
CT-4	Provide a bus system to better serve the population of Needles and the surrounding communities.
CT-5	Improve and upgrade existing street system to provide safe vehicular movements throughout the City and accommodate future developments.
Scenic Highways	
CT-1	Maintain the scenic route right-of-ways in an attractive manner.
OPEN SPACE AND RECREATION ELEMENT	
(There are no Open Space and Recreation Element policies that are directly applicable to implementing the Regional Reduction Plan in Needles)	
CONSERVATION AND HISTORIC PRESERVATION ELEMENT	
CH-1	Vigorously pursue the conservation and preservation of historical and natural resources.
CH-2	Continue to monitor conditions of historic and architecturally significant structures.
CH-4	Manage existing land uses and future development to insure minimization of pollution of the City's water supply or the Colorado River.
CH-5	Promote the use of water conservation in the community.
CH-6	Explore the feasibility of using treated waste water for landscaping of park, golf course and greenbelt areas.
CH-7	Insure the adequate supply and high quality of water in the community for future development.
NOISE ELEMENT	
N-1	Protect residential and other sensitive land uses from major incompatible noise sources such as major transportation routes and facilities, as well as industrial and commercial areas.
N-2	Insure that new development occurring within noise impact areas is compatible with existing noise levels.
SAFETY ELEMENT	
S-1	Pursue the protection of the existing population and future development from the hazards of flooding, seismic, and fire.
S-4	Insure the protection of people or wildlife from hazardous materials in the community.
SOURCE: City of Needles, Needles General Plan Policy Document (February 18, 1986); City of Needles, Housing Element (Updated) of the City of Needles General Plan (April 12, 2005).	

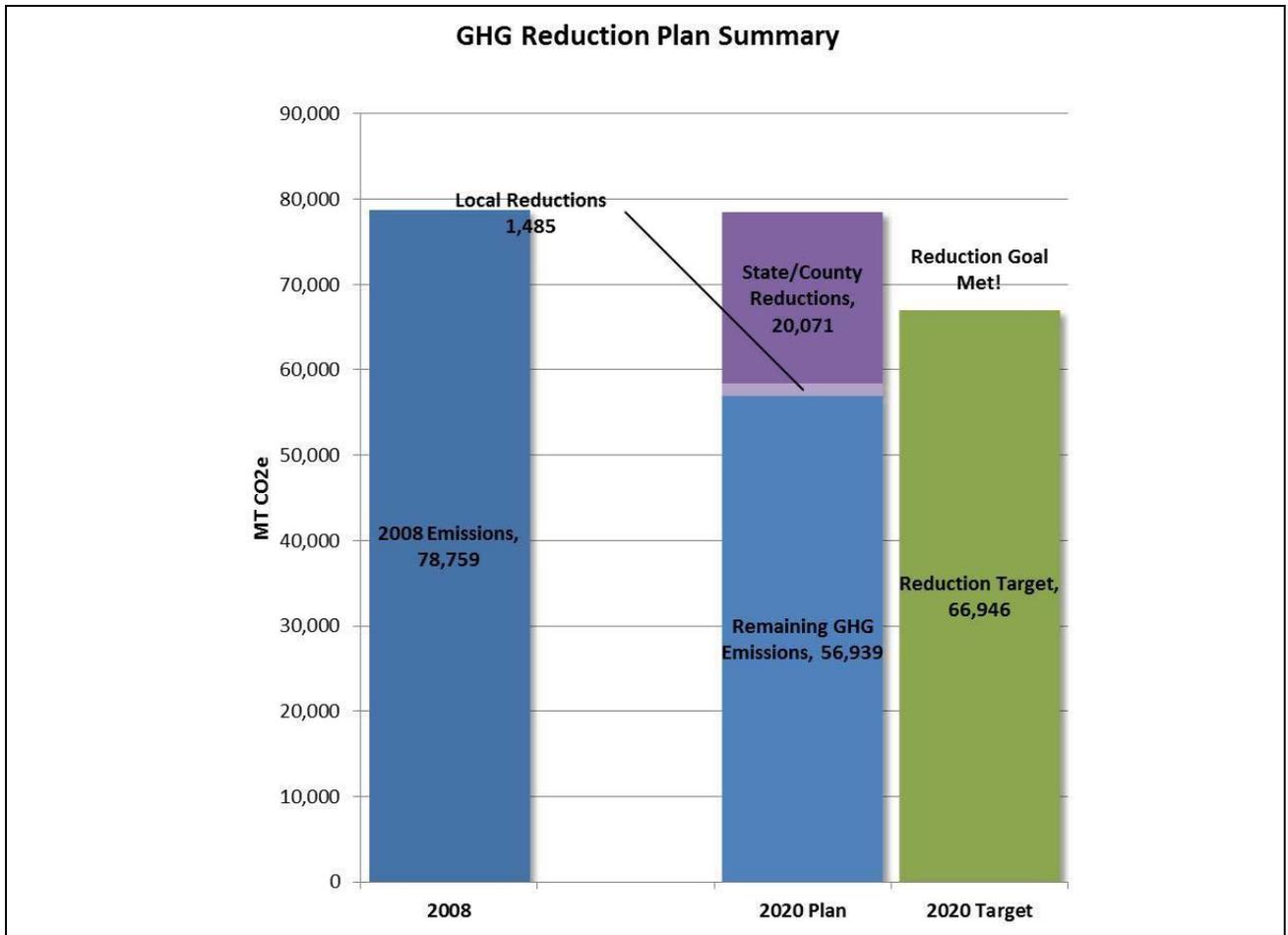


Figure 4.12-2 Emissions Reduction Profile for Needles

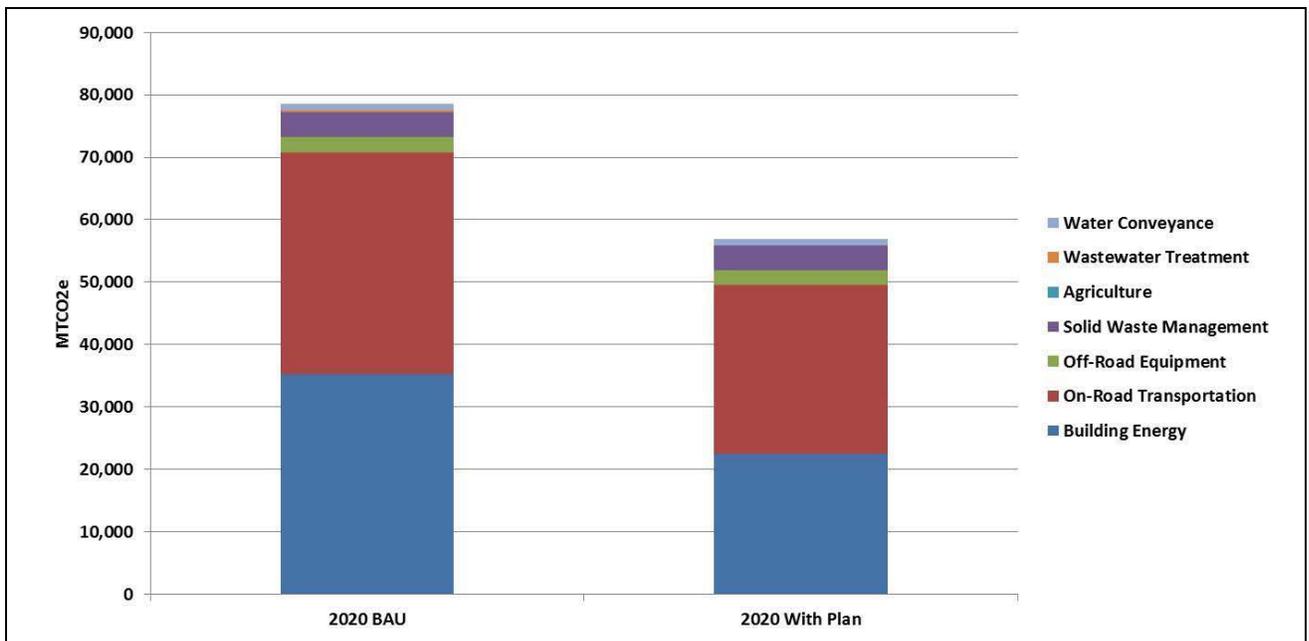


Figure 4.12-3 Emissions by Sector for Needles

Table 4.12-3 (Emission Reduction by Sector for Needles) summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction (“Plan”) results by sector. It shows the percent reduction in each sector’s emissions in 2020 and demonstrates that Needles exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, wastewater treatment, and on-road transportation sectors.

Table 4.12-3 Emission Reduction by Sector for Needles					
Sector	2008	2020 BAU	Reductions	2020 Emissions with Plan	% Reduction
Building Energy	35,864	35,232	12,685	22,547	36.0%
On-Road Transportation	35,135	35,468	8,402	27,066	23.7%
Off-Road Equipment	2,549	2,587	300	2,287	11.6%
Solid Waste Management	3,915	3,989	49	3,940	1.2%
Agriculture	0	0	0	0	0.0%
Wastewater Treatment	196	201	101	101	50.0%
Water Conveyance	999	1,019	14	1,005	1.4%
GHG Performance Standard*	—	—	7	—	—
Total Emissions	78,759	78,496	21,556	56,939	27.5%
Reduction Goal	—	—	11,550	66,946	14.7%
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	—	—	10,006	—	—
Per-Capita Emissions	16.3	15.9	—	11.5	—
Per-Job Emissions	23.7	25.0	—	18.1	—
Excluded Stationary Source Emissions	7,319	7,807	—	—	—

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

Values may not sum due to rounding.

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

Figure 4.12-4 (Emission Reductions by Control and by Sector for Needles) 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 Energy Efficiency for Existing Buildings (Energy-1).

Table 4.12-4 (GHG Reduction Measures and Estimated 2020 Reductions for Needles) presents each reduction measure evaluated for Needles. For each measure, the short title and estimated GHG reductions in 2020 are listed. Measures are organized by state/county control and local control and listed by sector. The physical impacts of implementing the Local Measures are reviewed in this chapter of the EIR to determine the significance of the Regional Reduction Plan as it relates to the City of Needles.

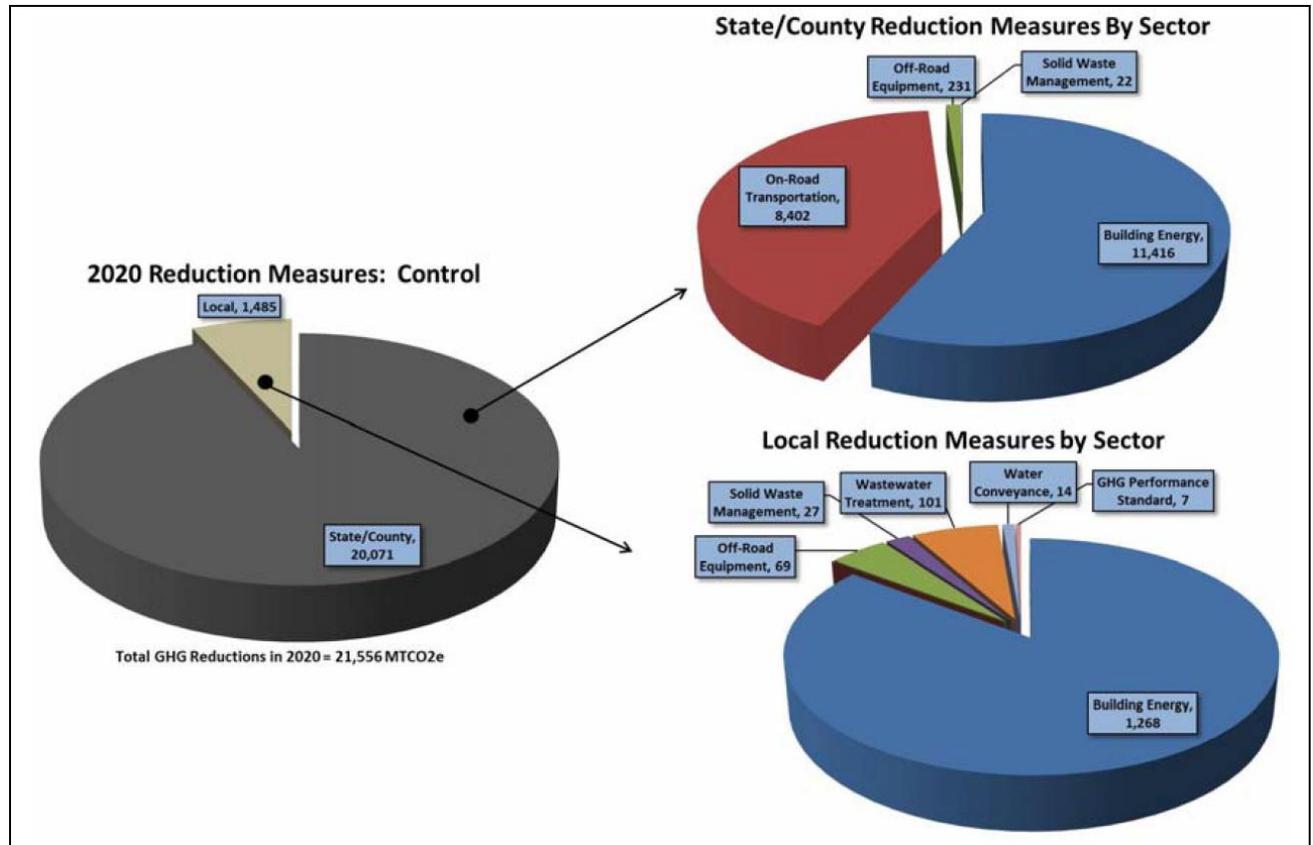


Figure 4.12-4 Emissions Reduction by Control and Sector for Needles

Table 4.12-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions for Needles		
Reduction Measure Number	Description	Emissions Reductions
STATE AND COUNTY MEASURES		
State-1	Renewable Portfolio Standard	9,178
State-2	Title 24	112
State-3	AB 1190	2,074
State-4	Solar Water Heating	18
State-5	Industrial Boiler Efficiency	34
State-6	Pavley and Low Carbon Fuel Standard	7,618
State-7	AB 32 Transportation Reduction Strategies	783
State-8	Low Carbon Fuel Standard-Off-road	231
State-9	AB 32 Methane Capture	21
County-1	County GHG Reduction Plan Landfill Controls	1

Table 4.12-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions for Needles

<i>Reduction Measure Number</i>	<i>Description</i>	<i>Emissions Reductions</i>
LOCAL MEASURES		
Building Energy		
Energy-1	Energy Efficiency for Existing Buildings	671
Energy-2	Outdoor Lighting	119
Energy-3	Green Building Ordinance	16
Energy-4*	Solar Installation for New Housing	4
Energy-5*	Solar Installation for New Commercial	3
Energy-7	Solar Installation for Existing Housing	345
Energy-8	Solar Installation for Existing Commercial/Industrial	32
Energy-9*	Co-Generation Facilities	0.1
<i>LandUse-2 (BE)*</i>	<i>Promote Rooftop Gardens</i>	<i>0.1</i>
<i>Wastewater-2 (BE)</i>	<i>Equipment Upgrades</i>	<i>79</i>
Off-Road Equipment		
OffRoad-1	Construction Equipment	43
OffRoad-2	Idling Ordinance	26
Solid Waste Management		
Waste-2	Waste Diversion	27
Wastewater Treatment		
Wastewater-1 (WT)	Methane Recovery	101
Water Conveyance		
<i>Wastewater-3 (WC)*</i>	<i>Recycled Water</i>	<i>14</i>
GHG Performance Standard for New Development		
PS-1	GHG Performance Standard for New Development	7
Total Reductions		21,556

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

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

Values may not sum due to rounding.

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

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

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

■ Summary of Environmental Impacts and Mitigation Measures

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

Table 4.12-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles) 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)

MM4.12.1-1 *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 City of Needles, 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 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

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

Table 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

Environmental Impacts	Regional Reduction Plan Local Reduction Measure															
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-2	Wastewater-1	Wastewater-2	Wastewater-3	Off-Road-1	Off-Road-2	Waste-2	PS-1
Biological Resources																
Special-status species	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Riparian habitat or other sensitive natural community	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Protected wetlands	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Wildlife movement	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with any local policies or ordinances protecting biological resources	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with habitat conservation plan	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cultural Resources																
Substantial adverse change in significance of a historical resource	LS/MM	NI	NI	NI	LS/MM	LS/MM	LS/MM	NI	NI	NI	NI	NI	NI	NI	NI	NI
Substantial adverse change in significance of a archaeological resource	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Disturb any human remains	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS/MM	NI	NI	NI	LS/MM	LS/MM	LS/MM	NI	NI	NI	NI	NI	NI	NI	NI	NI
Geology/Soils																
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	NI	NI	LS/PR	LS/PR	LS/PR	LS/PR	NI	NI	NI	LS	NI	NI	NI	NI	NI
Substantial soil erosion or loss of topsoil	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located on a geologic unit or soil that is unstable, resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located on expansive soil	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

Environmental Impacts	Regional Reduction Plan Local Reduction Measure															
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-2	Wastewater-1	Wastewater-2	Wastewater-3	Off-Road-1	Off-Road-2	Waste-2	PS-1
Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	LS	NI	NI	NI	NI	NI
Greenhouse Gas Emissions/Global Climate Change																
Generate greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Conflict with an applicable plan, policy, or regulation to reduce greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Hazards/Hazardous Materials																
Create significant hazard through the routine transport, use, or disposal of hazardous materials	LS/PR	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI
Create significant hazard through release of hazardous materials	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Emit hazardous emissions or handle acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving wildland fires	NI	NI	NI	NI	LS/PR	LS/PR	LS	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI
Hydrology/Water Quality																
Violate any water quality standards or waste discharge requirements	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI

Table 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

Environmental Impacts	Regional Reduction Plan Local Reduction Measure															
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-2	Wastewater-1	Wastewater-2	Wastewater-3	Off-Road-1	Off-Road-2	Waste-2	PS-1
Alter the existing drainage pattern of the site or area, resulting in substantial erosion or siltation	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Alter the existing drainage pattern of the site or area, resulting in on- or off-site flooding	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Otherwise degrade water quality	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Place housing within a 100-year flood hazard area	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Place within a 100-year flood hazard area structures that would impede or redirect flood flows	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Inundation by seiche, tsunami, or mudflow	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	LS	NI	NI	NI	NI
Land Use/Planning																
Physically divide an established community	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with any applicable land use plan, policy, or regulation	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Conflict with any applicable habitat conservation plan or natural community conservation plan	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	LS	LS	LS	LS	NI	LS	LS	LS	LS	LS	LS	LS	LS	LS
Mineral Resources																
Loss of availability of a known mineral resource	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Loss of availability of a locally important mineral resource recovery site	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

Environmental Impacts	Regional Reduction Plan Local Reduction Measure															
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-2	Wastewater-1	Wastewater-2	Wastewater-3	Off-Road-1	Off-Road-2	Waste-2	PS-1
Noise																
Noise levels in excess of standards established in the local general plan or noise ordinance	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive groundborne vibration or groundborne noise levels	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Permanent increase in ambient noise levels	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Temporary or periodic increase in ambient noise levels	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive noise levels within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Excessive noise levels within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI
Population/Housing																
Induce substantial population growth	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of existing housing	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of people	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	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	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Recreation																
Physical deterioration of recreational facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Construction or expansion of recreational facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Table 4.12-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Needles

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

Environmental Impacts	Regional Reduction Plan Local Reduction Measure															
	Energy-1	Energy-2	Energy-3	Energy-4	Energy-5	Energy-7	Energy-8	Energy-9	Land Use-2	Wastewater-1	Wastewater-2	Wastewater-3	Off-Road-1	Off-Road-2	Waste-2	PS-1
Transportation/Traffic																
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with an applicable congestion management program	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Change in air traffic patterns that results in substantial safety risks	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Increase hazards due to a design feature or incompatible uses	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Inadequate emergency access	NI	NI	NI	NI	LS/PR	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Utilities/Service Systems																
Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI
Construction or expansion of new or existing water or wastewater treatment facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI
Construction or expansion of new or existing stormwater drainage facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Insufficient water supplies from existing entitlements and resources, or need new or expanded entitlements	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Inadequate wastewater treatment capacity	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI
Insufficient permitted solid waste disposal capacity	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Noncompliance with federal, state, or local statutes and regulations related to solid waste	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	LS	LS	NI	NI	NI	NI

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4.12.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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 City of Needles is located in eastern San Bernardino County in the Mohave Valley area of the eastern Mohave Desert. The Mohave Valley is ringed by the Sacramento and Dead Mountains on the West and the Black Mountains on the East. These mountain ranges reach elevations exceeding 3,000 feet. The Mohave Valley is bisected by the Colorado River which flows past the City of Needles. The topography of the City of Needles consists of gently sloping terrain ranging in elevation from approximately 470 feet at the waterfront to approximately 700 feet at the City's upper elevations.

The history of the Needles region began with the Spanish explorations of Alarcon in 1540. The City was founded in 1883 when it was founded with the coming of the railroad. The town derived its name from the mountains located in the area which appear to be needles pointed toward the sky. The visual character of the City reflects this rich history.

Scenic Resources

The topographic setting of the City of Needles provides excellent views of the surrounding environs that are generally uninterrupted by tall structures or obstructions. The physical setting of Needles, tucked in the Mohave Valley and alongside the Colorado River, provides scenic views and has become a treasured resource for residents. The East Mojave National Scenic Area is just west of the City.

In addition, the City of Needles includes the following scenic routes and vistas that are located within the City and in the surrounding areas: Interstate 40 (I-40), U.S. Highway 95 (US-95), Dike Road, Lilly Hill Drive, J Street, Balboa, and Callendeora. I-40 has also been designated as a Priority 1 Scenic Route by the county of San Bernardino.

■ Regulatory Framework

Federal

There are no federal regulations pertaining to visual quality.

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. The City of Needles does not have any officially designated scenic highways. I-40 is designated as an eligible state scenic highway.

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 General Plan Open Space Element

The County of San Bernardino General Plan Open Space Element Policy OS 5.2 does not designate I-10 any roads in the City as Needles as scenic highways.

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

Needles General Plan

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

Circulation and Transportation Element, Scenic Highways

- Policy 1** Maintain the scenic route right-of-ways in an attractive manner.
- Policy 2** Protect and enhance the scenic resources of the area, utilizing appropriate guidelines and programs, as well as other necessary means, which will benefit the program.

■ Project Impact Evaluation

Thresholds of Significance

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

Impacts regarding visual character typically include changes to the style or ambiance of a community, the insertion of a prominent feature that changes the original visual character of an area, or the elimination of a significant natural feature (or open space). Regional Reduction Plan reduction measures were reviewed to determine if they would include elements that, if implemented, would result changes in the viewshed that could be subjectively perceived as adverse or negative, or if implementation of the measures would be inconsistent with applicable General Plan goals or City standards pertaining to development and visual quality.

Effects Not Found to Be Significant

Threshold	Would the project have a substantial adverse effect on a scenic vista?
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The physical setting of Needles, tucked in the Mohave Valley and alongside the Colorado River, provides scenic views of the surrounding area. There are numerous roadway corridors, including I-40, US-95, Dike Road, Lilly Hill Drive, J Street, Balboa, and Callendeora, that afford near to distant views.

¹ These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

The Regional Reduction Plan does not propose specific development. Rather, it encourages increased sustainability in existing and future development, furthering the goals of the General Plan. Regional Reduction Plan measures selected by the City of Needles would not result in projects that would be of a height, mass, or scale that would adversely affect scenic views. Measures that could be implemented under reduction measure PS-1 would be subject to design review and permitting in conjunction with new development project approvals.

Regional Reduction Plan measures that could involve solar energy systems for new residential and existing commercial development could alter the integrity of a scenic vista if not properly sited and designed. Circulation element policies provide protection to scenic resources. Implementation of these policies would reduce impacts to *less than significant*. No mitigation is required.

Threshold	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
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No state scenic highways have been designated within the City of Needles. The City has designated scenic routes and vistas within the City and in the surrounding area. Implementation of the Regional Reduction Plan does not propose specific development that would damage scenic resources. Implementation could result in the installation of photovoltaic arrays on existing buildings. Project design would be required to be consistent with General Plan policies pertaining to visual resources and any applicable Municipal Code requirements. The impact 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?
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The urbanized portions of the City are largely developed with residential and commercial uses. However, the natural vegetation and landforms that comprise much of the surrounding area is an essential component of the visual landscape in the City.

The Regional Reduction Plan does not propose specific development. Rather, it encourages increased sustainability in existing and future development, furthering the goals of the General Plan. Regional Reduction Plan measures selected by the City of Needles would not result in projects that would be of a height, mass, or scale that would contribute to visual quality degradation. Measures that could be implemented under reduction measure PS-1 would be subject to design review and permitting in conjunction with new development project approvals.

The Regional Reduction Plan includes measures that encourage energy-saving retrofits on existing buildings and incorporation of energy-generating components in new construction, such as solar arrays that could be on buildings, adjacent to them (on-site), or, possibly, off-site for new commercial uses. These features could be visible to visitors, employees, and residents. These projects would be reviewed by the City to ensure that the visual quality of each affected site and surrounding environment is not adversely affected by the installation of energy-saving measures.

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

Threshold	Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?
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The City does not have large industrial developments, extensive street lighting, or large glass/mirrored building façades. Night lighting levels are relatively low, allowing excellent views of the surrounding area.

The Regional Reduction Plan does not propose specific development. Rather, it encourages increased sustainability in existing and future development, furthering the goals of the General Plan. Regional Reduction Plan measures selected by the City of Needles would not result in projects that would be a source of light or glare. Implementation of the Regional Reduction Plan could result in energy-efficient or energy-generating rooftop structures such as photovoltaic arrays on or near 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. Measure Energy-2 encourages lighting along the urban-rural edge not to exceed one-half the current maximum lighting standard. It also would prohibit continuous all night outdoor lighting in parks, sport facilities, and construction sites (unless safety is compromised). In addition, it encourages implementation of CALGreen outdoor lighting standards to achieve energy efficiency. This could be considered a benefit of the proposed project because it could help reduce sources of nighttime lighting that contribute to sky glow.

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

■ Cumulative Impacts

Impacts from light and glare are generally localized and site-specific; therefore, the context for an analysis of cumulative impacts from light and glare would be geographically limited to the City. Future development in this geographic context would further increase sources of light and glare, which could be potentially significant if future projects introduce light and glare into areas of the City that have lower levels of ambient lighting. The proposed project would not result in new sources of substantial light, since future energy-generating structures would generally not be lighted. The effects of light and glare would also be addressed by policies requiring attention to lighting design.

The Regional Reduction Plan does not propose specific development. Implementation of energy-saving retrofits and new solar installations would not result in significant aesthetics impacts, as explained above, because all projects would be required to be consistent with adopted policies and standards to reduce impacts. Therefore, the proposed project would not result in a cumulatively considerable contribution to aesthetics effects. *Cumulative aesthetics impacts would be less than significant.*

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

San Bernardino, County of. 2007. *County of San Bernardino 2007 General Plan*, March 13.

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

4.12.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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

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.

The City of Needles is located in the Mojave Valley area of the Mohave Desert. According to the California Resource Agency’s Department of Conservation 2010 Important Farmland Maps, no portion of the City is designated Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance.

■ Regulatory Framework

Federal

There are no federal regulations pertaining to agricultural resources.

State

Williamson Act

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

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

Regional

County of San Bernardino Development Code

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

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

Local

Needles General Plan

There are no General Plan policies pertaining to agriculture/forestry resources that are directly applicable to implementation of the Regional Reduction Plan local reduction measures selected by Needles.

■ 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 Needles.

Effects Not Found to Be Significant

Threshold	Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?
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No portion of the City 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?
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Implementation of the Regional Reduction Plan in Needles would not result in any impacts to existing zoning for agricultural or with Williamson Act contracts. There would be *no impact*.

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
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Needles is located in the Mojave Desert and does not contain areas classified as timberland, zoned as timberland, or considered forested with timber. There would be *no impact*.

Threshold	Would the project result in the loss of forest land or conversion of forest land to nonforest use?
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Needles is located in the Mojave Desert and does not contain forest land. There would be *no impact*.

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

■ Cumulative Impacts

Implementation of the Regional Reduction Plan in Needles 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 Land Resource Protection, Farmland Mapping and Monitoring Program. 2010. *San Bernardino County Important Farmland*.

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

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

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4.12.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Mohave Desert Air Quality Management District (MDAQMD) Attainment Plans and Air Quality Monitoring Data, the California Air Resources Board (California ARB) Monitoring Data, and the Needles General Plan (1986). Full reference-list entries for all cited materials are provided at the end of this section.

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

■ Environmental Setting

The portion of the proposed project under jurisdiction of the City of Needles 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 from 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).

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

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. VOC and NO_x are criteria pollutant precursors and go on to form secondary criteria

pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants.

Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects. Other pollutants, such as carbon dioxide, 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 4.18.7 [Global Climate Change]).

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

Volatile organic compounds (VOC) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. VOCs are synonymous with reactive organic gases. Other sources of VOC include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOC, but rather by reactions of VOC to form secondary pollutants such as O₃ (SCAQMD 2005).

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

NO₂ is a by-product of fuel combustion. The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 part per million (ppm). NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ also contributes to the formation of PM₁₀, PM_{2.5}, and O₃ (SCAQMD 2005).

Sulfur dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO₂. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. A primary source of SO₂ emissions is high-sulfur-content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO₂ (SCAQMD 2005).

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized. Inhalable course particles, or PM₁₀, 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 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 United States Code Section 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 California ARB to designate substances as TACs. Once a TAC is identified, California ARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. California ARB has, to date, established formal control measures for 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, 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 Barstow station. The pollutants measured at the Barstow station include O₃, CO, NO₂, and PM₁₀. The next air quality station closest to Needles is available at the Victorville station, which measures SO₂ and PM_{2.5}. Note that while these are the closest monitoring sites to the City of Needles, the Barstow monitoring station is approximately 143 miles from the City, and the Victorville monitoring station is approximately 173 miles from the City. Due to the distance, actual air pollution levels in Needles may be different from those shown in Table 4.12.3-1 (Ambient Air Quality Monitoring). Due to the rural area between Barstow and Needles, there are no significant sources of air pollution other than Interstate 40 (I-40); therefore, it is expected that air pollutant levels would be the same or lower than those shown in Table 4.12.3-1. However, this cannot be ascertained in this analysis, and the information presented is the best available data on air pollution in Needles that can be obtained at this time.

The air quality data monitored, including federal and state air quality standards for 2007 through 2011 are presented in Table 4.12.3-1. The data show recurring violations of both the state and federal O₃ standards. The data also indicate that the area regularly exceeds the federal and PM₁₀ standards. The PM_{2.5}, CO, SO₂, and NO₂ standards have not been violated in the last 5 years at the stations.

Regulatory Framework

Federal

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

The federal 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

Table 4.12.3-1 Ambient Air Quality Monitoring					
<i>Pollutant/Standard</i>	<i>Number of Days Air Quality Standards Were Exceeded per Year and Maximum Level of Concentrations in Each Year</i>				
	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Ozone (O₃)^a					
State 1-Hour ≥ 0.09 ppm	2	5	1	1	0
State 8-Hour ≥ 0.07 ppm	46	23	18	7	35
Federal 8-Hour ≥ 0.075 ppm	25	7	5	1	9
Maximum 1-Hour Average Concentration (ppm)	0.099	0.104	0.095	0.097	0.093
Maximum 8-Hour Average Concentration (ppm)	0.088	0.097	0.087	0.078	0.084
Carbon Monoxide (CO)^a					
State/Federal 8-Hour > 9.0 ppm	0	0	0	0	0
Max. 8-Hour Average Concentration (ppm)	0.70	1.23	0.89	0.89	1.35
Nitrogen Dioxide (NO₂)^a					
State 1-Hour ≥ 0.18 ppm ^c	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.073	0.081	0.060	0.062	0.077
Sulfur Dioxide^b					
State 24-Hour ≥ 0.04 ppm	0	0	0	0	0
Federal-24 Hour ≥ 0.14 ppm	0	0	0	0	0
Maximum 24-Hour Average Concentration (ppm)	0.005	0.002	0.005	0.007	0.007
Suspended Particulates (PM₁₀)^a					
State 24-Hour > 50 µg/m ³	5	2	0	0	0
Federal-24 Hour > 150 µg/m ³	1	0	2	0	2
Maximum 24-Hour Average Concentration (µg/m ³)	202.0	93.0	76.0	38.0	98.0
Fine Particulates (PM_{2.5})^b					
Federal-24 Hour ≥ 35 µg/m ³	0	0	0	0	0
Maximum 24-Hour Average Concentration (µg/m ³)	28.0	17.0	20.0	18.0	15.0

SOURCE: California ARB, Ambient Air Quality Monitoring Data (obtained February 2013).

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

a. Data obtained from the Barstow station.

b. Data obtained from the Victorville station.

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

more stringent standards or to include other specific pollutants. These NAAQS standards are the levels of air quality considered safe, along with an adequate margin of safety to protect the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments dictate that states containing areas violating the NAAQS must revise their SIPs to include extra control measures to reduce air pollution. California's SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans and rules and regulations of the various agencies with jurisdiction over the state's air basins. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State

California Air Resources Board

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

Table 4.12.3-2 (State and Federal Ambient Air Quality Standards) shows the NAAQS and California Ambient Air Quality Standards for each of the criteria pollutants.

Regional

Southern California Association of Governments (SCAG)

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

Table 4.12.3-2 State and Federal Ambient Air Quality Standards				
<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>Federal Primary Standard</i>	<i>Major Sources</i>
Ozone (O ₃) ^a	1 hour	0.09 ppm	—	Internal combustion engines, coatings, and solvents
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines
	8 hours	9 ppm	9 ppm	
Nitrogen Dioxide (NO ₂) ^b	Annual Average	0.030 ppm	0.053 ppm	Internal combustion engines and industrial processes
	1 hour	0.18 ppm	—	
Sulfur Dioxide	Annual Average	—	0.03 ppm	Internal combustion engines, chemical plants, sulfur recovery, and metal processing
	1 hour	0.25 ppm	—	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulates (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	—	Dust from agricultural and construction, combustion, natural activities
	24 hours	50 µg/m ³	150 µg/m ³	
Fine Particulates (PM _{2.5}) ^c	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	Primarily from Internal combustion engines
	24 hours	—	35 µg/m ³	
Lead (Pb)	Monthly	1.5 µg/m ³	—	Lead smelters and lead battery manufacturing & recycling.
	Quarterly	—	1.5 µg/m ³	
Sulfates (SO ₄)	24 hours	25 µg/m ³	—	Industrial processes

SOURCE: California ARB (2012).

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

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

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

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

Regional Comprehensive Plan

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

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

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

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

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, “people-scaled” communities
- Providing new housing opportunities, with building types and locations that respond to the region’s changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM₁₀, PM_{2.5}, ultrafine), and CO

SCAG Compass Growth Visioning

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

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

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

Mojave Desert Air Quality Management District

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

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

Under the provisions of the federal and California 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 4.12.3-3 (Attainment Status of MDAB) shows the attainment status for criteria air pollutants in the MDAB. As shown in Table 4.12.3-3, the MDAQMD is a designated nonattainment basin for O₃, PM₁₀, and PM_{2.5}. In 1991, the San Bernardino County Air Pollution Control District (APCD) prepared the Air Quality Attainment Plan (AQAP) for O₃. This plan established programs and control strategies to achieve the O₃ standards and to maintain attainment of the other criteria pollutants. Measures in the 1991 AQAP include an updated permitting program for stationary pollution sources, reasonable control technology for all existing and future sources, provisions to develop area and indirect control programs such as land use and transportation measures and public education programs. In 1993, the APCD was separated from the County under 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 PM₁₀ based on violations of standards between 1989 and 1991. The MDAQMD prepared the Mojave Desert Planning Area (MDPA) Federal PM₁₀ Attainment Plan in 1995 to provide dust control programs to meet federal PM₁₀ standards by the year 2000. The MDPA covers only the southwestern portions of the Mojave Desert (Victor Valley area) because most of the controllable sources and receptors of PM₁₀ and recording instrumentation are located in the Victor Valley. The plan outlines a program for implementation and enforcement of dust control measures. These measures are generally reflected through MDAQMD Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust Control). The federal standard for PM₁₀ has been met within the area for the past 8 years and a change of status to attainment is currently being evaluated.

Table 4.12.3-3 Attainment Status of MDAB

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

SOURCE: California ARB (2012).

The MDAQMD has adopted attainment plans for a variety of nonattainment pollutants. Table 4.12.3-4 (MDAQMD Attainment Plans) lists the attainment plans applicable to the project area.

Table 4.12.3-4 MDAQMD Attainment Plans

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

SOURCE: California ARB (2012).

a. A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been redesignated to attainment; refer to Table 4.12.3-3 (Attainment Status of MDAB).

Local

Needles General Plan

The Needles General Plan does not have policies related to air quality. However, Needles General Plan policies, objectives, principles, and standards that can be used to indirectly reduce or control air pollution² are as follows:

Conservation and Historic Preservation Element

- Principle 4** Ensure compliance of all State required energy conservation laws in future developments. [Reducing energy consumption reduces regional air pollution.]

Land Use Element

- Principle 22** Convalescent hospitals, nursing homes and related services for the elderly should be located in multi-family areas of the City. Locations near major medical facilities and public transportation are essential. [This policy reduces transportation-related emissions and places convalescent hospitals away from industrial sources of pollution.]

- Principle 24** A community conference center should be located within or at the edge of the central business district in close proximity to hotel and motel facilities; the location should also be convenient to numerous eating establishments and major retail services. The site should contain sufficient parking for expansion and should be served by public transportation. [This policy reduces transportation-related emissions.]

- Principle 25** Museums and regional cultural facilities should be located within or adjacent to the central business district or park and open space areas. The site should contain parking and be accessible by public transportation. [This policy reduces transportation-related emissions.]

- Principle 30** Major commercial developments should be located so as to have direct street access and be served by public transportation. [This policy reduces transportation-related emissions.]

Housing Element

- Objective 5.1** All new City buildings shall be constructed to meet or exceed the energy conservation standards in force at the time of their construction. [Reducing energy consumption reduces regional air pollution.]

- Objective 5.6** The City will create an alternative energy ordinance and encourage other viable forms of alternative energy, and will seek grants to be able to offer incentives. [Alternative energy reduces regional air pollution.]

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

■ 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 4.12.3-5 (MDAQMD Thresholds of Significance).

Table 4.12.3-5 MDAQMD Thresholds of Significance	
<i>Pollutant</i>	<i>Daily Threshold (lb/day)</i>
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 one million
- Emission of (or exposure to) toxic air contaminants that increase the maximum hazard quotient by 1

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?
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Table 4.12.3-4 lists the applicable air quality management plans for the region that are designed to meet the state and federal Clean Air Act planning requirements with a focus on state and federal O₃ and federal PM₁₀ standards. The plans incorporate control strategies, including transportation conformity budgets that show vehicle miles travelled (VMT) emissions offsets following the recent changes in USEPA requirements.

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

The City will implement measures to improve air quality from off-road diesel equipment. These include emissions reduction strategies such as Regional Reduction Plan reductions Off-Road-1 (Construction Equipment) and Off-Road-2 (Idling Ordinance) within the City of Needles. These measures would reduce the use of gasoline-powered construction, and reduce the time the construction equipment is allowed to idle beyond existing California ARB idling regulations. Implementation of these strategies would reduce O₃ and particulate matter emissions from operation of diesel engines.

In addition, energy efficiency measures to reduce electricity use and renewable energy generation will reduce both GHG emissions and air pollutants at power plants generating electricity in the region. Energy efficiency measures in the Regional Reduction Plan will also reduce natural gas combustion at residential, commercial and industrial land uses within the City, which will reduce criteria air pollution locally, including O₃ precursors. The implementation of the Regional Reduction Plan will further the goals of the air quality management plan for the MDAB. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
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Construction activities, such as building energy retrofits and grading or excavation activities, if required for installation of energy-generating structures, would result in temporary, short-term emissions of air pollutants. The primary source of NO_x, CO, and SO_x emissions is the operation of construction equipment. The primary sources of particulate matter (PM₁₀ and PM_{2.5}) emissions include activities that disturb the soil, such as grading and excavation, road construction, and building demolition and

construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. Because information regarding specific facilities and building details required to implement the Regional Reduction Plan reduction measures is not available, short-term construction emissions from these activities cannot be quantified. However, these temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits, and renewable energy project that are part of the reduction measures in the Regional Reduction Plan that would result in an overall reduction in both GHG and criteria air pollutant emissions. Additionally, as described in the previous sections, the Regional Reduction Plan reduction strategies Off-Road-1 (Construction Equipment) and Off-Road-2 (Idling Ordinance) would reduce criteria pollutant emissions during construction, including O₃ and diesel particulate matter emissions.

While short-term construction emissions are not quantifiable at this time, long-term emissions of criteria pollutants from operation of the energy efficiency measures, renewable energy generation, methane capture systems, water conservation measures, solid waste diversion programs, and the various transportation measures are better understood at a regional level. This is because of the level of commitment that the City of Needles has chosen in implementing the reduction measures in the Regional Reduction Plan, which would reduce criteria pollutants as well as GHG emissions. Table 4.12.3-6 (Emission Reduction by Sector for Needles) compares the criteria pollutant emissions predicted for 2008 with the predicted reductions in those emissions through implementation of the Regional Reduction Plan.

Table 4.12.3-6 Emission Reduction by Sector for Needles

<i>Sector</i>	<i>2008</i>	<i>2020 BAU</i>	<i>Reductions</i>	<i>2020 Emissions with Plan</i>	<i>% Reduction</i>
Building Energy	35,964	35,232	12,685	22,547	36.0%
On-Road Transportation	35,135	35,468	8,402	27,066	23.7%
Off-Road Equipment	2,549	2,587	300	2,287	11.6%
Solid Waste Management	3,915	3,989	49	3,940	1.2%
Agriculture	0	0	0	0	0.0%
Wastewater Treatment	196	201	101	101	50.0%
Water Conveyance	999	1,019	14	1,005	1.4%
GHG Performance Standard ^a	—	—	7	—	—
Total Emissions	78,759	78,496	21,556	56,939	27.5%
Reduction Goal	—	—	11,550	66,946	14.7%
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	—	—	10,006	—	—
Excluded Stationary Source Emissions	7,391	7,807	—	—	—

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.

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

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

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?
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As shown in Table 4.12.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Needles. Additionally, the Regional Reduction Plan reduction strategies Off-Road-1: Construction Equipment and Off-Road-2: Idling Ordinance would reduce criteria pollutant emissions during construction, including diesel particulate matter emissions. The emissions reduction strategies selected by the City 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 City to substantial pollutant concentrations. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project create objectionable odors affecting a substantial number of people?
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Implementation of the Regional Reduction Plan will not create objectionable odors. None of reduction measures in the Regional Reduction Plan selected by the City of Needles include components that typically generate odors. Therefore, the impact would be *less than significant*. No mitigation is required.

■ Cumulative Impacts

Threshold	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?
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As shown in Table 4.12.3-6, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Needles. Regionally, additional air pollutant reductions will take place at power plants due to reductions in electrical demand and increases in renewable energy generation. Therefore, the Regional Reduction Plan will result in a cumulative net reduction in criteria air pollutants. However, this environmental benefit does not reduce air pollutants enough to cause buildout of the General Plan to be less than cumulatively considerable. Therefore, the net emissions resulting from the General Plan with implementation of the Regional Reduction Plan reductions is still a cumulatively considerable contribution to criteria air pollutants for which the MDAB is in nonattainment (O₃, suspended particulates, and fine particulates). This significant impact of General Plan was identified in the General Plan EIR.

However, because implementation of the Regional Reduction Plan has a net reduction in air pollution, the *cumulative impact would be less than significant*.

■ References

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- . 2013. *iADAM: Air Quality Data Statistics*. <http://www.arb.ca.gov/adam/index.html> (accessed February 6, 2013).
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- Southern California Association of Governments (SCAG). 2004. *Southern California Compass Growth Visioning*.
- . 2009. *2008 Regional Comprehensive Plan*.
- . 2012. *Regional Transportation Plan/SCS*, April.

4.12.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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

The City of Needles is located on the far eastern side of San Bernardino County, in the Mojave Valley on the California/Arizona border and along the Colorado River.

The natural vegetation along the Colorado River generally consists of dense thickets of mesquite and tamarisk, with arrowweed and saltgrass in open areas and cattails in marshy areas. On the lower fans above the river vegetations are sparse stands of desert shrubs that include creosote bush, busage, Palo Verde, catclaw, alfileria, cacti, some galleta grass, and several annual weeds and grasses.

Fish that may be expected to be present in the Colorado River include white and black crappie, bluegill, carp, golden shiner, green sunfish, mosquito fish, rainbow trout, small-mouth and striped bass, threadfin shad, brown trout, and one special-status species, razorback sucker.

Several amphibians and reptiles have the potential for occurrence in the Needles area, including various frogs and toads (including leopard frog, a special-status species), a variety of lizards, desert tortoise (special-status species), and several snakes. Wildlife species in the Needles area include numerous birds and mammals.

Mapped wetlands and riparian areas are predominantly associated with the Colorado River and floodplain areas.

■ Regulatory Framework

Federal

Endangered Species Act

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

FESA Section 4(a) requires that critical habitat be designated by the USFWS “to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened.”

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

Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Critical habitat receives protection under FESA Section 7 through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Federal agencies and proponents of other projects involving federal funding or permits that are proposing projects within critical habitat are required to consult with USFWS as to the impacts such projects may have on protected species, and mitigation for any such impacts. FESA Section 10 provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

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

Clean Water Act, Sections 401 and 402

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

Board (RWQCB). The City of Needles 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. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the RWQCB.

State

California Endangered Species Act

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

California Fish and Game Code, Section 1600

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

Lower Colorado River Multi-Species Conservation Plan

The Lower Colorado River Multi-Species Conservation Program (MSCP) is a long-term multiagency effort to conserve and work toward the recovery of endangered species, and protect and maintain wildlife habitat on the Lower Colorado River (LCR). The program extends along the Lower Colorado River from Lake Mead to the U.S.-Mexico Southerly International Border and includes the full pool elevations of Lakes Mead, Mohave, and Havasu and the historic floodplain of the river. It is currently being implemented as a 50-year plan to create more than 8,100 acres of riparian, marsh, and backwater

habitat for four listed species and 16 other species native to the Lower Colorado River. Of the approximately 716,230 acres (1,119 square miles) 39 in the seven reaches of the LCR planning area, approximately 22,178 acres of urban/developed land are present, primarily in incorporated cities. These cities include Bullhead City, Lake Havasu City, Parker, San Luis, Somerton, and Yuma, Arizona; Blythe, and Needles, California; and Laughlin, Nevada. The City of Needles is within Reach 3 of the MSCP.

Local

Needles General Plan

The Needles General Plan policies that are generally applicable to biological resources³ are as follows:

Conservation and Historic Preservation Element

- Policy 1** Vigorously pursue the conservation and preservation of historical and natural resources.

■ Project Impact Evaluation

Thresholds of Significance

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

³ These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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There are sensitive plant and animal species within the City. The urbanized portion of Needles does not have high potential for containing sensitive species. However, the undeveloped areas of the City contain a variety of habitats with the potential to support sensitive species.

Implementation of the Regional Reduction Plan includes performance standards for new development, lighting efficiency standards, a Green Building Ordinance, and water efficiency measures. A number of measures would result in the installation of solar energy systems on existing and new housing and commercial development. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy-efficient equipment at the treatment facilities but does not increase capacity or the need for additional treatment that would involve activities that would require ground disturbance. Other than the potential for installation of off-site solar energy systems for commercial uses, none of the measures implemented in Needles would be likely to adversely affect special-status species or habitat.

Any of the Regional Reduction Plan measures implemented in Needles that would involve ground disturbance would be required to provide independent CEQA review and would be required to comply with the City's project approval process and to ensure compliance with Conservation and Historic Preservation Element Policy 1. If sensitive species were found, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. Mitigation for impacts to sensitive species is often in the form of acquisition or restoration of habitat, on site or off site, at a ratio to the area of impacted land that would be determined by the CDFW or USFWS. For projects proposed by federal agencies, or projects that would involve federal permits or funding, and that are sited within critical habitat for a listed species, the project proponent would be required under the FESA to consult with the USFWS regarding impacts and mitigation respecting listed species.

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

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Riparian areas in Needles are generally along the Colorado River. If implementation of a local measure would result in ground disturbance in a riparian area or other sensitive natural community, as described above, projects undergoing the City’s development approval process would be required to survey for sensitive biological resources. The City requires compliance with all applicable regulations pertaining to riparian habitat to ensure consistency with Conservation and Historic Preservation Element Policy 1. Prior to the issuance of grading permits for any project potentially affecting riparian habitat, the applicant is required to provide evidence that all necessary permits have been obtained from the CDFW (California Fish and Game Code Sections 1601–1603). If there are any impacts to riparian areas, the impacts would be required to be mitigated by the California Fish and Game Code Sections 1601–1603. In conclusion, projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
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The majority of wetlands is associated with the Colorado River. The types of measures implemented in Needles are not likely to affect bodies of water or wetlands, because they would be limited to water efficiency measures, retrofitting or new installations of solar energy systems on homes, and other energy-saving measures that would not result in ground disturbance, as noted above. If any ground disturbance associated with installing an off-site solar energy system for new commercial development has the potential to impact 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 RWQCB. The applicable permits would require mitigation as determined by the USACE, RWQCB, and/or CDFW for any consequent impacts. Consequently, impacts would be ***less than significant***. No mitigation is required.

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

River, washes, creeks, and utility easements in the City as wildlife movement corridors. There are trees and shrubs scattered throughout the City that may be used for nesting or roosting by migrating birds. The Regional Reduction Plan would not grant specific entitlements for development; therefore, implementation of the Regional Reduction Plan would not directly impact vegetation that could be used by migrating birds. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds and impacts would be *less than significant*. No mitigation is required.

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

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?
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Renewable energy and energy-efficiency projects that could be developed in Needles as a result of Regional Reduction Plan implementation would be required to demonstrate compliance with the LCR MSCP during the permit review process. Impacts would be *less than significant*. No mitigation is required.

■ Cumulative Impacts

Threshold	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Cumulative development in Needles could affect special-status species or habitat. The General Plan Environmental Assessment concluded cumulative impacts would be mitigated by policies and regulations. City, state, and federal biological resources requirements are intended to protect biological resources at a regional level, and individual projects would be in compliance with these regional protections. The proposed project would result in a less-than-cumulatively considerable contribution to this impact, because the measures that would be implemented would involve little, if any, ground disturbance. Further, any Regional Reduction Plan project that could affect special-status species or habitat would be required to mitigate impacts in accordance with existing regulations. The project's contribution would be less-than-cumulatively considerable. Therefore, the *cumulative impact would be less than significant*.

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
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Cumulative development in Needles could affect riparian habitat or other sensitive natural community. The General Plan Environmental Assessment concluded cumulative impacts would be mitigated by policies and regulations. If sensitive species were found on site, the project proponent would be required to consult with the CDFW and other agencies as applicable regarding impacts to sensitive species and ensuing mitigation. Projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. This existing permitting process substantially limits degradation of habitat on a regional level. The proposed project would result in a less-than-cumulatively considerable contribution to this impact, because the measures that would be implemented would involve little, if any, ground disturbance. Further, any Regional Reduction Plan project that could affect riparian habitat or other sensitive natural community would be required to mitigate impacts in accordance with existing regulations. Therefore, the ***cumulative impact would be less than significant.***

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
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While other cumulative development in Needles could directly affect wetlands, the types of measures that would be implemented in Needles are not likely to affect bodies of water or wetlands. In the unlikely event 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 would not result in impacts that would be cumulative considerable. The ***cumulative impact would be less than significant.***

Threshold	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
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Cumulative development in Needles could affect migratory species or corridors. The General Plan Environmental Assessment concluded cumulative impacts would be mitigated by policies and regulations. Because the Regional Reduction Plan would have no impact on wildlife corridors at a project level, the Regional Reduction Plan would not result in a cumulatively considerable contribution to cumulative impacts. Consequently, the ***cumulative impact would be less than significant.***

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
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Projects proposed under the Regional Reduction Plan and cumulative projects in the City would be required to demonstrate compliance with City requirements related to biological resources during the project's development review process. Therefore, there would be ***no cumulative impact***.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?
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Projects proposed under the Regional Reduction Plan and cumulative projects in the City would be required to demonstrate compliance with the Lower Colorado River Multi-Species Conservation Program during the project's development review process. Therefore, there would be ***no cumulative impact***.

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

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

U.S. Fish and Wildlife Service. n.d. National Wetlands Inventory.

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4.12.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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.

Archaeology

Liberal estimates have placed the initial presence of people in the California deserts as far back as 50,000 years or more. The evidence presented in favor of this early presence is generally dubious. Firm evidence of human occupation does not occur until about 15,000 years ago. These early peoples apparently relied on the hunting of large fauna and the collection of plant food resources. Extinct Pleistocene animals such as mammoths, camels, and horses may well have been hunted by these people.

The people inhabiting the region up until about 7,000 years ago have been termed, in chronological order, San Dieguito I (Malpais) through San Dieguito III. The vague distinctions between these subdivisions of San Dieguito are based upon minor changes in chipped stone assemblages.

By about 5,000 B.C. a new tradition, represented by the Pinto complex, is recognized based upon the occurrence of a fairly distinct form of projectile point, the Pinto point. Much contention exists pertaining to the complex as well as to whether or not seed food processing with manos and metates was occurring at this time.

Following the Pinto complex is the Armagosa tradition, which probably began a little less than 2,000 years ago. This has been subdivided into two phases by Rogers (1939). By Phase II small dart points are being used, along with manos and millingstones, and some sites have Grey ware pottery. This assemblage is similar to Basketmaker III material from southern Nevada and clearly display Anasazi influences.

The Armagosa complex evolves into the Yuman period about 1,200 years ago. This period is divided into three phases and lasts up until extensive European contact in the nineteenth century. Agriculture developed during the Yuman period, along with the extensive use of indigenous ceramics, and the development of wattle and daub houses, among other things.

Historically, the Needles region was occupied by the Mohave. These horticulturalists farmed the bottom lands adjacent to the Colorado River. The seasonal flooding of the River provided the moisture necessary to grow such crops as corn, wheat (introduced), beans, pumpkins, watermelons, and cantaloupes, Kroeber notes that fish were caught with seines or driven into scoops placed up shallow sloughs. The settlements of the Mohave were small and scattered along the river. The people mixed freely with one another and maintained more of a tribal outlook than a village-oriented perspective, which contrasts markedly with the clannishness of other native California groups. This tribal, or national, unity probably aided the Mohave in developing the military spirit that they are known for. Today, many descendents of these indigenous people live and work within the Needles region (Needles 1986, p. v-31).

History

The history of the Needles region can be dated from the Spanish explorations of Alarcon in 1540. Alarcon and his party traveled upon the Colorado from the Gulf of California, a distance of about 224 miles to the area of the present town of Needles. These early Spanish explorers encountered large populations of Mohave Indians living a peaceful existence along the banks of the Colorado.

In later years, the famed Coronado made a number of trips into the area though the place remained in virtual isolation until the establishment of the coastal missions in California after 1769. The Needles region came under the jurisdiction of the San Gabriel mission founded in 1771. The old Mohave trail along the river became more frequently traveled. Frey Francisco-Garces in 1776 traversed the desert passing through the Mohave Indian villages near the present City of Needles.

The famed trapper and Mormon scout Jedediah Smith led an American party through the area in 1827. Smith's party encountered hostile Mohaves and in the ensuing battle near Needles, half of Smith's men were killed. The fierce Mohaves ruled the region until the establishment of Fort Mohave (ca. 1848), 20 miles north of the present day Needles. Although no Spanish/Mexican land grants were specific to the Needles area their influence was felt though the mission attempted conversions of the local Indians during the years 1771–1834.

After the American takeover (1848), the first impetus for settlement occurred as a result of a government effort to find a suitable transcontinental route for a railroad. In 1854, Lt. Whipple led a team of engineers on a survey to determine the most practical route from St. Louis to the Pacific Ocean. The party forded the Colorado River at the present site of Needles. Whipple and his men traveled west from this point, a route now known as "Government Road." The result of this expedition was a report which indicated that a railroad through this area was possible and construction should begin at the earliest possible date.

The town of Needles was founded in 1883 coinciding with completion of the southern Pacific and Atlantic and Pacific Railroads (the Santa Fe Railroad purchased the line in 1895). The town derived its name from the mountains located in the area which appear to be needles pointed toward the sky. The railroad furnished a boom in the economy as well as the population, which exceeded 2000 by the first year. By the decade of the 1890s, Needles claimed its place as hub of the region—an entire town devoted to the railroad and its ancillary activities. The town incorporated in 1913.

Seven site areas were identified which exhibited potential for inclusion in the National Register of Historic places (Needles 1986, p. v-33).

Paleontology

Most of the City of Needles is underlain by old river terrace deposits adjacent to the modern floodplain of the Colorado River.

These terraces occur elsewhere at elevations of 40, 70, and 140 feet above the modern grade or level of the Colorado River and represent stages during the Ice Ages or Pleistocene Epoch when the river was higher in its drainage. These terraces reflect changes in the world sea level caused by the advance and retreat (melting) of global ice sheets and/or earthquakes and regional uplift. These deposits accumulated under a variety of fluvial (floodplain) and lacustrine (lake) environments and consist of sediments that range in grain size from fine clays to sands to coarser gravels and cobbles. Johnson and Miller dated the terraces between 250,000 years and 750,000 years old. This places these river terrace sediments in the older portion of the Rancholabrean fossil land mammal age. Fossils from this age are rare in Southern California, and any fossils recovered in these aged rocks from the Needles area would be considered significant.

According to local resident Maggie McShan, a large mammoth bone was recovered during a small excavation in the vicinity of the old cemetery in Needles. The specimen was apparently deposited in a local museum. Also, fossil woods have been recovered in conglomerates in these terrace deposits. McShan reports a fossil stump about 6 feet in length and 2 feet in diameter found near Needles. Records show there are several unsubstantiated reports of Pleistocene horse, camel, and mammoth bones. Reynolds also mentioned that there is potential for significant finds especially in the fine-grained lacustrine sediments (clays, silts, and fine sands) that occur within the city limits. In addition to the large Ice Age mammals, smaller mammals such as rodents, rabbits, shrews; reptiles such as lizards, snakes, and tortoises; birds, and fish could be recovered by water screening quantities of these fine-grained sediments with fine mesh screens.

At least three paleontological assessments have been conducted in Needles and the surrounding area. Although these reports do not specifically identify paleontological resources, they indicated the potential for finding fossils especially in areas where earthmoving would expose large areas of the underlying geology (Needles 1986, p. v-35).

Historical Resources in Needles

Designation Process

There are three general types of designations for significant cultural resources within the City, including archaeological resources, historical structures, historical districts, traditional cultural properties, and landscapes. The system includes federal designation in the National Register of Historic Places (NRHP) for resources of importance and relevance to national heritage, state-level designation in the California Register of Historical Resources (CRHR), and local designation as landmarks, preservation districts, structures of merit, and neighborhood conservation areas pursuant to the Historic Preservation Ordinance of the City of Needles. Each of these registers employs different criteria to determine whether a resource could be determined eligible for inclusion, and these criteria are further discussed below, in the Regulatory Framework.

Historic Resources Listed 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. Several resources within the City are listed on the NRHP (OHP 2013):

- Archeological Site No. D-4—listed in 1985
- El Garces—listed in 2002
- Piute Pass Archeological District—listed in 1973
- Topock Maze Archeological Site—listed in 1978

Historic Resources Listed 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.

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 Points of Historical Interest (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.

One California PHI is located in the City of Needles:

- Fort Piute/Piute Springs/Fort Beale/Piute Creek/Piute Hil

Historical Landmarks and Structures of Merit

Two historical landmarks or structures of merit have been designated. The designated resources are:

- National Old Trails Monument
- Von Schmidt State Boundary Monument

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

Needles General Plan

The Needles General Plan policies applicable to cultural resources⁴ are as follows:

Land Use Element

- Policy 12** Protect significant cultural and environmental resources in the City from exploitation.

Conservation and Historic Preservation Element

- Policy 1** Vigorously pursue the conservation and preservation of historical and natural resources.
- Policy 2** Continue to monitor conditions of historic and architecturally significant structures.

■ 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

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.

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
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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 City’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.

Consistent with General Plan Land Use Element Policy 12 and Conservation and Historic Preservation Element Policies 1 and 2, projects within the City of Needles are required to conserve and enhance in areas where cultural resources may be located, inventory, and evaluate such resources in accordance with CEQA, if discovered, to ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost. Further, if artifacts are detected, the City shall coordinate with the AIC to preserve the resources. Consequently, potential impacts to archaeological resources as a result of implementation of the Regional Reduction Plan would be *less than significant*.

Threshold	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
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Most of the City of Needles is underlain by old river terrace deposits adjacent to the modern floodplain of the Colorado River. Implementation of the Regional Reduction Plan in Needles is not expected to include activities that would directly result in extensive ground disturbance in previously undisturbed soils along old river terrace deposits.

General Plan Conservation and Historic Preservation Element Policy 1 would minimize impacts to paleontological resources that may occur in association with the Regional Reduction Plan. All projects within the City of Needles are required to follow this policy, which include records searches and surveys in areas where paleontological resources may be located, and the inventory and evaluation of such resources in accordance with CEQA, if discovered. Further, if artifacts are detected, the City shall coordinate with the AIC to preserve the resources. Consequently, potential impacts to paleontological resources as a result of implementation of the Regional Reduction Plan would be *less than significant*.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?
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The Regional Reduction Plan does not include activities that would directly result in extensive ground-disturbing activities, which renders it unlikely that human burials would be disturbed as a result of project implementation. In addition, and in the event human remains are encountered, the discovery is required to comply with California 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?
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Implementation of the Regional Reduction Plan would 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 City, including resources listed in or eligible for listing in the NRHP and/or CRHR. Significant impacts could include the delisting or

loss of eligibility of such resources. In addition, the completion of energy-efficiency retrofit activities and the installation of solar have the potential to result in significant impacts on buildings or structures of historic age (50 years old or older), or buildings or structures 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. The Needles General Plan Conservation and Historic Preservation Element Policies 1 and 2 and associated implementation program, would minimize impacts on historical resources through the completion of records searches and surveys in areas where historical resources may be located, as well as the inventory and evaluation of such resources in accordance with CEQA, if discovered. Further, if artifacts associated with a historical resource are detected, the City shall coordinate with the AIC to preserve the resources.

With the application of the General Plan policies and implementation measures for historical resources, as well as mitigation measure MM4.12.1-1 to address unidentified, potential historical resources (buildings or structures 50 years and older), impacts would be reduced to *less than significant*.

MM4.12.1-1 *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 City of Needles, 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.

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

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 past development has resulted in adverse changes in the significance of various archaeological resources prior to the implementation of regulations enacted for the purpose of avoiding disturbance, damage, or degradation of these resources. Future development may uncover or disturb known or previously unknown archaeological resources. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow CEQA, and the Needles General Plan policies. For future discretionary projects occurring under the Regional Reduction Plan, environmental review would occur at project-level. This would include research and studies to determine the presence or absence of resources. Thereafter, properties with resources would be addressed through mitigation efforts, including monitoring, recovery and/or in situ preservation, as appropriate, and based on the recommendations of a certified archaeologist. Therefore, the proposed Regional Reduction Plan's cumulative impact on archaeological resources is *less than significant*.

Past development has resulted in the 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 certain rock units within this region, there is always the possibility that ground-disturbing activities during future construction may uncover previously unknown paleontological resources or sites or unique geologic features. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow CEQA, and the Needles General Plan policies. For future discretionary projects occurring under the Regional Reduction Plan, environmental review would occur at project-level. This would include monitoring in known sensitive areas, as well as field surveys to determine the presence or absence of resources in areas with soils conducive to the preservation of fossil resources. Thereafter, the need or lack thereof for paleontological monitoring during project implementation would be completed on the recommendation of a professional paleontologist and via the approval of the Community Development Director. Therefore, the proposed Regional Reduction Plan's cumulative impact on paleontological resources is *less than significant*.

Urban development that has occurred over the past several decades in various portions of the Mojave Desert, which has resulted in the demolition and alteration of innumerable historical resources, and it is reasonable to assume that present and future development activities will continue to result in impacts on historical resources. Because all historical resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Federal, state, and local laws protect historical resources in most instances. Even so, it is not always feasible to protect historical

resources, particularly when preservation in place would prevent implementation of projects. However, compliance with existing City policies as outlined in the General Plan, and the implementation of mitigation measure MM4.12.5-1, requires qualified professionals to conduct site-specific cultural resource investigations for future activities associated with the Regional Reduction Plan. Compliance with existing policies and MM4.12.5-1 will ensure that impacts on historical resources are appropriately assessed and that mitigation is performed, as necessary. In this manner, the project's incremental contribution to cumulative effects on historical resources would not be cumulatively considerable, and ***cumulative impacts would be less than significant.***

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

Office of Historic Preservation (OHP). 2013. OHP Listed Resources.

<http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=36> (accessed May 2013).

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

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4.12.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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

The City of Needles is located in the lower portion of the Basin and Range geomorphic province, within the western Sonoran Desert, and area characterized by numerous mountain ranges that rise abruptly from broad, plain-like valleys or basins. Needles is situated in the Mojave Valley area of the Mohave Desert. The Mohave valley is ringed by the major landforms of the Sacramento and Dead Mountains to the west and the Black Mountains to the east.

The City is adjacent to the Lower Colorado River floodplain, which has low relief and includes the stream channel and associated features such as point bars and abandoned channels or meanders. Geologic materials in the area consist of alluvial materials (sand, gravel, silt, and clay) associated with several periods of extensive degradation and aggradation of the Colorado River, more recently in relation to development of the Hoover and Parker dams. The lower and upper areas of the City are separated by river terraces as high as 40 feet in some sections.

Faults and Seismic Hazards

There are no known active or potentially active earthquake faults in the Needles vicinity. The Needles area has experienced very few earthquakes. The San Andreas fault system, located approximately 200 miles to the west, could cause groundshaking in Needles if the magnitude were severe. Liquefaction has not been identified as a hazard in Needles.

Other Geologic Hazards

There is no existing evidence available to suggest the potential of mudslides or landslides. The native soils are characterized by fair to good stability under loading.

■ 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. The State has not delineated any Earthquake Fault Zones in Needles.

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 Needles 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.

CBC Chapter 16 addresses structural design requirements governing seismically resistant construction (Section 1604), including, but not limited to, factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building

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

Regional

No regional regulations exist pertaining to geologic and soil resources and hazards. Each local jurisdiction has their own criteria for regulating geologic and soil resources and hazards.

Local

Needles General Plan

The Needles General Plan policies that are applicable to geologic and soil resources and hazards⁵ are as follows:

Safety Element

- Policy 1** Pursue the protection of the existing population and future development from the hazards of flooding, seismic, and fire.

Land Use Element, Residential

- Policy 10** Insure that land uses are protected against potential erosion.

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

■ Project Impact Evaluation

Thresholds of Significance

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

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - > Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - > Strong seismic groundshaking
 - > Seismic-related ground failure, including liquefaction
 - > Landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
- Be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

Analytic Method

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

Effects Not Found to Be Significant

Threshold	<p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <ul style="list-style-type: none"> ■ Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ■ Strong seismic groundshaking ■ Seismic-related ground failure, including liquefaction ■ Landslides
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There are no Alquist-Priolo Earthquake Fault Zones in Needles, and there are no active or potentially active faults that pass through or near the City. The closest fault with a potential for causing groundshaking is the San Andreas fault, approximately 200 miles away. Liquefaction and landslide have not been identified as seismic hazards that could affect the City.

Implementation of Reduction Measure PS-1 under the Regional Reduction Plan would include several options to accomplish performance standards including energy efficiency measures, transportation reduction measures, and/or renewable energy measures. With PS-1, 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) would be within the footprint of that development. New development would be required to comply with the applicable seismic safety requirements 2010 CBC and the City’s Municipal Code to ensure consistency with Safety Element Policy S-1. None of the building energy or water efficiency measures that could be implemented by Needles would involve the development of occupied structures that could be susceptible to substantial adverse effects associated with seismic hazards. Impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project result in substantial soil erosion or the loss of topsoil?
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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) associated with PS-1 would be within the footprint of that development, which the City would review as permitting to ensure potential erosion impacts are mitigated in accordance with Land Use Element Policy LU-10. None of the building energy or water efficiency measures that could be implemented by Needles would involve extensive soil disturbance that could be a source of erosion or topsoil loss. Impacts would be **less than significant**. No mitigation is required.

Threshold	Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
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No geologic hazards such as unstable soils or slopes have been identified as development constraints in Needles. None of the reduction measures that could be implemented by Needles would involve the

development of occupied structures that could be susceptible to unstable soils or geologic conditions. Ground-mounted solar energy systems for new or existing development would be required to be designed to account for underlying soil conditions. Impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property?
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Native soils present in Needles are primarily sands and silts associated with the Colorado River floodplain deposits, which do not typically exhibit expansive properties. None of the reduction measures that could be implemented by Needles would involve the development of occupied structures that could be susceptible to expansive soil hazards. Ground-mounted solar energy systems would be required to be designed to account for underlying soil conditions. Impacts would be *less than significant*. No mitigation is required.

Threshold	Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
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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 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, adherence to CBC and City standards for development, as established in the Municipal Code, would reduce impacts of 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, there would be *no cumulative impact*.

■ References

California Geological Survey, Seismic Hazards Mapping Program. 2008. *Official Maps Released in Southern California*.

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

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

4.12.7 Greenhouse Gas Emissions

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

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

■ Environmental Setting

The proposed project is located within the Mojave Desert Air Basin (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 3 months have maximum average temperatures over 100°F. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, vehicular traffic, and meteorology.

The City of Needles emitted approximately 78,759 metric tons (MT) of carbon dioxide equivalents (CO₂e) in 2008. The emissions were calculated based on the 2012 RTP traffic modeling, data from utilities, and land use. The largest portion of the City's 2008 emissions were from electricity and natural gas use in buildings (48.7 percent), followed by emissions from transportation (44.6 percent). Table 4.12.7-1 (2008 Net Total Emissions) summarizes the City's net 2008 emissions of CO₂e as broken down by emissions category. This represents the baseline against which GHG emissions as a result of implementation of the Regional Reduction Plan are analyzed. A detailed breakdown of 2008 emissions by category is available in the Regional Reduction Plan.

■ Climate Change Background

Parts of the Earth's atmosphere act as an insulating blanket of the right thickness to trap sufficient solar energy and keep the global average temperature in a suitable range. The 'blanket' is a collection of atmospheric gases called 'greenhouse gases' based on the idea that these gases trap heat like the glass walls of a greenhouse. These gases, mainly water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and chlorofluorocarbons (CFCs), all act as effective global insulators, reflecting visible light and infrared radiation back to earth. Human activities, such as producing electricity and driving internal combustion vehicles, have contributed to the elevated concentration of these gases in the atmosphere. This in turn is causing the Earth's temperature to rise. A warmer Earth may lead to changes in rainfall patterns, smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans.

Table 4.12.7-1 2008 Net Total Emissions	
<i>Category</i>	<i>Metric tons of CO₂e</i>
Energy	35,964
On-Road Transportation	35,135
Off-Road Equipment	2,549
Solid Waste Management	3,915
Agriculture	0
Wastewater Treatment	196
Water Conveyance	999
Total	78,759
Excluded Stationary Sources under Title V Permits ^a	7,391

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 CO₂ emissions is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. A number of specialized industrial production processes and product uses, such as mineral or metal production, and the use of petroleum-based products, leads to CO₂ emissions.

CO₂ is removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle. Natural sources of CO₂ occur within the carbon cycle where billions of tons of atmospheric CO₂ are removed by oceans and growing plants and are emitted back into the atmosphere through natural processes. When in balance, total CO₂ emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, including burning of oil, coal, and gas and deforestation, increased CO₂ concentrations in the atmosphere by 35 percent as of 2005.

Methane

Methane is emitted from a variety of both human-related and natural sources. CH₄ is emitted during the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global CH₄ emissions are related to human activities. Natural sources of CH₄ include wetlands, gas hydrates,⁶ permafrost, termites, oceans, freshwater bodies, nonwetland soils, and wildfires. CH₄ emissions levels from a particular source can vary significantly from one country or region to another. These variances depend on many factors, such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes resulting in CH₄ emissions from both human and natural sources. Also, the implementation of technologies to capture and utilize CH₄ from sources such as landfills, coal mines, and manure management systems affects the emissions levels from these sources.

Nitrous Oxide

Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution reaching 314 parts per billion (ppb) by 1998. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce nitrous oxide. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N₂O.

Chlorofluorocarbons

Chlorofluorocarbons have no natural source, but were synthesized for uses as refrigerants, aerosol propellants, and cleaning solvents. Since their creation in 1928, the concentrations of CFCs in the atmosphere have been rising. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken, and levels of the major CFCs are now remaining static or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years. Since they are also a GHG, along with such other long-lived synthesized gases as CF₄ (carbontetrafluoride) and SF₆ (sulfurhexafluoride), they are of concern. Another set of synthesized compounds called HFCs (hydrofluorocarbons) are also considered GHGs, though they are less stable in the atmosphere and therefore have a shorter lifetime and less of an impact. CFCs, CF₄, SF₆, and HFCs have been banned and are no longer available. Therefore, these GHGs are not included further in this analysis.

■ Potential Effects of Global Climate Change

Climate change could have a number of adverse effects. Although these effects would have global consequences, in most cases they would not disproportionately affect any one site or activity. In other words, many of the effects of climate change are not site-specific. Emission of GHGs would contribute

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

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

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

Ecosystems and Biodiversity. Climate change could have effects on diverse types of ecosystems, from alpine to deep sea habitat. As temperatures and precipitation change, seasonal shifts in vegetation would occur, which would potentially have an effect on the distribution of associated flora and fauna species. As the range of species shifts, habitat fragmentation could occur, with acute impacts on the distribution of certain sensitive species. The IPCC states that “20 percent to 30 percent of species assessed may be at risk of extinction from climate change impacts within this century if global mean temperatures exceed 2 to 3°C (3.6 to 5.4°F) relative to pre-industrial levels” (IPCC 2007). Shifts in existing biomes⁷ could also make ecosystems vulnerable to invasive species encroachment. Wildfires, which are an important control mechanism in many ecosystems, may become more severe and more frequent, making it difficult for native plant species to repeatedly re-germinate. In general terms, climate change would put a number of stressors on ecosystems, with potentially catastrophic effects on biodiversity.

Human Health Impacts. Climate change may increase the risk of vector-borne infectious diseases, particularly those found in tropical areas and spread by insects—malaria, dengue fever, yellow fever, and encephalitis (USEPA 2008). While these health impacts would largely affect tropical areas in other parts of the world, effects would also be felt in California. Warming of the atmosphere would be expected to

⁷ A biome is a major ecological community classified by the predominant vegetation, and hence animal inhabitants.

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 CO₂ emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO₂ concentrations were found to have increased by nearly 30 percent above pre-industrial (c. 1760) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP), and is expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalents (CO₂e), and are often expressed in metric tons (MT) or millions of metric tons (MMT) of CO₂e.

- **Global Emissions**—Worldwide emissions of GHGs in 2004 were nearly 30 billion tons of CO₂e per year (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes) (United Nations 2007).
- **U.S. Emissions**—In 2004, the United States emitted 7.1 billion tons of CO₂e. Of the four major sectors nationwide—residential, commercial, industrial, and transportation—transportation accounts for the highest percentage of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. In 2008, the United States emitted 6.9 billion tons of CO₂e, with transportation accounting for the highest percentage of GHG emissions, approximately 32 percent (USEPA 2011).
- **State of California Emissions**—In 2004, California emitted approximately 483 million tons of CO₂e, or about 6 percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per-capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state’s GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California’s fuel use and GHG emissions is its mild climate compared to that of many other states. In 2008, California’s GHG emissions were approximately 478 million metric tons CO₂e, generally attributed to the reduced travel, and therefore, transportation emissions (USEPA 2010).
 - > The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the state’s GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as “other,” which includes residential and commercial activities (CEC 2007).

Various aspects of constructing, operating, and eventually discontinuing (demolition and disposal of waste) the use of industrial, commercial, and residential development will result in GHG emissions.

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

■ Regulatory Framework

Federal

U.S. Environmental Protection Agency

The USEPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

Federal Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, USEPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), which required USEPA to develop “mandatory reporting of greenhouse gasses above appropriate thresholds in all sectors of the economy ...” The Reporting Rule would apply to most entities that emit 25,000 MT CO₂e or more per year. Starting in 2010, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for USEPA to verify annual GHG emissions reports.

USEPA Endangerment and Cause and Contribute Findings

On December 7, 2009, USEPA signed the Endangerment and Cause or Contribute Findings for GHGs under Clean Air Act (CAA) Section 202(a). Under the Endangerment Finding, USEPA finds that the current and projected concentrations of the six key well-mixed GHGs—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF₆), and hydrofluorocarbons (HFCs)—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, USEPA found that the combined emissions of these well-mixed GHGs from new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. These findings did not by themselves impose any requirements on specific industries or other entities. However, this action was a prerequisite to finalizing USEPA’s Clean Air Act (CAA) Title V permitting regulations known as the “Tailoring Rule” under the for new, large point source emitters and corporate average fuel economy (CAFE) standards for light-duty vehicles for future years.

Clean Air Act Permitting (Tailoring Rule) for GHG Emissions

On January 2, 2011, USEPA required states to implement new pollution control measures designed to reduce GHG emissions from new large emission sources such as power plants and refineries. The new GHG standards fall under CAA Title V; while the USEPA oversees compliance with the CAA, individual states are in control of issuing Title V CAA 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/year Carbon Dioxide equivalents (CO₂e). In addition new sources that are not regulated under the CAA for other air pollutants, but have a PTE of at least 100,000 MT CO₂e/year must provide BACT for GHG emissions.

Updated Corporate Average Fuel Economy (CAFE) Standards

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

State

California Air Resources Board

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

Executive Order S-3-05

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

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

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

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHGs in California. California ARB has determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO₂e. California ARB has adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit set by AB 32. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health.

Part of California's strategy for achieving GHG reductions under AB 32 are the early action greenhouse gas reduction measures, which include the following: a low carbon fuel standard; reduction of emissions from nonprofessional 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 miles per gallon by 2020 (and more for years beyond 2020) and reduce GHG emissions from the transportation sector in California by approximately 14 percent. In June 2009, USEPA granted California's waiver request enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year. USEPA and the California ARB have worked together on a joint rulemaking to establish GHG emissions standards for model-year 2017–2025 passenger vehicles. As noted above, the federal government completed rulemaking in summer 2012 resulting in adoption of new standards that would lead to fleet average of 54.5 mpg in 2025.

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

SB 1078 and SB 107, California's Renewable Portfolio Standard (RPS), obligates investor-owned utilities (IOUs), energy service providers (ESPs), and Community Choice Aggregations (CCAs) to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent is reached, no later than 2010. The California Public Utilities Commission (CPUC) and California Energy Commission

(CEC) are jointly responsible for implementing the program. Senate Bill 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 City and SOI, and five other counties within Southern California.

Regional Comprehensive Plan

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

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

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

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, “people-scaled” communities
- Providing new housing opportunities, with building types and locations that respond to the region’s changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM₁₀, PM_{2.5}, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 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 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

Needles General Plan

The Needles General Plan policies, principles and standards that are applicable to GHG emissions⁸ are as follows:

Conservation and Historic Preservation Element

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|-----------------|--|
| Policy 1 | Vigorously pursue the conservation and preservation of historical and natural resources. |
| Policy 4 | Manage existing land uses and future development to insure minimization of pollution of the City's water supply or the Colorado River. |
| Policy 5 | Promote the use of water conservation in the community. |
| Policy 6 | Explore the feasibility of using treated waste water for landscaping of park, golf course and greenbelt areas. |
| Policy 7 | Insure the adequate supply and high quality of water in the community for future development. |

Housing Element

- | | |
|-------------------|--|
| Policy 5.1 | All new City buildings shall be constructed to meet or exceed the energy conservation standards in force at the time of their construction. |
| Policy 5.3 | The City will actively pursue all viable new sources of energy. |
| Policy 5.4 | The City will form a program to assist homeowners to identify areas in their home or practices that waste energy, and will attempt to offer incentives for rectifying such problems. |
| Policy 5.5 | The City will take every opportunity reasonably possible to educate the public about energy use within the City. |
| Policy 5.6 | The City will create an alternative energy ordinance and encourage other viable forms of alternative energy, and will seek grants to be able to offer incentives. |

⁸ These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

■ Project Impact Evaluation

Thresholds of Significance

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

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

Analytic Method

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

As stated above the GHG Reduction Target for the City is to reduce the GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020.

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

The emissions and emissions reduction calculations performed for the Regional Reduction Plan followed guidance provided by CAPCOA, other reference sources (such as the U.S. Environmental Protection Agency, California Energy Commission, California Air Resource Board, 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, SCAG, and local land use information. These sources were multiplied by GHG emissions factors from a variety of sources, including EMFAC2011, URBEMIS2007, and guidance from the reference sources listed above. 2020 business as usual emissions were estimated based on anticipated growth in the residential and commercial/industrial areas, and the projected increase in vehicle miles traveled determined by SCAG. Refer to Appendices A and B of the Regional Reduction Plan for a detailed methodology of the GHG emissions and emission reduction calculations. The complete Regional Reduction Plan is included in Appendix B of this EIR.

Because the impact each GHG has on climate change varies, a common metric of CO₂e is used to report a combined impact from all of the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential, and is expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions in this analysis are measured in terms of metric tons of CO₂ equivalents (MT CO₂e).

Note that some stationary sources within the City are permitted under CAA Title V. Permitted industrial process such as oil and gas production (combustion), petroleum production and marketing, chemical production, mineral processes, and other permitted industrial processes are strictly regulated under the CAA by MDAQMD, California ARB, and USEPA. The City cannot change in any way the industrial process and BACT emission reduction devices on these permitted sources. Because the City does not have jurisdictional control over these point source industrial processes, GHG emissions from these permitted stationary sources are not included in determining GHG Reduction Target setting or subject to City administered reduction measures associated with them in the Regional Reduction Plan. However, MDAQMD permit regulations, and in some cases the USEPA Tailoring Rule and California Cap and Trade Program will regulate and reduce GHG emissions from these permitted industrial process sources. GHG emissions from these permitted stationary sources in the City of Needles totaled 7,391 MT CO₂e in 2008.

Effects Not Found to Be Significant

Threshold	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
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Implementation of the Regional Reduction Plan in the City of Needles would result in the reduction of GHG emissions over the long term, which would be a beneficial effect. 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 4.12.7-2 (GHG Emission Inventories and Reductions in the City of Needles) quantitatively shows the reductions of GHG emissions in 2020 that result would result from implementation of the Regional Reduction Plan in the City of Needles and compares the reduced emissions with the City Reduction Target.

The reduction measures that reduce GHG emissions down to levels below the Reduction Target are discussed in Section 4.12.0 (Introduction to the Analysis) of this EIR. Regional Reduction Plan Chapter 4 has additional details of these reduction measures.

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

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

Threshold	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
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The proposed project is a GHG reduction plan and includes a baseline GHG emissions inventory for the year 2008, an emission reduction target for the year 2020, a forecasted emissions inventory under a business-as-usual scenario for 2020, and a reduced 2020 inventory that demonstrates the emissions reductions achieved with the implementation of the Regional Reduction Plan reduction measures. Table 4.12.7-2 (GHG Emission Inventories and Reductions in the City of Needles) summarizes the 2008 GHG emissions for the City. The emissions in 2008 totaled 78,759 MT CO₂e. The largest source of emissions was energy use, followed by transportation.

Table 4.12.7-2 GHG Emission Inventories and Reductions in the City of Needles					
Category/Emission Source	Metric tons of CO ₂ e				
	2008	2020 BAU	Plan Reductions	2020 with Plan	% Reduction
Building Energy	35,964	35,232	12,685	22,547	36.0%
On-Road Transportation	35,135	35,468	8,402	27,066	23.7%
Off-Road Equipment	2,549	2,587	300	2,287	11.6%
Solid Waste Management	3,915	3,989	49	3,940	1.2%
Agriculture	0	0	0	0	0.0%
Wastewater Treatment	196	201	101	101	50.0%
Water Conveyance	999	1,019	14	1,005	1.4%
GHG Performance Standard for New Development ¹	—	—	7	—	—
Total	78,759	78,496	21,556	56,939	27.5%
Reduction Target	—	—	11,550	66,946	14.7%
Does the Plan Meet the Reduction Target?	—	—	Yes	Yes	Yes
Reductions Beyond Target	—	—	10,006	—	—
Excluded Stationary Sources under Title V Permits ^b	7,391	7,807	—	—	—

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 Regional Reduction Plan Chapter 4 for a complete description of this measure.
- b. Excluded from target setting and reductions due to lack of jurisdictional control (see Analytical Method section above)

The 2020 BAU emissions inventory for the City was estimated in the Regional Reduction Plan using the Needles General Plan and SCAG growth rates for the City from 2008 to the year 2020. The BAU inventory represents the projected City emissions without the incorporation of recently adopted sustainability measures or reduction measures included in the proposed project. Table 4.12.7-2

summarizes the 2020 BAU emissions inventory. The emissions are an estimated at 78,496 MT CO₂e, a decrease of 263 MT CO₂e from the 2008 baseline. Different 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 11,550 MT CO₂e. This is the amount the City must reduce in order to reach its target. Implementation of the Regional Reduction Plan reduces 21,556 MT CO₂e of emissions in 2020, which exceeds the reduction goal by approximately 10,006 MT CO₂e. This is a reduction of approximately 27.5 percent in 2020. Therefore, the Regional Reduction Plan fulfills its own GHG reduction planning.

AB 32 is implemented through the Scoping Plan, which is the statewide plan for the reduction of GHG emissions. The Regional Reduction Plan builds complements the statewide efforts of the Scoping Plan by building upon the reduction measures administered by the state. For example, the Regional Reduction Plan Reduction Measure Energy-1: Energy Efficiency for Existing Buildings, implements the energy efficiency retrofits contemplated in the Scoping Plan. Solar installation for new and existing housing and commercial buildings shown in the reduction measures of the Regional Reduction Plan, provide additional renewable energy sources beyond what was contemplated in the AB 32 Scoping Plan. In addition, the AB 32 Scoping Plan shows that statewide emissions would be reduced by approximately 29 percent below 2020 BAU. The Needles section of the Regional Reduction Plan demonstrates that the City reaches approximately that level of reduction, and would be consistent with regional reduction goals for consistency with AB 32. All of the reduction measures in the Needles section 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 4.12.0 of this EIR and are described in further detail in Regional Reduction Plan Chapter 4.

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 Needles reduction measures do not include any local measures to provide the land use changes encouraged by the SCS. However, the City's General Plan includes the following General Plan Land Use Element and Circulation and Transportation Element policies to promote land uses that reduce VMT and vehicle trips:

Land Use Element

- Policy 1** The City shall encourage infill development in the core area and extend additional development into open space areas designated for future growth.
- Policy 16** Insure neighborhood compatibility of infill residential developments.
- Policy 26** Establish a public activity trail system throughout the community, containing bicycling, hiking, jogging, horseback riding, natural walks or a combination of

these to provide a link between open-space areas, community facilities, the Colorado River and the residential neighborhoods of the community.

- Policy 27** Promote quality design, visual attractiveness, proper location, adequate sites, sufficient off-street parking and a convenient circulation system for all recognized commercial areas in the City.

Circulation and Transportation Element

- Policy 3** Sidewalks, activity trails and walking facilities should be extended throughout the City to allow for more convenient and safer pedestrian movement.

- Policy 4** Provide a bus system to better serve the population of Needles and the surrounding communities.

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 4.12.7-2, the Regional Reduction Plan would reduce Needles transportation emissions in 2020 by more than 15 percent compared to 2008 GHG emissions. Therefore, the City's General Plan and the statewide and county reduction measures in the Regional Reduction Plan provide the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Needles. 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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4.12.8 Hazards/Hazardous Materials

This section of the EIR analyzes the potential environmental effects on hazards/hazardous materials, including hazardous materials, hazardous waste disposal, airport safety, emergency preparedness, and wildfire potential, in the City of Needles from implementation of the Regional Reduction Plan. Geologic and flood hazards are addressed separately in Section 4.12.7 (Geology/Soils) and Section 4.12.9 (Hydrology/Water Quality), respectively. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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 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.

Major industries in Needles where hazardous materials are used, stored, or disposed include the Chevron USA Inc. Needles Bulk Plant, Caltrans Maintenance Station, trucking and automotive businesses, and smaller commercial industries. Hazardous materials are used and stored at the City's wastewater treatment plant. Health care facilities, schools, and retail businesses also use hazardous materials and generate hazardous waste in small quantities.

Household hazardous waste includes such common items as motor oil, weed killers, household cleaners, wood preservatives, paints and paint thinner, auto and furniture polish, chemical drain cleaners, pesticides and fertilizers, and pool supplies.

Some facilities where hazardous materials were used in Needles resulted in soil or groundwater contamination. There are approximately twenty sites in Needles that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (known as the Cortese List). Some of the sites are being investigated and/or are undergoing remediation for hazardous materials contamination. Cleanups at some sites have been completed or no further action was deemed necessary by state agencies.

Railroad and airport hazards (Needles Airport) are also present in the City. There are no known extreme fire hazards within the City of Needles. However, due to the dry climate and vegetation surrounding the City, natural fire hazard risk is present.

■ Regulatory Framework

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

Federal

The USEPA is the primary federal agency that regulates hazardous materials and waste. The regulations are codified in Code of Federal Regulations (CFR) Title 40. USEPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. The Resource Conservation and Recovery Act of 1976 (RCRA) is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management also includes the treatment, storage, or disposal of hazardous waste. RCRA authorized the USEPA to authority to control hazardous waste from generation to transportation, treatment, storage, and disposal. The Comprehensive Environmental Response, Compensation, and Liability Act 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. Other key federal laws pertaining to hazardous materials and waste include the Emergency Planning and Community Right-to-Know Act (EPCRA) and Toxic Substances Control Act (TSCA). The U.S. Department of Transportation (USDOT) has established regulations (CFR Title 49) for the transport of hazardous materials and wastes.

State

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

Regional

San Bernardino Fire Protection District

The San Bernardino Fire Protection District, Hazardous Materials Division, was granted authority by the Cal/EPA to become the certified Unified Program Agency (CUPA) for San Bernardino County. The CUPA is directly involved in the inspection, permitting, and enforcement of hazardous materials

manufacturers, hazardous waste generators. USDOT and the California Highway Patrol (CHP) regulate the transportation of hazardous materials while the DTSC is actively involved in the storage of hazardous materials and the cleanup of hazardous waste sites. The San Bernardino Fire Protection District also provides wildland fire suppression services and hazardous materials incident response.

Local

Needles General Plan

The Needles General Plan policies that are applicable to hazards and hazardous materials⁹ are as follows:

Safety Element

- | | |
|-----------------|--|
| Policy 1 | Pursue the protection of the existing population and future development from the hazards of flooding, seismic, and fire. |
| Policy 4 | Insure the protection of people or wildlife from hazardous materials in the community. |

■ 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

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

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
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The Regional Reduction Plan includes reduction measures such as energy efficiency goals and renewable energy generation. Operation of the reduction measures would not involve the transport or use of hazardous materials, but installation of equipment and construction of new systems could involve the limited use of hazardous materials. The City would be responsible for ensuring projects comply with current federal and state regulations to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of hazardous materials and wastes. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be *less than significant*. No mitigation is required.

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

Threshold	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?
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Installation and operation of solar in new housing and commercial development (Energy-4 and Energy-5) and water efficiency improvements 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. There would be *no impact*.

Threshold	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
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There are approximately twenty sites in Needles that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (known as the Cortese List). Some of the sites are being investigated or undergoing remediation for hazardous materials contamination. The Regional Reduction Plan does not propose specific reduction measures at particular locations. Most of the measures would involve installation of solar energy systems on rooftops or ground-mounted. Other measures include water efficiency measures and other energy-saving standards. In the event a measure involves ground-disturbance (e.g., off-site solar installation for new commercial development), the City would review project plans to ensure development would not result in a significant hazard to the public or the environment if a listed site is present. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?
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The Needles Airport is located in the southern portion of the City and is a county-owned aviation facility. The Regional Reduction Plan does not provide housing or workplaces that would bring people into the vicinity of the Airport Influence Area. It is the policy of the City to coordinate with the airport authorities to ensure that proposed land uses within the airport safety zones are consistent with the adopted master land use plans and land use compatibility plans for the airport. The City review of proposed projects such as renewable energy generation during implementation of the Regional Reduction Plan within the airport safety zones and near the airports ensures that implementation of these types of uses near airports does not result in safety hazards to people in the area. The impact would be *less than significant*. No mitigation is required.

Threshold	Would the project, if within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?
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No private airstrips are located within or in close proximity to Needles. Therefore, *no impact* would occur.

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

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
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There are no known extreme fire hazards within the City of Needles. However, due to the dry climate and vegetation surrounding the City, natural fire hazard risk is present. None of the reduction measures that would be implemented by the City would involve the construction or operation of structures or development of new occupied uses that would be vulnerable to wildland fire hazard. There would be *no impact*.

■ Cumulative Impacts

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

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4.12.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality, including flood hazards, in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). Full reference-list entries for all cited materials are provided at the end of this section.

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

■ Environmental Setting

Regional Drainage

The Piute Wash, which extends from the Sacramento to the Piute Mountains west of Needles, is the main watershed for the area. The drainage area of Piute wash is 730 square miles and intersects the states of California and Nevada. The watershed receives approximately 5 inches of precipitation annually.

Local Surface Waters

Abundant supplies of surface and subsurface water are found in the Needles area due to its perennial stream, the Colorado River. The Colorado River main stream extends 1,400 miles from its northern headwaters in the Rocky Mountains to the Gulf of California. The flow of the river is almost entirely controlled by a series of dams and reservoirs as it traverses from the upper to lower Colorado River Basin. The lower Colorado River Basin is divided into ten divisions. Needles lies on the Mohave Valley Division of the River's reach. This division runs from Davis Dam to Topock, as shown in Figure 4.12.9-1 (Colorado River Drainage Basin). The principal surface water features in the area include intermittent washes, reservoirs, ponds and lakes. Water subsurface groundwater is present generally in an aquifer that runs the length of the Mohave Valley basin beneath the River. The Colorado River traverses in a southeasterly direction through the Mohave Valley and is located immediately north of Needles. Within the Mohave Valley, the floodplain is wider than the meandering course of the Colorado River and is bounded by a terrace. Needles lies on the western edge of the Mohave Valley floodplain (Needles 1986).

Groundwater

The City is located in the Colorado River Hydrologic Region, Needles Valley groundwater basin. The basin covers approximately 138 square miles of surface area. This basin underlies the portion of Mohave Valley that lies in eastern San Bernardino County. It is bounded by the Colorado River on the east and by nonwater-bearing rocks of the Dead Mountains on the northwest, of the Sacramento Mountains on the southwest, of the Chemehuevi and Whale Mountains on the south. The Mojave Valley, and its underlying groundwater basin, extends into Nevada and Arizona. The surface is drained by Piute Wash eastward to the Colorado River. Under natural conditions, groundwater flows eastward through the basin toward the Colorado River; however, pumping can reverse this flow pattern (CDWR 2004).



Source: Colorado River Basin, 1982.

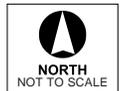


Figure 4.12.9-1
Colorado River Drainage Basin

Groundwater levels in the Needles area generally fluctuate within an annual range of 2 feet, except near pumping wells, irrigation land and the river. Most of the yields from wells come from highly permeable beds of sand and gravel. Groundwater levels generally are between 9 and 12 feet below the land surface in the floodplain. On the slopes that border the floodplain, the depth of water is determined by the height of the land surface above the water level in the floodplain opposite a given site.

Flood Hazards

Needles is subjected to flooding from seasonal flash floods and overflowing of the Colorado River. Under natural conditions the Colorado River annually overflowed its banks and flooded large areas of the adjacent lowland. Most early accounts concentrate on flood damages occurring in the Yuma area. Levee construction to provide flood protection at Yuma began in 1902. The most dramatic incident related to early Colorado River floods was the 2-year controversy of 1905–1906 to stop flows of the river through an irrigation cut leading to the Alamo canal and the Imperial Valley. Unusually high flows occurred on both the Gila and Colorado rivers during this period and, at one time, the entire flow of the Colorado River was actually passing through the irrigation cut. Ponding of the diverted flows in the Salton Sink formed the Salton Sea (Needles 1986).

With the completion of Hoover Dam in 1935, control of Colorado River floods up to an outflow of 40,000 cubic feet per second (cfs) became possible. If a flood equal in magnitude to the 1884 flood were to occur again, it could be regulated sufficiently to reduce the peak inflow of about 300,000 cfs to a peak outflow of 73,000 cfs. Inflow records show that the floods of 1941, 1952, and 1957 were the largest that have occurred since the construction of Hoover Dam. Each of these floods would have caused damage estimated at many millions of dollars to private property, public utilities and flood control structures, had Hoover Dam not been in place. The general aggradation of the Mohave Valley caused a threat of flooding to Needles until completion of a dredged channel with a stabilized bank in 1951 (Needles 1986).

An example of the sheet flooding potential in the northwestern portion of the City occurred in 1976 when a 300-foot-wide overflow of Road Runner wash at River Road undermined 4 feet of the roadway in the area. This flooding is typical of alluvial fan sheet flooding with unpredictable, highly braided flow paths and depths of flow ranging from 1 to 3 feet (Needles 1986).

On July 1, 1983, a disaster caused flood damage to Needles and other cities bordering lower reaches of the Colorado River. High runoff from rapidly melting snow from record snowfalls in the Rocky Mountains and late rains in winter and spring resulted in unusually high volumes of water entering the Colorado River Basin. This amount of water required Glen canyon, Hoover, Davis, and Parker Dams to release unprecedented volumes of water into the lower Colorado River system. These releases caused the Colorado River to flood low-lying areas, erode river banks, and raise adjacent groundwater levels in some areas. Initial releases from the Hoover Dam caused flooding to areas built within the 100-year floodplain in Needles and other cities along the river. Needles' groundwater levels were not affected. Flood damage to urban and agricultural lands extended from Davis Dam on the north to the Mexican border, an approximate distance of 250 miles (Needles 1986).

A major project undertaken to divert major portions of water from the community was the construction by the U.S. Army Corps of Engineers (USACE) of the Eagle Pass levees. This construction diverted flows, which formerly flowed directly into the center of the community, eastward to Airport wash and

eventually out to the Colorado River. While this project took care of the major flood flows coming from the southwest, Eagle Pass and Sidewinder Washes both remained to contribute large flood flows into the community. USACE subsequently constructed levees on the southerly side of the railroad diverting these flows and channelizing these flows into the S Street Channel. The Flood Control District also constructed levees and basins along the southwesterly side of the freeway from J Street to a point southeasterly of Lilyhill Drive. These levees and basins outlet under the freeway into more levees and eventually into the Needles Flood control Channel. The Needles Flood Control Channel and the S Street Channel are the only current existing major facilities for channelizing and transporting large quantities of floodwater to the Colorado River (Needles 1986). Figure 4.12.9-2 (Needles Flood Control Facilities) shows the flood control facilities in Needles.

Seiches

A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. While no active earthquake faults exist in the area, groundshaking from other faults in Southern California could cause property damage.

Mudflows

A mudflow is a type of landslide composed of saturated rock debris and soil with a consistency of wet cement. The City generally consists of gently sloping terrain and therefore mudflows are not expected to cause substantial damage.

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

National Pollution Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under CWA Section 402, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources include discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, most agricultural facilities are nonpoint sources and are exempt from NPDES regulation. Pollutants come from direct and indirect sources. Direct sources discharge directly to receiving waters, whereas indirect sources discharge wastewater to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point-source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Nonmunicipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are: Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues individual and general permits. Also, the USEPA has recently focused on integrating the NPDES program further into watershed planning and permitting (USEPA 2002).

NPDES has a variety of measures designed to minimize and reduce pollutant discharges. For example, pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways,

catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) are regulated by the USEPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre.

National Flood Insurance Program

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

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

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

State

State Water Resources Control Board

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

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. Under this act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan, or Basin Plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The City of Needles is in the Colorado River Basin, Region 7. The Water Quality Control Plan for this region was adopted in 1993 and includes amendments adopted by the Regional Board through June 2006. 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 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), 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

County of San Bernardino Stormwater Program

The San Bernardino County Stormwater Program has developed the Model Water Quality Management Plan guidance document to comply with the RWQCB's NPDES permit requirements. This guidance document requires that a project's post-development discharge not exceed predevelopment discharges

for 1-, 5-, and 10-year storms; or that a project proponent carry out additional analysis and mitigation to ensure that a project not adversely impact downstream erosion, sedimentation, or stream habitat.

Colorado River Basin Water Quality Control Plan

The Water Quality Control Plan for the Colorado River Basin, updated in February 2008, establishes water quality standards for groundwater and surface water in the basin; that is, standards for both beneficial uses of specific waterbodies and the water quality levels that must be maintained to protect those uses. The Basin Plan includes an implementation plan describing actions by the Colorado River Basin RWQCB and others needed to achieve and maintain the water quality standards. The Colorado River Basin RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's groundwater and surface waters. The Basin Plan lists water quality problems in the region, along with causes, where they are known. Plans for improving water quality are included for water bodies with quality below the levels needed to enable all the beneficial uses of the water.

Local

Needles General Plan

The Needles General Plan contains the following policies that are applicable to hydrology, water quality and flood hazards:¹⁰

Conservation Element

- | | |
|-----------------|--|
| Policy 4 | Manage existing land uses and future development to insure minimization of pollution of the City's water supply or the Colorado River. |
| Policy 7 | Insure the adequate supply and high quality of water in the community for future development. |

Safety Element

- | | |
|-----------------|--|
| Policy 1 | Pursue the protection of the existing population and future development from the hazards of flooding, seismic, and fire. |
|-----------------|--|

■ 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)

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

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Inundation by seiche, tsunami, or mudflow

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project violate any water quality standards or waste discharge requirements?
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Implementation of Regional Reduction Plan energy-efficiency measures may result in runoff during construction of individual co-generation facilities or energy efficiency retrofits, which could adversely affect water quality beyond standards specified by the SWRCB. However, all reduction measure development requiring ground disturbance would be subject to regional and local regulations, including the need for an SWPPP under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002). In addition, the City requires a grading permit for all developments that would require grading. Compliance with SWRCB's General Construction Activity Stormwater Permit regulations requiring an SWPPP, and the grading permit required by the City would ensure water quality standards are not exceeded. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be *less than significant*. No mitigation is required.

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

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?
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Energy retrofits and passive energy-producing components such as photovoltaic arrays would not alter existing drainage patterns in the City, as they would consist of structural alterations, not an increase in overall building footprint. The potential for water quality degradation in the City from erosion 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 would depend largely on the areas affected and the length of time soils are subject to erosion. If any facilities are constructed on vacant land or open space areas, this has the potential to alter existing drainage patterns; however, as noted above, all construction would be subject to regulations related to water quality, erosion, and stormwater runoff. Individual projects associated with implementation of the Regional Reduction Plan would be subject to review by the City prior to issuance of a grading permit, which process requires preparation of a drainage study and SWPPP. Consequently, any potential erosion impacts during implementation of the Regional Reduction Plan would be reduced to **less than significant**. No mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?
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Major historical floods have occurred in the City, where storm sheet flows resulting from overflows of the Colorado River have produced a variety of damage. The majority of the 100-year flood hazard areas within the City are located along the Colorado River. Implementation of energy-efficiency measures and water conservation would not involve development that would alter Colorado River flows, nor would they increase surface runoff through creation of new impervious surfaces such that the proposed project would cause new flooding or exacerbate existing flood conditions. There would be **no impact**.

Threshold	Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
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The development of any new facilities during implementation of the Regional Reduction Plan within a road right-of-way or other areas that may impact storm drains must be coordinated with the City prior to the beginning of construction. City Engineer's review would ensure that people and property are protected from flooding through responsible and efficient stormwater management. Compliance with NPDES permit requirements would ensure that the proposed project would not provide substantial additional sources of polluted runoff. The impact would be *less than significant*. No mitigation is required.

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

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

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?
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Implementation of the Regional Reduction Plan includes adoption of a Green Building Ordinance and increasing the use of recycled water. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy-efficient equipment at the treatment facilities. Solar energy systems would be installed on existing and new housing and would likely be roof-mounted. This would not result in placing structures in a 100-year flood hazard that would impede or redirect flood flows. Measure Energy-5 could result in development of off-site solar energy systems for new commercial development. If the commercial property is in a 100-year flood hazard area, development would be subject to review and approval of the City Engineer. The City requires that properties within a flood zone must have a California Registered Land Surveyor prepare an Elevation Certificate and design a Finish Floor Elevation for the new structure. As such, the development of any solar facilities within the City's 100-year flood areas would not impede or result in the redirection of flood flows in the City. Therefore, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?
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Energy retrofits, co-generation facilities, and passive energy solar arrays built during implementation of the Regional Reduction Plan may have a risk of flooding from dam failure. If these facilities are built in open space areas, they could be subject to increased risk from dam inundation depending on their

location. However, implementation of Regional Reduction Plan local measures would be subject to City review and approval, and the City's review would minimize public and private losses due to flood conditions by ensuring proper design of structures to prevent against flood damages, including failure of a levee or dam. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project inundation by seiche, tsunami, or mudflow?
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The City is several hundred miles from the Pacific Ocean; there would be no impacts associated with inundation by tsunamis. Seiches could occur downstream of reservoirs due to groundshaking at the reservoirs. The proposed project would not place occupied structures in flood-prone areas and would not alter reservoir operation. Mudflows could occur in drainage channels in Needles during flash floods, but are not expected to pose a substantial hazard in the City, due to the gently sloping terrain (Needles 1986), and the proposed project would not develop structures in drainage channels. Therefore, there would be ***no impact***.

■ Cumulative Impacts

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

■ References

- California Department of Water Resources (CDWR). 2004. *California's Groundwater Bulletin 118*. February.
- Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.
- . 1986b. *Environmental Assessment for the Needles General Plan*, January.
- San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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4.12.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a), associated environmental document (1986b), and the City's Housing Element (2005). Full reference-list entries for all cited materials are provided at the end of this section.

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

■ Environmental Setting

The City of Needles is located on the far eastern side of San Bernardino County, in the Mojave Valley on the California/Arizona border, along the Colorado River.

Needles is largely a residential community. The urban area is generally surrounded by non-developed desert land. The incorporated City currently consists of approximately 9,600 acres (15 square miles). However, only approximately 2,200 acres are currently used for urban activities with the remaining 7,400 acres vacant. Figure 4.12.10-1 (General Plan Land Use Map) shows the adopted land use plan for Needles.

Needles Municipal Airport is located approximately 5 miles south of Needles. The airport is owned and operated by the County of San Bernardino Department of Airports. Airport management is located at Apple Valley. Needles Airport is a General Aviation, Basic Utility Airport.

■ 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 required California ARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, California ARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented by 2010. The law further required that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide greenhouse gas emissions limit for 2020.

California ARB published its final report for Proposed Early Actions to Mitigate Climate Change in California in October 2007. This report described recommendations for discrete early action measures to reduce GHG emissions. The measures included are part of California's strategy for achieving GHG reductions under AB 32. Three new regulations are proposed to meet the definition of "discrete early action greenhouse gas reduction measures," which include the following: a low carbon fuel standard; reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (California ARB 2007b). California ARB estimates that by 2020, the reductions from those three measures would be approximately 13 million to 26 million metric tons (MMT) of carbon dioxide equivalents (CO₂e).

Under AB 32, California ARB has the primary responsibility for reducing GHG emissions. California ARB has published a staff report titled California 1990 GHG Emissions Level and 2020 Emissions Limit (California ARB 2007a) that determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO₂e. Additionally, in December 2008, California ARB adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit. This Scoping Plan proposes a comprehensive

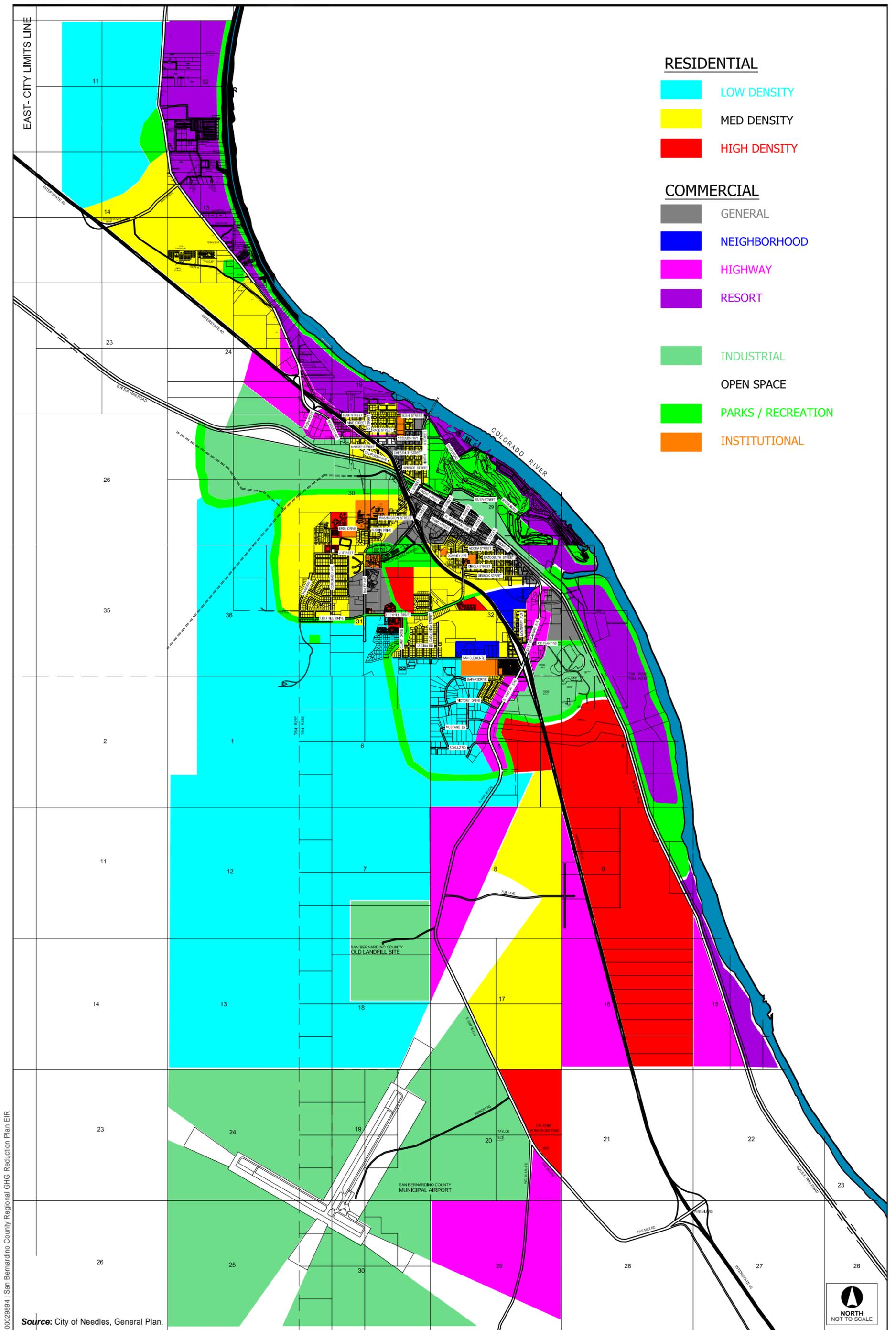


Figure 4.12.10-1
General Plan Land Use Map

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

Executive Order S-13-08

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

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

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

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

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and

possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

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

- To provide California with an adequate, reasonably priced, and environmentally sound supply of energy
- To respond to AB 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020
- To pursue California energy policy, which states that energy efficiency is the resource of first choice for meeting California's energy needs
- To act on the findings of California's Integrated Energy Policy Report (IEPR) that concludes that the Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions
- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes
- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards

Senate Bill 375

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

Regional

Southern California Association of Governments (SCAG)

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

Regional Comprehensive Plan

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

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

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

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

- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM₁₀, PM_{2.5}, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

SCAG Compass Growth Visioning

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

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

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions

regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

Mojave Desert Air Quality Management District (MDAQMD)

The City of Needles is located within the Mojave Desert Air Basin (Basin) and is, therefore, within the jurisdiction of the MDAQMD. The MDAQMD is responsible for monitoring air quality and planning, implementing and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. In 2009, the MDAQMD adopted the CEQA and Federal Conformity Guidelines. These guidelines provide a framework for the district to monitor development to ensure they do not cause or contribute to any new violation of any air quality standard; increase the frequency or severity of any existing violation of any air quality standard; or delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. The MDAQMD has adopted attainment plans for a variety of non-attainment pollutants. Table 4.12.3-4 (MDAQMD Attainment Plans) in Section 4.12.3 (Air Quality) lists the air quality attainment plans applicable to Needles.

Lower Colorado River Multi-Species Conservation Plan

The Lower Colorado River Multi-Species Conservation Program (MSCP) is a long-term multiagency effort to conserve and work toward the recovery of endangered species, and protect and maintain wildlife habitat on the Lower Colorado River (LCR). The program extends along the Lower Colorado River from Lake Mead to the U.S.-Mexico Southerly International Border and includes the full pool elevations of Lakes Mead, Mohave, and Havasu and the historic floodplain of the river. It is currently being implemented as a 50-year plan to create more than 8,100 acres of riparian, marsh, and backwater habitat for four listed species and sixteen other species native to the Lower Colorado River. Of the approximately 716,230 acres (1,119 square miles) in the seven reaches of the LCR planning area, approximately 22,178 acres of urban/developed land are present, primarily in incorporated cities. These cities include Bullhead City, Lake Havasu City, Parker, San Luis, Somerton, and Yuma, Arizona; Blythe, and Needles, California; and Laughlin, Nevada. The City of Needles is within Reach 3 of the MSCP.

Local

Needles General Plan

The Needles General Plan policies that are applicable to land use¹¹ are as follows:

Land Use Element, Urban Area

- | | |
|-----------------|--|
| Policy 1 | The City shall encourage infill development in the core area and extend additional development into open space areas designated for future growth. |
| Policy 2 | Preserve existing qualities of the City and upgrade overall environment. |
| Policy 6 | Promote cooperation with other governmental agencies. |

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 9 Encourage development along the Colorado River in accord with environmental sensitivities while insuring adequate public access.

Policy 13 Provide a balance of developmental growth while maintaining a rural atmosphere.

Housing Element

Policy 2.2 Promote a mixture of housing and commercial land-uses in downtown Needles to provide housing with access to commercial services for special needs households particularly elderly households and small business owners. Rezone the downtown area to allow for mixed uses and taller buildings. Specifically require that the new construction in the downtown area supply shops for commercial uses and/or office spaces on the ground floor with residential uses on the upper floors.

Policy 2.3 Encourage development of those areas to coincide with public services. Specifically require by ordinance that development be built only in areas with adequate public services.

Conservation and Historic Preservation Element

Policy 4 Manage existing land uses and future development to insure minimization of pollution of the City's water supply or the Colorado River.

Needles Municipal Airport Comprehensive Land Use Plan

The San Bernardino County Airport Land Use Commission has adopted a Comprehensive Land Use Plan for the Needles Municipal Airport.

■ **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 Needles General Plan, and the Needles Municipal Airport Land Use Plan.

Effects Not Found to Be Significant

Threshold	Would the project physically divide an established community?
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The developed portion of City of Needles is a highly urbanized area with well-established communities integrated into the land use plan. Implementation of the Regional Reduction Plan measures selected by Needles would not involve the development of any new structures or projects that would physically divide an established community. There would be *no impact*.

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

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

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

The City will meet and exceed this goal through a combination of state (~93 percent) and local (~7 percent) efforts. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will reduce GHG emissions in Needles' on-road and building energy sectors in 2020. An additional reduction of 1,485 metric tons (MT) CO₂e will be achieved primarily through the following local measures, in order of importance: Energy Efficiency for Existing Housing (Energy-1); Solar Installations for Existing Housing (Energy-7); and Outdoor Lighting (Energy-2). Needles' Plan has the greatest impacts on GHG emissions in the building energy, wastewater treatment, and on-road transportation sectors. Although Needles is implementing sustainable development practices in both current projects as well as in policies in the City's General Plan, the SCS implemented in the Mojave Desert (Transportation-1) will not result in any measureable GHG reductions for Needles itself.

Figure 4.12-2 (Emissions Reduction Profile for Needles) in Section 4.12.0 (Introduction to the Analysis) shows Needles' 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 the 2008 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total ("2020 Plan"), representing the total emissions reductions achieved in 2020. As stated

above, state/county reductions account for the majority (~93 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.12-3 (Emissions by Sector for Needles) in Section 4.12.0 presents emissions by sector, for both the 2020 BAU and the 2020 reduction or “Plan” scenarios. The largest emissions contributions are in the on-road transportation, building energy, and solid waste management emissions sectors.

Table 4.12-3 (Emission Reduction by Sector for Needles) in Section 4.12.0 summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction (“Plan”) results by sector. It shows the percent reduction in each sector’s emissions in 2020 and demonstrates that Needles exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, wastewater treatment, and on-road transportation sectors.

Figure 4.12-4 (Emission Reductions by Control and by Sector for Needles) in Section 4.12.0 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 Energy Efficiency for Existing Buildings (Energy-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 sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from increased transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The air quality attainment plans establish a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the Basin. In addition to setting minimum acceptable exposure standards for specified pollutants, the attainment plans incorporate SCAG’s growth management strategies that can be used to reduce vehicle trips and VMT, and hence air pollution. These include, for example, co-location of employment and housing, and mixed-use land patterns that allow the integration of residential and non-residential uses. The goals of the Needles General Plan promote sustainability.

While a separate document, the Regional Reduction Plan will be utilized as a companion document to the Needles General Plan to provide a more comprehensive and detailed framework for land-based policy decisions to reduce greenhouse gas emissions from existing and future development. The Regional Reduction Plan will further the goals and policies of the General Plan with regard to energy conservation and sustainable development by implementing, in addition to City programs already in place, measures and programs to reduce greenhouse gas emissions. All of the Land Use Element policies, as well as the others listed above, in the General Plan seek to maximize efficient use of resources, maintain a high quality of life, enhance job opportunities, promote sustainability, and facilitate access to transportation facilities. Policies related to historic resources are designed to protect and preserve recognized historic

resources, and any facilities constructed or energy retrofits performed pursuant to the Regional Reduction Plan would be required to be consistent with those policies.

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

The Needles Airport is located in the southern portion of the City. The City would coordinate with the airport authorities to ensure that any Regional Reduction Plan projects located within the airport safety zones are consistent with the adopted land use compatibility plan for the airport.

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

Threshold	Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?
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Renewable energy and energy-efficiency projects that could be developed in Needles as a result of Regional Reduction Plan implementation would involve little, if any, ground-disturbing activities and would be required to demonstrate compliance with the LCR MSCP during the permit review process. Impacts would be *less than significant*. No mitigation is required.

■ 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 Needles are consistent with the goals and policies of the City's General Plan. Therefore, there would be no cumulatively considerable contribution to potential conflicts with applicable plans, and this would be a *less-than-significant cumulative impact*.

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

———. 2005. *Housing Element (Updated) of the City of Needles General Plan*, April 12.

- San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.
- San Bernardino County Airport Land Use Commission. 1991. *Needles Municipal Airport Comprehensive Land Use Plan*, February.
- U.S. Department of the Interior (DOI), Bureau of Reclamation, U.S. Fish and Wildlife Services, Metropolitan Water District of Southern California. 2004. *Lower Colorado River Multi-Species Conservation Program Final Programmatic Environmental Impact Statement/Environmental Impact Report*, December.

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4.12.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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 deposits are rare geologic occurrences, occupying less than one-half of one percent of the earth's surface. Mineral deposits are widespread throughout San Bernardino County, being found in nearly all regions and environments. Past mining activity has involved the extraction of gold and silver from the Sacramento Mountains, and copper and black manganese from the Dead Mountains.

To date, the City of Needles has no mineral resource areas classified and designated by the state Mining and Geology Board under the Surface Mining Reclamation Act.

However, the California Desert Conservation Area (COCA) Plan indicates that the Needles area contains known and potential mineral resources. Known deposits of reserves or resources of strategic and/or imported and/or nationally important minerals lie 4 miles north of Needles. Potential locatable mineral resources lie about 4 miles west of Needles. The City of Needles lies in an area that has potential for leasable oil and gas. The Needles area has been determined "prospectively valuable" meaning it has similar geologic conditions to other areas where minerals have been extracted. The COCA Plan also indicates that there are good supplies of sand and gravel in the Needles area.

■ Regulatory Framework

Federal

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

The Office of Surface Mining Reclamation and Enforcement (OSM) is a bureau within the United States Department of the Interior. OSM is responsible for establishing a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations, under which OSM is charged with balancing the nation's need for continued domestic coal production with protection of the environment. OSM was created in 1977 when Congress enacted the Surface Mining Control and Reclamation Act. OSM works with 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.

Areas subject to California mineral land classification studies are divided by the State Geologist into various Mineral Resource Zones (MRZ) that reflect varying degrees of mineral potential. The four main classifications are the following:

- **MRZ-1**—Adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ-2**—Adequate information indicates that significant mineral deposits are present or there is a likelihood of their presence, and development should be controlled.

- **MRZ-3**—The significance of mineral deposits cannot be determined from the available data.
- **MRZ-4**—There is insufficient data to assign any other MRZ designation.

Local

Needles General Plan

The Needles General Plan policies that are applicable to mineral resources¹² are as follows:

Land Use Element

- Policy 12** Protect significant cultural and environmental resources in the City from exploitation.

Conservation and Historic Preservation Element

- Policy 1** Vigorously pursue the conservation and preservation of historical and natural resources.

■ Project Impact Evaluation

Thresholds of Significance

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

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

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
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There no MRZ-2 designated areas are within the City. Therefore, it is unlikely implementation of the Regional Reduction Plan would result in the loss of important mineral resources. There would be *no impact*.

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.

Threshold	Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?
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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

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

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

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

4.12.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). Full reference-list entries for all cited materials are provided at the end of this section.

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

■ Environmental Setting

Noise Terminology and Effects

Noise is defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the “A weighted” noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written dB(A) or dBA. Decibels are measured on a logarithmic scale, which quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling a traffic volume, would increase the noise level by 3 dBA; a halving of the energy would result in a 3 dBA decrease. Table 4.12.12-1 (Sound Levels of Typical Noise Sources and Noise Environments) shows the relationship of various noise levels to commonly experienced noise events.

Average noise levels over a period of minutes or hours are usually expressed as dB L_{eq} , or the equivalent noise level for that period of time. For example, $L_{eq(3)}$ would represent a 3-hour average. When no period is specified, a 1-hour average is assumed. Noise standards for land use compatibility, which are addressed in the General Plan Noise Element and the Municipal Code Noise Control chapter, are stated in terms of the Community Noise Equivalent Level (CNEL) and the Day-Night Average Noise Level (L_{dn}). CNEL is a 24-hour weighted average measure of community noise. The computation of CNEL adds 5 dBA to the average hourly noise levels between 7:00 PM and 10:00 PM (evening hours), and 10 dBA to the average hourly noise levels between 10:00 PM and 7:00 AM (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours. L_{dn} is a very similar 24-hour weighted average, which weights only the nighttime hours and not the evening hours.

It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increases or decreases; that a change of 5 dBA is readily perceptible, and that an increase (decrease) of 10 dBA sounds twice (half) as loud (Caltrans 1998).

Table 4.12.12-1 Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at a Given Distance)	Noise Environment	Scale of A-Weighted Sound Level in Decibels	Human Judgment of Noise Loudness (Relative to a Reference Loudness of 70 dB*)
Military Jet Take-off with After-burner (50 ft)	Carrier flight deck	140	<u>Hearing damage without protection</u> 128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)	Airport Runway	120	<u>Threshold of Pain</u> 32 times as loud
Pile Driver (50 ft) Rock & Roll Band (50 ft)	Construction Site Rock Concert	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Power Lawn Mower (3 ft) Motorcycle (25 ft) Propeller Plane Flyover (1000 ft) Diesel Truck, 40 mph (50 ft) Garbage Disposal (3 ft)	Boiler Room Printing Press Plant High Urban Ambient Sound	100 90 89	<u>Very Loud</u> 8 times as loud 4 times as loud 2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (3 ft) Electronic Typewriter (10 ft)	Busy Shopping Mall Indoor Sports Park	70	<u>Moderately Loud</u> * 70 dB (Reference Loudness)
Normal Conversation (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	½ as loud
	Office	50	¼ as loud
	Lower Limit of Urban Ambient Sound	40	<u>Quiet</u> ⅛ as loud
Bird calls (distant)	Rural Residential Area	30	
Soft Whisper (5 ft)	Quiet Bedroom	20	<u>Just Audible</u>
		10	<u>Threshold of Hearing</u>

Existing Setting

Traffic noise - including automobiles, trucks, and other motor vehicles - is a main source of noise in the City. The roadway network in the City consists of the Interstate 40 (I-40) freeway, U.S. Route 95, regional arterials, local public roads, and private roads. The I-40 and Atchison Topeka and Santa Fe (ATSF) railroad corridors are the greatest source of noise with levels ranging from 70 to 75 dBA. Both of these corridors impact residential areas. Another local source of noise is power boats on the Colorado River.

Stationary sources of noises may occur from all types of land uses. Residential uses typically generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses generate noise from heating, ventilation, air conditioning (HVAC) systems, loading docks and other sources.

Industrial uses may generate HVAC systems, loading docks and possibly machinery. Noise generated by residential or commercial uses are generally short and intermittent. Industrial uses may generate noise on a more continual basis due to the nature of its activities.

Noise-sensitive locations in Needles include the hospital, schools, community center, and residences adjacent to the I-40 and ATSF railroad.

■ Regulatory Framework

Federal

Federal Highways Administration

The Federal Highways Administration (FHWA) administers the protocols and methods of analyzing traffic noise. United States Code of Federal Regulations Title 23, Part 772 (23 CFR 772), provides the procedures for analysis and abatement of highway traffic noise and construction noise. It provides technical assistance to state authorities, in conjunction with other local and federal authorities, to prepare and execute appropriate noise review and abatement programs for roadway and highway construction noise impacts. The maximum highway-related noise level considered acceptable for land uses along highways is 65 dBA CNEL.

Federal Aviation Administration

The primary responsibility of the Federal Aviation Administration (FAA) in regard to noise is the enforcement of the FAA Noise Standards (Title 14, Part 150), which prescribes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs. The FAA establishes the 65 dB CNEL contour of an airport as the threshold for evaluation of potential noise impacts. The maximum airport-related noise level considered compatible with NSLU is 65 dBA CNEL.

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, in the Transit Noise and Vibration Impact Assessment published in 2006. The FTA criteria do not establish a screening level for potential impacts. Rather, the FTA noise impact criteria are based on comparison of the existing outdoor noise levels and the future outdoor noise levels from the transit project. 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 Department of Transportation

The California Department of Transportation (Caltrans) administers the FHWA requirements for analysis and abatement of highway traffic noise and construction noise (23 CFR 772) in California. Caltrans also has additional technical methodologies for analysis of roadway and highway construction noise in California. The Caltrans Traffic Noise Analysis Protocol (CATNAP) and Technical Noise Supplement (TENS) provide the methodology and procedures for analysis and abatement of roadway noise in the 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.

California Airport Noise Standards

The 1990 California Airport Noise Standards require airport proprietors, aircraft operators, local governments, pilots, and the California Department of Transportation Division of Aeronautics to work cooperatively to diminish noise. This requirement is accomplished by controlling and reducing noise in the communities in the vicinity of airports. The level of noise acceptable to a person residing in the vicinity of an airport is established as a CNEL value of 65 dBA. The limitation on airport noise in residential communities is established to be 65 dBA CNEL for proposed new airports, active military airports being converted to civilian use, and existing civilian airports.

California Department of Health Services (DHS)

The effects of noise levels on various land uses were studied by The California Department of Health Services (DHS) Office of Noise Control. Based on that study, the DHS established four categories for to determine the severity of noise impacts on these various land uses.

Table 4.12.12-2 (Land Use Compatibility for Community Noise Exposure) details a compatibility chart for community noise with respect to land use as prepared by the California Office of Noise Control. It identifies four categories of exterior noise levels for different land uses. These categories are, normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Conditionally acceptable indicates that new development of that land use should only be undertaken after a detailed analysis of the noise and required noise insulation features to reduce interior noise levels have been incorporated into the design. A normally acceptable designation, by contrast, indicates that standard development can occur with no special noise reduction requirements.

The state interior and exterior noise standards for varying land uses are included in Table 4.12.12-3 (California Interior and Exterior Noise Standards). This represents standards for interior noise as well as exterior noise within “habitable” areas.

Regional

There are no regional regulations related to noise.

Local

Needles General Plan

The Needles General Plan policies that are applicable to noise¹³ are as follows:

Noise Element

- | | |
|-----------------|---|
| Policy 1 | Protect residential and other sensitive land uses from major incompatible noise sources such as major transportation routes and facilities, as well as industrial and commercial areas. |
| Policy 2 | Insure that new development occurring within noise impact areas is compatible with existing noise levels. |

The General Plan Noise Element establishes maximum permissible noise levels, which are listed in Table 4.12.12-4 (City of Needles Maximum Permissible Noise Levels).

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.

Table 4.12.12-2 Land Use Compatibility for Community Noise Exposure

Land Use Category	Use	Exterior Noise Level (CNEL)					
		55	60	65	70	75	80
Residential/ Lodging	Single-Family/Duplex/Mobile homes						
	Multi-Family						
	Hotel/Motel						
Public/ Institutional	Schools/Hospitals/Churches, Hospitals, Nursing Homes						
	Auditoriums/Concert Halls						
Recreational	Sports Arena, Outdoor Spectator Sports						
	Playgrounds, Neighborhood Parks						
	Golf Courses, Riding Stables, Water recreation, Cemeteries						
Commercial	Office Buildings, business, commercial, and Professional						
Industrial	Industrial, Manufacturing, Utilities, Agriculture						

SOURCE: California Office of Noise Control and the Governor's Office of Planning and Research.

-  CLEARLY ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  NORMALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
-  NORMALLY UNACCEPTABLE—New construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with noise insulation features included in the design.
-  CLEARLY UNACCEPTABLE—New construction or development clearly should not be undertaken.

Table 4.12.12-3 California Interior and Exterior Noise Standards			
<i>Land Use</i>		<i>CNEL (dBA)</i>	
<i>Categories</i>	<i>Uses</i>	<i>Interior^a</i>	<i>Exterior^b</i>
Residential	Single- and multifamily, duplex	45 ^c	65
	Mobile homes	—	65 ^d
Commercial	Hotel, motel, transient housing	45	—
	Commercial retail, bank, restaurant	55	—
	Office building, research and development, and professional offices	50	—
	Amphitheatre, concert hall, auditorium, movie theatre	46	—
	Gymnasium (Multipurpose)	50	—
	Sports Club	55	—
	Manufacturing, warehousing, wholesale, utilities	65	—
	Movie theatres	45	—
Institutional/Public Space	Hospital, school classroom/playground	45	65
	Church, Library	45	—
Open Space	Park	—	65

SOURCE: California Office of Noise Control and the Governor's Office of Planning and Research.

a. Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors.

b. Outdoor Environment Limited to:

- Private yard of single-family dwellings
- Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
- Mobile home parks
- Park Picnic area
- School playgrounds
- Hospital patios

c. Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided in Chapter 12, Section 1205 of the Uniform Building Code.

d. Exterior noise levels should be such that interior noise levels.

Table 4.12.12-4 City of Needles Maximum Permissible Noise Levels		
<i>Land Use Areas</i>	<i>Exterior</i>	<i>Interior</i>
Noise Sensitive Areas (hospitals, rest homes)	45–65 dBA	45 dBA
Residential Areas	45–65 dBA	45 dBA
Commercial Areas	45–70 dBA	55 dBA
Industrial Areas	45–75 dBA	—

SOURCE: City of Needles, *Needles General Plan Policy Document*, Noise Element (February 18, 1986).

— = Standard not developed

■ Project Impact Evaluation

Thresholds of Significance

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

- Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels
- If within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels

Analytic Method

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact noise-sensitive receptors.

Effects Not Found to Be Significant

Threshold	Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
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Implementation of the Regional Reduction Plan includes adoption of a Green Building Ordinance and water efficiency measures. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy-efficient equipment at the treatment facilities but does not increase capacity or the need for additional treatment. A number of measures would result in the installation of solar energy systems on existing and new housing and commercial development. Installation and/or construction of solar energy systems and equipment upgrades would be a temporary source of noise. However, none of the measures implemented in Needles would be expected to be a source of noise that would exceed the standards established in the General Plan (Table 4.12.12-4).

Nonetheless, any development that implements the Regional Reduction Plan, including energy-generating facilities, would be required to be designed in such a way, e.g., through setbacks or shielding, that future noise levels, if any, do not exceed these standards. Therefore, installation of these energy-

generating structures would likely be constructed away from sensitive uses, and would not result in any adverse noise impacts. Each specific development project would undergo evaluation prior to project approval for consistency with the Needles General Plan policies and standards. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
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Construction vibration that could occur during installation of renewable energy features would not be substantial, and if these activities were to occur on or near fragile buildings, all appropriate measures would be implemented to reduce the effect of any groundborne vibration at the sensitive receptor. Operation of solar energy systems, water conservation measures, and equipment upgrades would not be a source of groundborne vibration or groundborne noise levels. Therefore, this impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
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Implementation of the Regional Reduction Plan would not result operation of facilities that would be noise-generating. Solar energy systems installed on or adjacent to residential and commercial uses would not generate noise. Water efficiency practices and equipment upgrades would also not be a source of 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?
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As noted above, the types of measures implemented in Needles are not expected to be a substantial source of noise. Some noise could be generated during installation or construction of solar energy systems, but it would be temporary and of short duration. Further, each specific project that implements the Regional Reduction Plan would undergo evaluation prior to project approval for consistency with Needles General Plan policies and standards. 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?
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The City is located approximately 2.5 miles south of the Needles Airport. The proposed project would not site new occupied land uses that could be exposed to aircraft noise. 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?
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No private airstrips are located within or in close proximity to Needles. There would be *no impact*.

■ Cumulative Impacts

Because the Regional Reduction Plan does not create significant noise and groundborne vibration impacts 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 Department of Transportation (Caltrans). 1998. *Technical Noise Supplement*.

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

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

4.12.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b), and the City’s Housing Element (2005). 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

Needles is largely a residential community, with limited local employment dominated by tourism, government (local, state, and the Bureau of Land Management), utilities (Southwest Gas) and the BNSF Railroad. Residents in Needles often commute to locations in Arizona and Nevada for work.

The population of Needles was 4,844 in 2010, slightly up from 2000, although greatly decreased from 1990 when 5,191 people lived there, a decrease of approximately 7 percent. Table 4.12.13-1 (Socioeconomic Data for Needles) presents socioeconomic data for Needles including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

<i>Category</i>	2008	2020
Population	4,844	4,941
Housing (du)	1,918	1,956
Single-Family (du)	1,106	1,116
Multifamily (du)	812	840
Employment (jobs)	3,323	3,145
Agricultural (jobs)	1	6
Industrial (jobs)	444	533
Retail Commercial (jobs)	886	770
Nonretail Commercial (jobs)	1,993	1,836

du = dwelling unit

Even with negative growth, the City has continued to encourage the production of housing to meet all needs, even when the demand has decreased. The City has extended City services, including water and sewer, for the development of affordable and/or special needs housing, and encouraged infill within the City’s urban core. The City has encouraged incentives for development of affordable or special needs housing, including free or low-cost land, partnering with the City, increased density, reductions of utility and impact fees (City of Needles 2005). However, the City does not anticipate much new construction before 2020 (SANBAG 2012).

■ 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. SCAG regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

Regional Transportation Plan

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

SCAG Compass Growth Visioning

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

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

■ **Sustainability**—Preserving natural surroundings

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

Local

Needles General Plan

The Needles General Plan policies that are applicable to population/housing¹⁴ in the context of implementing the Regional Reduction Plan in Needles are as follows:

Land Use Element, Urban Area

- Policy LU-1** The City shall encourage infill development in the core area and extend additional development into open space areas designated for future growth.
- Policy LU-7** Provide and maintain the neighborhood-unit principles where feasible in the community.
- Policy LU-12** Provide a balance of developmental growth while maintaining a rural atmosphere.

Land Use Element, Residential

- Policy LU-17** Provide a range of residential densities in the City.
- Policy LU-19** Insure that infilling new and rehabilitated residential structures are compatible with the overall established character of the neighborhood.

Housing Element

- Policy H-1.2** Improve and conserve existing residential neighborhoods.
- Policy H-2.2** Promote a mixture of housing and commercial land-uses in downtown Needles to provide housing with access to commercial services for special needs households particularly elderly households and small business owners. Rezone the downtown area to allow for mixed uses and taller buildings. Specifically require that the new construction in the downtown area supply shops for commercial uses and/or office spaces on the ground floor with residential uses on the upper floors.

■ **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:

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.

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere

Analytic Method

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

Effects Not Found to Be Significant

Threshold	Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
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Implementation of the Regional Reduction Plan would not induce substantial population growth that could exceed local and regional growth projections either directly or indirectly. The project would not result in an increased demand for housing nor would it result in permanent employment-generating activities that would generate demand for housing. No extension of infrastructure is proposed. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
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The Regional Reduction Plan would not involve the development of any structures or facilities that would displace existing housing. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
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The Regional Reduction Plan would not involve the development of any structures or facilities that would displace people. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be ***no impact***.

■ Cumulative Impacts

Because the Regional Reduction Plan would not result in significant impacts on population and housing at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, there would be ***no cumulative impact***.

■ **References**

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

———. 2005. *Housing Element (Updated) of the City of Needles General Plan*, April 12.

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

4.12.14 Public Services

This section of the EIR analyzes the potential environmental effects on public services (fire protection and emergency medical response services, police protection services, schools, and libraries) in the City of Needles from implementation of the Regional Reduction Plan. Park services are addressed in Section 4.12.15 (Recreation). Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.12.17 (Utilities/Service Systems). Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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 protection in the City of Needles is provided by the County of San Bernardino Fire Department's Division 5, which covers an area of 7,968 miles and a population of 49,648. Division 5 has sixteen fire stations and serves a number of cities and communities including: Big River, Earp, Havasu Landing, Johnson Valley, Joshua Tree, Landers, Needles, Pioneer Town, Wonder Valley, and Yucca Valley. Needle's Fire Department is located on Front Street.

Police Protection Services

Needles Police Department

Police protection services are provided by the San Bernardino County Sheriff's Department through a contract that was created in 1989. The Needles Police Department is located in the Civic Center. Other law enforcement agencies in the Needles area include: California Highway Patrol, and BLM Rangers who have different areas of authority. Needles has one of the lowest crime and highest clearance rates of any city in the country.

Schools

The City of Needles is served by the Needles Unified School District (NUSD), which serves the largest geographical area in the continental United States. NUSD has eight schools: five elementary schools, one middle school, one high school, and one educational training center. Within the actual City of Needles there are three elementary schools (Katie Hohstadt Elementary, Grace Henderson Elementary, Vista Colorado Elementary), one junior high school (Needles Middle School) and one high school (Needles High School), totaling 1,107 in student enrollment.

There is one higher-education facility. The Palo Verde College District began serving Needles and surrounding areas in 1998 when an agreement was made to transfer responsibility with the San Bernardino Community College District, which had been providing limited classes to the area since 1968.

Libraries

Library services are provided by the San Bernardino County library system. The Needles Branch Library is located within the City on 1111 Bailey Avenue and has a collection of 26,000 books.

■ Regulatory Framework

Federal

Federal Fire Protection Standards

The National Fire Protection Association (NFPA) Code Section 1710 contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. The code also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. The code addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

State

California Education Codes

California Senate Bill 50 modifies Government Code Section 65995 to limit the acquisition of development fees by local agencies to three levels set in Government Code Sections 65995, 65995.5, and 65995.7 and prohibits a local agencies from denying a legislative or adjudicative action under CEQA involving real estate development on the basis of the inadequacy of school facilities.

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

There are no regional regulations applicable to public services as they relate to the Regional Reduction Plan in Needles.

Local

Needles General Plan

There are no General Plan policies pertaining to public services that are directly applicable to implementing the Regional Reduction Plan in Needles.

■ Project Impact Evaluation

Thresholds of Significance

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

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
 - > Fire protection and emergency medical response
 - > Police protection
 - > Schools
 - > Libraries

Analytic Method

The reduction measures selected by Needles in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in adverse environmental effects related to the provision of fire protection, emergency medical response, and police protection services or schools or libraries.

Effects Not Found to Be Significant

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical response, police protection, schools, or libraries?
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Demand for fire protection and law enforcement services is generally based on population and land use changes that increase the number of facilities and structures requiring these services. None of the measures selected by Needles in the Regional Reduction Plan would increase resident population in the City; therefore, service ratios, response times, or performance objectives would not be affected. Implementation of the measures would not result in new or expanded facilities requiring fire protection or law enforcement services; therefore, there would be no demand for new or altered fire or police facilities, the construction of which could result in environmental impacts. Similarly, the demand for schools and libraries is population-based. None of the measures selected by Needles in the Regional Reduction Plan would increase resident population in the City, requiring the need for new or expanded schools or libraries, the construction of which could result in environmental impacts. Therefore, there would be *no impact*.

■ Cumulative Impacts

Implementation of the Regional Reduction Plan measures in Needles would not result in any project-level impacts. Therefore, there would be *no cumulative impacts*.

■ References

Palo Verde College. 2013. Palo Verde College Needles Center.

http://www.paloverde.edu/needles_center/about.html (accessed May 24, 2013).

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

———. 1986b. *Environmental Assessment for the Needles General Plan*, January.

———. 2013. Needles Schools. <http://www.cityofneedles.com/Pages/About-Needles/Schools.html> (accessed May 24, 2013).

San Bernardino, County of. 2013. San Bernardino County Sheriff-Coroner Department: <http://www.co.san-bernardino.ca.us/sheriff/patrol/Needles.asp> (accessed May 23, 2013).

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

San Bernardino County Fire Department. 2013. Division 5, Introduction. http://www.sbcfire.org/fire_rescue/Division5/Division5_intro.aspx (accessed May 28, 2013).

4.12.15 Recreation

This section of the EIR analyzes the potential environmental effects on public parks and other recreational facilities in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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

Parks and Recreational Facilities

The City of Needles has approximately 40 acres of dedicated park space, all with a variety of amenities including: ball parks, picnic tables, restrooms, swimming pool, physical fitness courses, boat launching sites, playground equipment, running track, tennis courts, and skate park.

Recreational facilities in Needles include the River's Edge Golf Course, Needles Recreation Center, Needles Municipal Aquatic Center, and Senior Citizen Center. The River's Edge Golf Course is owned and operated by the City and is the only golf course in the tri state area located on the Colorado River. The Needles Recreation Center offers a number of different targeted youth programs including: sports programs, dance classes, summer day camp, after school programs and more. The Aquatic Center is open from June through August and offers morning exercise programs, swim lessons and facility rentals for parties. There is also a park within the complex with picnic tables/benches and barbecue stands. The Senior Citizens Center offers several services including transportation to a variety of amenities, meal programs, and Bingo nights.

Trails and Recreational Linkages

There are a number of opportunities to hike and explore on the trails throughout the City of Needles. Trails to note are the old Mojave Indian tribe trails that lead to the ancient Mojave caves and the Pioneer Emigrant trail that leads to the Piute Springs.

Regional Recreational Facilities

There is an abundant supply of regional recreational facilities within close proximity to Needles. These include: Park Moabi, Lake Havasu National Wildlife Refuge, Lake Havasu State Park, Sara Park, and Fort Mohave Reservation. Park Moabi is located 11 miles southeast of Needles and offers water based activities as well as overnight camping. Lake Havasu National Wildlife Refuge is a 4,000-acre network of ponds, open bays, and channels. Lake Havasu State Park is Arizona's largest state park and encompasses more than 13,000 acres of low desert. Sara Regional Park is located 6 miles south of Lake Havasu City and has ball fields, a shooting range, moto-cross trails, and a radio controlled aircraft field. Finally, Fort Mohave Reservation, which is located 10 miles north of Needles, offers hiking, boating, fishing and camping in addition to cultural information on the Mohave Indians.

■ Regulatory Framework

Federal

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

State

Quimby Act

The Quimby Act (California Government Code Section 66477) is state legislation that requires the dedication of land and/or fees for park and recreational purposes as a condition of approval of tentative map or parcel map. The Quimby Act establishes procedures that can be used by local jurisdictions to provide neighborhood and community parks and recreational facilities and services for new residential subdivisions.

Regional

San Bernardino County Regional Parks Division

The San Bernardino County Regional Parks is administered by the San Bernardino County Regional Parks Division and the San Bernardino County Regional Parks Advisory Commission. The San Bernardino County Regional Parks division operates the Mojave Narrows Regional Park, Mojave River Forks Regional Park and Park Moabi.

Local

Needles General Plan

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

Land Use Element, Community Facilities

- Policy LU-26** Establish a public activity trail system throughout the community, containing bicycling, hiking, jogging, horseback riding, natural walks or a combination of these to provide a link between open-space areas, community facilities, the Colorado River and the residential neighborhoods of the community.

■ 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:

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.

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

Analytic Method

The reduction measures selected by Needles in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in environmental effects on existing recreation facilities or through construction of new facilities.

Effects Not Found to Be Significant

Threshold	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
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Demand for existing park and recreational facilities is based on population. The Regional Reduction Plan would not increase resident population in the City, therefore, implementation of the GHG reduction measures would not affect the demand for and use of existing recreational facilities such that significant adverse environmental effects would occur. 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?
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The Regional Reduction Plan does not include recreational facilities. Therefore, there would be *no impact*. It should be noted that Land Use Element Policy LU-26 supports the goals of the Regional Reduction Plan greenhouse gas reduction measures by encouraging public trail systems linking the community.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts on recreation facilities at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, *cumulative impacts would be less than significant*.

References

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4.12.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a), associated environmental document (1986b), the Southern California Association of Governments (SCAG) Regional Transportation Plan and SCS (2012), the SCAG Regional Comprehensive Plan (2009), the San Bernardino Associated Governments (SANBAG) Congestion Management Program (2012), the SANBAG Passenger Rail Short-Range Transit Plan (2007), and the San Bernardino County Non-Motorized Transportation Plan (2011). Full reference-list entries for all cited materials are provided at the end of this section.

One comment letter stating that the Regional Reduction Plan should include a comprehensive regional bicycle path master plan was received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

■ Environmental Setting

Existing Transportation Network

Roadway Network

The City of Needles has the following roadway hierarchy. This classification is intended as a general description only to understand the movement of people and vehicles.

- **Major Highways**—Major traffic route with controlled intersections and left turn bays
- **Secondary Highways**—Intermediate traffic carriers between majors and freeways
- **Collector Highways**—Local streets that funnel into collectors.
- **Local**—A part of routine design of new subdivisions

Transit

Bus Transit

Needles is served by Greyhound, Trailways, and Sun Valley Lines. The City is also served by a local bus line on a limited basis, which also serves the Mojave Valley region.

Rail

Needles is bisected by the Atchison-Topeka and Santa Fe Railroad (AT&SF). AT&SF provides transportation of goods and materials as well as of people.

Air

The Needles Airport provides full service to small, private aircraft. There are four 5,000-foot-long lighted runways, a flight service station, maintenance facilities, and 24-hour fuel operations.

■ Regulatory Framework

Federal

United States Department of Transportation

The United States Department of Transportation (USDOT) oversees federal highway, air, railroad, and maritime and other transportation administration functions.

The Federal Highway Administration (FHWA) is an agency within the USDOT that supports State and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program).

The Federal Transit Administration (FTA) is an agency within the USDOT that provides financial and technical assistance to local public transit systems. The FTA is headed by an Administrator who is appointed by the President of the United States and functions through a Washington, D.C. headquarters office and ten regional offices which assist local transit agencies throughout the United States.

The Federal Aviation Administration (FAA) is an agency within the USDOT that provides oversight and assistance to State and local airport authorities in the safety and improvements at airports throughout the United States. The FAA also provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate airport compatibility planning and implementation programs.

State

California Department of Transportation

The California Department of Transportation (Caltrans) manages the State Highway system and freeway lanes, provides 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

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; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

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 City, and five other counties within Southern California.

Regional Comprehensive Plan

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

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

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

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities

- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM₁₀, PM_{2.5}, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 RTP and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

SCAG Compass Growth Visioning

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

- **Mobility**—Getting where we want to go

- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

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

San Bernardino Associated Governments (SANBAG)

SANBAG is an association of local San Bernardino County governments. It is the MPO for the county, with policy makers consisting of mayors, council members, and county supervisors, and the funding agency for the county's transit systems, which include Omnitrans, Victor Valley Transit Authority, Morongo Basin Transit Authority, Mountain Area Regional Transit Authority, Barstow Area Transport, and Needles Area Transit. SANBAG administers the 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

Needles General Plan

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

Circulation and Transportation Element

- Policy 3** Sidewalks, activity trails and walking facilities should be extended throughout the City to allow for more convenient and safer pedestrian movement.
- Policy 4** Provide a bus system to better serve the population of Needles and the surrounding communities.
- Policy 5** Improve and upgrade existing street system to provide safe vehicular movements throughout the City and accommodate future developments

Land Use Element, Community Facilities

- Policy 26** Establish a public activity trail system throughout the community, containing bicycling, hiking, jogging, horseback riding, natural walks or a combination of these to provide a link between open-space areas, community facilities, the Colorado River and the residential neighborhoods of the community.

■ 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)

¹⁶ These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- 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?
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Implementation of Needles' reductions measures include solar energy efficiency retrofits for existing buildings, solar energy for new buildings, tree planting and preservation measures, and a greenhouse gas performance standard for new development. These measures would not generate new vehicle trips in the City. Construction of any new renewable energy infrastructure would require review by City Planning, Engineering, and/or Public Works Department staff for approval to ensure that the improvements do not interfere with planned transportation facilities. Energy-producing facilities would be required to incorporate appropriate setbacks to ensure there would be no impact to transportation routes as a result of implementation of the proposed project.

The Needles reduction measures do not include any local measures to provide the land use changes encouraged by the SCS. However, the City's General Plan includes policies that encourage infill development (Land Use Element Policies 1 and 16) and other policies, such as Transportation Element Policy 4, that could facilitate VMT reduction through greater transit opportunities and ridership. Other policies seek to enhance trail networks. The Regional Reduction Plan also implements and supports various regional transportation planning efforts in the City including the SCS in the SCAG RTP, the SCAG Compass Growth Visioning, and the San Bernardino County Non-Motorized Transportation Plan (SANBAG 2011). Additionally, all future work within streets and public places in the City would be required to comply with the City's Municipal Code.

Therefore, the Regional Reduction Plan implements and furthers the goals of the applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel. Further, because of City review to ensure that these improvements do not negatively impact the traffic flow on roadways, the implementation of the Regional Reduction Plan will not conflict with the level of

effectiveness for the performance of intersections, roadways, highways and freeways set by the City of Needles, the CMP and Caltrans. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
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The CMP defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The last update of the CMP was completed by SANBAG in 2012. Implementation of the Regional Reduction Plan may require transit or nonmotorized transportation infrastructure to be built on some CMP roadways. Transit and nonmotorized transportation infrastructure built on all roadways, including CMP-designated roadways; require review by City Public Works Department staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials.

Reduction measures associated with the proposed project would be reviewed by the City and would comply with applicable City standards. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
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The Regional Reduction Plan would not result in changes in air traffic patterns through an increase in traffic levels or a change in location. As such, no safety risks would occur. There would be *no impact*.

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
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Solar energy systems on existing buildings would not have any effect on roadway design or create incompatible uses. Appropriate setbacks would be required as specified in the Municipal Code to ensure there would be no increase in hazards to vehicles as a result of implementation of the proposed project. This impact would be *less than significant*. No mitigation is required.

Threshold	Would the project result in inadequate emergency access?
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The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as solar energy efficiency retrofits for existing buildings, tree planting measures, and a greenhouse gas performance standard for new development, which would not generate new vehicle trips in the City that would affect emergency vehicle use on City roadways. The proposed projects would be reviewed by the City to ensure compliance with the Municipal Code to ensure proposed improvements would result in inadequate emergency access. Therefore, the impact would be *less than significant*. No mitigation is required.

Threshold	Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?
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As described above, the Regional Reduction Plan reduces transportation-related GHG emissions by furthering the policies, plans and programs for public transit, bicycle and pedestrian facilities. In particular, the Regional Reduction Plan furthers the General Plan policies listed in the Transportation Element (Policy 3) and Land Use Element (Policy 26) intended to improve and integrate the bicycle and pedestrian circulation system as well as the goals of the San Bernardino County Non-Motorized Transportation Plan. In addition, the Regional Reduction Plan implements the SCS in the SCAG RTP, and the Needles General Plan policies, principles and standards intended to improve the public transit system in the City. Transit and nonmotorized transportation infrastructure built on all roadways require review by City Public Works Department staff review and approval to ensure that performance standards and safety are not impacted negatively. Therefore, the impact would be *less than significant*. No mitigation is required.

■ Cumulative Impacts

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

■ References

Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.

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4.12.17 Utilities/Service Systems

This section of the EIR analyzes the potential environmental effects on utilities/service systems (water supply, storage, and distribution; wastewater collection, transmission, and treatment; solid waste; and energy) in the City of Needles from implementation of the Regional Reduction Plan. Data for this section were taken from the Needles General Plan (1986a) and associated environmental document (1986b). 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

Water service is provided by the City of Needles to the residents within the City and a portion of unincorporated area along the Colorado River, which is surrounded by the City of Needles. A nearby area that is considered to be a part of the City of Needles is Park Moabi, which is located in the southeast corner of the service area. Park Moabi has their own well and serves a limited number of people (Needles 1986b).

Groundwater is the source of the Needles water supply. Approximately 781 million gallons per year is pumped from four wells. The wells are approximately 100 feet deep and are located in the lower part of the City. Water distribution system consists of 66 miles of lines varying in diameter from 2 to 16 inches. Pipelines are constructed of ductile iron, asbestos cement, steel, and plastic pipe (Needles 2013).

Water storage capacity for the Needles water supply is provided by two 1.5-million-gallon tanks for the lower pressure zone next to the Rodeo Grounds and one 1.5-million-gallon tank and one 100,000-gallon tank out Parkway Street for the upper pressure zone (Needles 2013).

Wastewater Collection and Treatment

The City's Wastewater Department is responsible for managing the City's sanitary sewer collection system. The field operation and maintenance services are fulfilled by City Staff. The collection system consists of 19.25 miles of sewer line, 3.6 miles of Force Main, four lift stations, 390 manholes, and one 1.2-million-gallons-per-day wastewater treatment plant (WWTP). The sewer system was first installed in 1950. Prior to that time, cesspools were used. In the older part of town, there is still evidence of cesspools and septic tanks that have been abandoned (Needles 2013).

The City has four lift stations: located on K Street, Bazoobuth and Quivera Street, River Road, and Jack Smith Park. Once reaching the WWTP, the effluent water is pumped to the City's Percolation Ponds located behind Bashas Center where the water percolates back into the ground (Needles 2013).

In Needles, the last of the sewer service on the south side goes as far as the Victory Drive and Cherry, and on the north side, it extends to Pashard Avenue. Needles still has several septic systems, mostly in North Needles along the River.

Solid Waste

The City of Needles through its franchised hauler, Allied Waste Transportation, Inc. ("Allied"), collects solid waste and universal waste within the city limits. Allied uses a Rapid Rail refuse pick-up system that allows for a much more efficient method of refuse collection than the conventional method. Use of a special vehicle and special containers allow collection to be performed by one operator. Solid and universal waste is transported to a landfill located in Ft. Mohave, AZ. On November 3, 2000, the United State government, with administration by the Bureau of Land Management (BLM), transferred the ownership of property that the Waste Management Facility (WMF) is located on, to the County of San Bernardino (RWQCB 2003). The site is a 180-acre parcel of land, and approximately 50 acres formerly used as WMF disposal areas. That landfill was officially closed in 2002, having been properly capped and vented by San Bernardino County.

Since the year 2000, the California Integrated Waste Management Board (CIWMB), now known as CalRecycle, has required all jurisdictions to divert at least 50 percent of their waste from going directly to landfills (Public Resources Code Section 41780). The City of Needles is in compliance with AB 939.

Electricity

The City of Needles purchased the Electric Company in 1991 from CP National. NPUA, which is Needles Public Utility Authority, is the agency that manages the Utilities for the City. This is managed with recommendation to the City Council by the Utility Board. The utility does not foresee any problems in providing electrical service for future growth and development in the Community. The system consists mainly of service on wooden poles, although some facilities are underground. Most new facilities are being installed underground within street rights-of-way.

Natural Gas

California Pacific Utilities Co. provides natural gas service to the City. Its ability to provide service far exceeds the current number of customers. The utility looks favorably on future development from the standpoint of bringing more gas customers into their sphere of service. The foreseeable future does not present any problems to California Pacific Utilities Co. affecting its ability to provide natural gas service to the City (Needles 1986b).

Telephone and Communications

Telephone service is provided by Frontier Communications. The City's continued growth will not inhibit Frontier Communications' ability to provide telephone service. Golden Valley Cable and Communication currently provides cable television service to the city. Golden Valley Cable has the ability to serve the current and foreseeable future needs of the City as growth continues.

■ Regulatory Framework

Utilities within the City of Needles tend to grow proportionally with the population. The following discussion of regulations helps to understand how public utilities are evaluated.

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 nonfederal hydropower projects.

Federal Communications Commission (FCC)

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite and cable in all fifty states, the District of Columbia and U.S. territories. It was established by the Communications Act of 1934 and operates as an independent U.S. government agency overseen by Congress. Primary responsibilities of the FCC include promoting competition in broadband communications while maintaining the quality and integrity of the signal reaching the public, and ensuring broad access to telecommunications by the public even in rural areas of the United States. The FCC has oversight over telecommunications and media regulations in the United States.

State

California Code of Regulations Title 22, Chapter 15 (Water Quality General Requirements)

California Code of Regulations (CCR) Title 22, Chapter 15, requires general water quality standards for water and wastewater discharge. The law ensures that pathogens and other contamination does not enter surface water or groundwater supplies within the state

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

California Health and Safety Code Article 1, Section 116270, was established a drinking water regulatory program within the Department of Health Services and provide drinking water standards for all water purveyors and distribution systems within the state. The law also requires regular sampling and record keeping of water supplies to ensure that potable water supplies are meeting the standards.

Senate Bills 610 and 210 Water Supply Assessment and Planning

To assist water suppliers, cities, and counties in integrated water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective

January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers and cities and counties.

Both statutes require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, water supply assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912(a)) subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

A WSA is required for any project if it is a residential development of 500 units or more; a shopping center or business establishment project employing more than 1,000 persons or having more than 500,000 square feet of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; or an industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. Individual development projects implemented would be required to prepare a WSA if they meet these requirements.

California Water Code Sections 10610–10656

In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 repeatedly identify the UWMP as a planning document that, if properly prepared, can be used by a water supplier to meet the standards set forth in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes. UWMPs serve as important source documents for cities and counties as they update their General Plan. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent. In 2010, Colorado River Board of California required the City of Needles to prepare an UWMP as a foundational document for compliance with both SB 610 and SB 221.

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.

Local

Needles General Plan

The Needles General Plan policies that are applicable to the development of infrastructure pertinent to utilities and service¹⁷ systems include:

¹⁷ These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Conservation and Historic Preservation Element

- Policy 1** Vigorously pursue the conservation and preservation of historical and natural resources.
- Policy 4** Manage existing land uses and future development to insure minimization of pollution of the City’s water supply or the Colorado River.
- Policy 5** Promote the use of water conservation in the community.
- Policy 6** Explore the feasibility of using treated waste water for landscaping of park, golf course and greenbelt areas.
- Policy 7** Insure the adequate supply and high quality of water in the community for future development.

Housing Element

- Policy 5.1** All new City buildings shall be constructed to meet or exceed the energy conservation standards in force at the time of their construction.
- Policy 5.2** The City shall strive to make all City-owned buildings as energy efficient as possible.
- Policy 5.3** The City will actively pursue all viable new sources of energy.
- Policy 5.4** The City will form a program to assist homeowners to identify areas in their home or practices that waste energy, and will attempt to offer incentives for rectifying such problems.
- Policy 5.5** The City will take every opportunity reasonably possible to educate the public about energy use within the City.
- Policy 5.6** The City will create an alternative energy ordinance and encourage other viable forms of alternative energy, and will seek grants to be able to offer incentives.

■ **Project Impact Evaluation**

Thresholds of Significance

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

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements

- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, or local statutes and regulations related to solid waste

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable utility infrastructure policies and capacity to determine if any inconsistency exists.

Effects Not Found to Be Significant

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
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The quality of wastewater is overseen by two agencies, the Colorado River Basin Regional Water Quality Control Board (RWQCB) and the California Department of Public Health (CDPH). The Colorado River Basin RWQCB has regional permitting authority over water quality issues and the CDPH oversees standards and health concerns. California Code of Regulations Title 22 provides the regulatory setting for drinking water quality in California and is followed by these agencies when they assess water quality.

Implementation of the Regional Reduction Plan includes adoption of a Green Building Ordinance and increasing the use of recycled water. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy-efficient equipment at the treatment facilities but does not increase capacity or the need for additional water treatment. A Green Building Ordinance would reduce the amount of wastewater going to the wastewater treatment facilities but would not change the treatment process at those facilities. Therefore, there would be *no impact*.

Threshold	Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
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As a result of the implementation of the Regional Reduction Plan measures such as the Green Building Ordinance, the City would conserve water by installing more energy-efficient fixtures, water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy efficient equipment at the treatment facilities but does not increase capacity or the need for additional water treatment. In fact, implementation of the Regional Reduction Plan is expected to reduce the need for water and wastewater treatment through the reduction of water demand. 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 City. The Proposed Project would facilitate energy efficiency, solar installation, and use of co-generation facilities in areas with existing development. The Proposed Project would not substantially change the drainage patterns on any site within the City. The impact would be *less than significant*. No mitigation is required.

Threshold Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements?

Implementation of the Regional Reduction Plan includes water conservation strategies through the implementation of a Green Building Ordinance and the increased use of recycled water. The net result of these measures is the reduction in water consumption. Therefore, the Regional Reduction Plan is expected to result in better management of existing water supplies within the City, which would be a benefit of the proposed project. Impacts on water supply would be *less than significant*. No mitigation is required.

Threshold Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Implementation of the Regional Reduction Plan includes water conservation strategies through the implementation of a Green Building Ordinance and the increased use of recycled water. These water conservation strategies would reduce the amount of wastewater going to wastewater treatment facilities. Additionally, as part of the Regional Reduction Plan implementation, the City would upgrade its wastewater equipment to more energy-efficient systems. 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 includes solid waste diversion that would reduce the amount of waste currently going to landfills. Therefore, impacts would be *less than significant*. No mitigation is required.

Threshold Would the project comply with federal, state, or local statutes and regulations related to solid waste?

Implementation of the Regional Reduction Plan includes solid waste diversion. Recycling of solid waste as part of the solid waste diversion would comply with all federal, state, and local statutes and regulations

related to the recycling of solid waste. Therefore, impacts would be *less than significant*. No mitigation is required.

■ Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to utilities and service systems at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, *cumulative impacts would be less than significant*.

■ References

- California Department of Water Resources (CDWR). 2003. *California's Groundwater Bulletin 118*. February.
- Needles, City of. 1986a. *Needles General Plan Policy Document*, February 18.
- . 1986b. *Environmental Assessment for the Needles General Plan*, January.
- . 2005. *Housing Element (Updated) of the City of Needles General Plan*, April 12.
- . 2012. City of Needles Website. www.cityofneedles.com (accessed May 28, 2012).
- San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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4.12.18 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 4.12-5 (Summary of Environmental Effects of Implementing Local Reduction Measures in Needles), 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 4.12.1 through 4.12.17 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 4.12.4 (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 4.12.5 (Cultural Resources) of this EIR) fully addresses impacts related to California history and prehistory, historic resources, archaeological resources, and paleontological resources.

■ Impacts on Human Beings

Consistent with CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology/soils, hazards/hazardous materials, hydrology/water quality, noise, population/housing, public services, transportation/traffic, and utilities/service systems, which are addressed in Sections 4.12.3, 4.12.6, 4.12.8, 4.12.9, 4.12.12, 4.12.13, 4.12.14, 4.12.16, and 4.12.17 of this EIR, respectively.

■ References

Kostka, Stephan L. and Michael H. Zischke. 2005. *Practice under the California Environmental Quality Act*.

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

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