5.12 Traffic and Transportation

This section addresses the potential effects of the Rice Solar Energy Project (RSEP) on traffic and transportation. Section 5.12.1 describes the affected environment of the local and regional traffic and transportation routes surrounding the project site. Section 5.12.2 presents the environmental analysis of the project's effects on local traffic volumes and patterns. Section 5.12.3 evaluates potential cumulative effects on traffic and transportation because of other, simultaneous projects. Section 5.12.4 describes mitigation measures for the project. Section 5.12.5 describes applicable laws, ordinances, regulations, and standards (LORS). Section 5.12.6 lists the applicable regulatory agencies and contacts, Section 5.12.7 discusses traffic and transportation permits required, and Section 5.12.8 lists the references used to prepare this section.

5.12.1 Affected Environment

The RSEP will be located in rural eastern Riverside County, California. The project site is along State Route (SR) 62 between Parker, Arizona, and Twentynine Palms, California. The project will be located on private land that was used during World War II as the site of the Rice Army Airfield, an airfield used to train infantry air support between 1942 and 1944, before being converted to a private airfield for a short time during the 1950s, and then abandoned. The project is located in a sparsely settled portion of the Sonoran Desert. The nearest residences are located in Vidal Junction, about 15 miles northeast of the site; and at the Metropolitan Water District's Iron Mountain Pumping Plant, about 17 miles to the west. The nearest town offering services is Parker, Arizona, approximately 32 miles east by road. Blythe, California is approximately 40 miles south by road. Twentynine Palms, California is 75 miles west.

5.12.1.1 Existing Regional and Local Transportation Facilities

The surrounding regional and local roadway networks are shown in Figures 5.12-1 and 5.12-2. There is no direct freeway access to the site; the nearest freeways are Interstate 40 (I-40), approximately 55 miles north of the site, and Interstate 10 (I-10), approximately 32 miles south of the site. Local access to the project site is provided by SR 62, which is immediately adjacent to and north of the site. SR 177 intersects SR 62 approximately 25 miles southwest of the site. US Route 95 (US 95) connects I-40 and I-10 in the north/south direction and intersects with SR 62 approximately 16 miles east of the RSEP site. Construction workers traveling to the site and RSEP operation employees would be likely to use the roadways described below. These roadways are in Riverside and San Bernardino counties (California) and in La Paz County, Arizona.

5.12.1.1.1 Interstate 10

I-10 is an east-west freeway extending from California to Florida. I-10 connects to SR 177 at Desert Center, 51 miles southwest of the site, and to US 95 at Blythe, 62 miles southeast of the RSEP site. Access from I-10 to the project site is via SR 62 or via SR 177 and then SR 62 from the west; and via US 95 and SR 62 from the east. Near the proposed project, I-10 has two lanes in each direction. According to traffic counts published by the California Department of Transportation (Caltrans) in 2008, the average daily traffic volume on I-10

near the junction with SR 177 is 23,000 vehicles per day (Caltrans, 2009). Trucks comprise approximately 40 percent of all traffic (Caltrans, 2008).

5.12.1.1.2 Interstate 40

I-40 is an east-west freeway extending from California to North Carolina. I-40 connects to US 95 at Needles, California, 56 miles northeast of the RSEP. Access from I-40 to the site is via US 95 and SR 62 from the east (64 miles by road). Near the RSEP, I-40 has two lanes in each direction. According to traffic counts published by Caltrans in 2008, the average daily traffic volume on I-40 near the junction with US 95 is 15,000 vehicles per day (Caltrans, 2009). Trucks comprise approximately 50 percent of all traffic (Caltrans, 2008).

5.12.1.1.3 State Route 62

SR 62 is an east-west roadway immediately adjacent to and north of the project site; it is also known as Twentynine Palms Highway or Aqueduct Road west of SR 177. SR 62 is an undivided two-lane highway in California, but widens to four lanes in downtown Parker, Arizona. According to traffic counts published in 2008, the average daily traffic volume on SR 62 near the junction with SR 177 is 2,200 vehicles per day (Caltrans, 2009). Trucks comprise approximately 7 to 21 percent of all traffic (Caltrans, 2008).

5.12.1.1.4 State Route 177

SR 177 is a north-south roadway west of the project site and is also known as Desert Center-Rice Road. It is an undivided two-lane highway. The average daily traffic volume on SR 177 near the junction with SR 62 is 1,300 vehicles per day (Caltrans, 2009). Trucks comprise approximately 20 percent of all traffic (Caltrans, 2008).

5.12.1.1.5 US Route 95

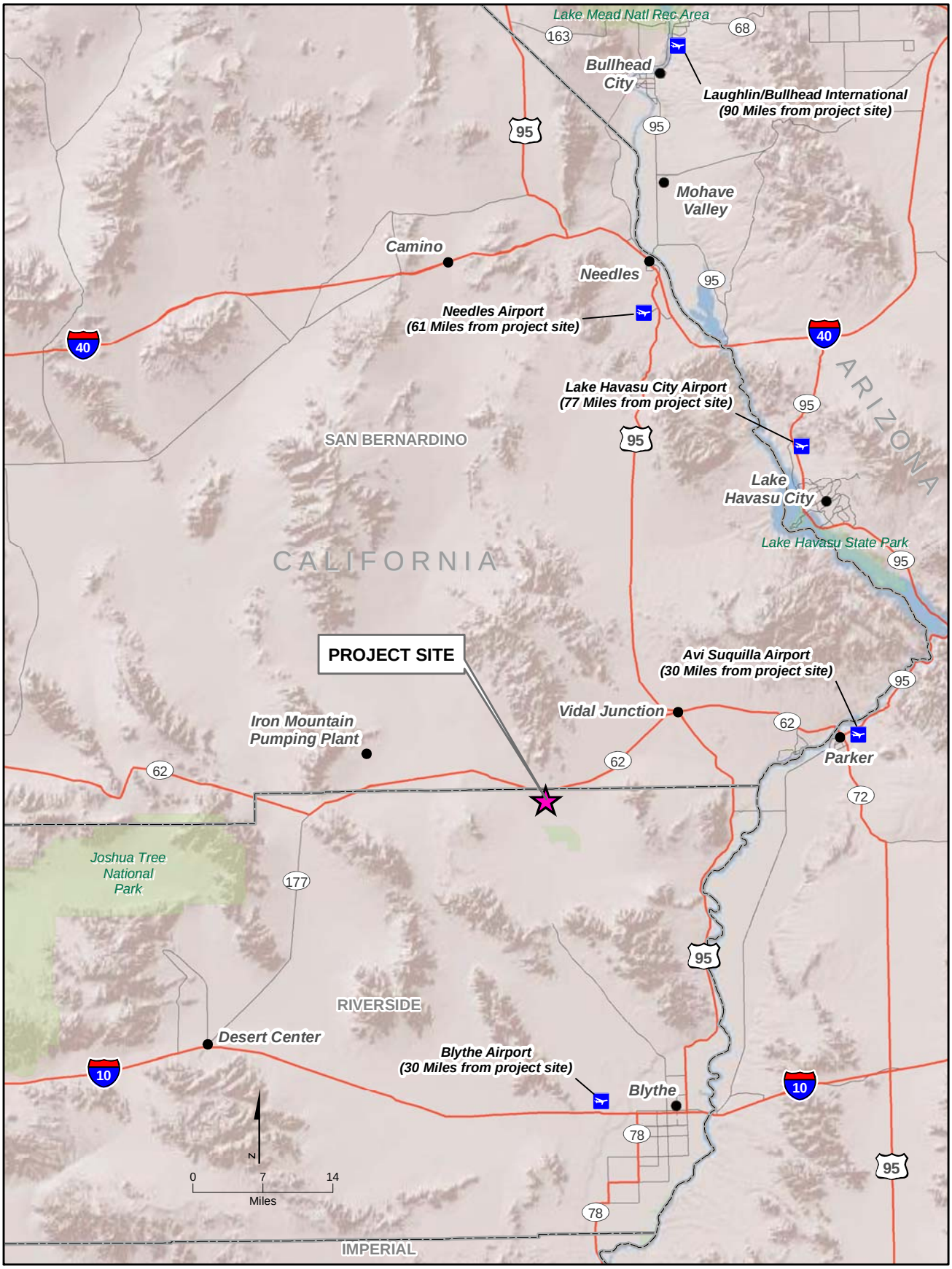
US 95 is an undivided two-lane rural highway that connects I-10 and I-40 to SR 62. The average daily traffic volume on US 95 near the junction with SR 62 is 3,000 vehicles per day (Caltrans, 2009). Trucks comprise approximately 12 percent of all traffic (Caltrans, 2008).

5.12.1.2 Existing Traffic Conditions and Level of Service Analysis

Traffic analysis was conducted according to the methodologies and procedures outlined in the Riverside and San Bernardino County General Plans, Congestion Management Plans, and applicable provisions from the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, §15000 et seq.), as well as various cities' municipal codes. Average Daily Traffic (ADT), k-factor, D-factor and truck percentages on state roadways were available from Caltrans (Caltrans, 2009) and the Arizona Department of Transportation (Arizona Department of Transportation, 2009). A Passenger Car Equivalent (PCE) factor of 1.5 was used to convert the mixed flow of cars and trucks into a uniform car equivalent. No morning or afternoon peak-hour turning movement counts were available; therefore, intersection levels of service (LOS) were not assessed.

5.12.1.2.1 Existing Roadway Conditions

With the exception of Desert Center-Rice Road/SR 177, all roadway segments in California belong to either Riverside County or San Bernardino County Congestion Management Program (CMP) routes.

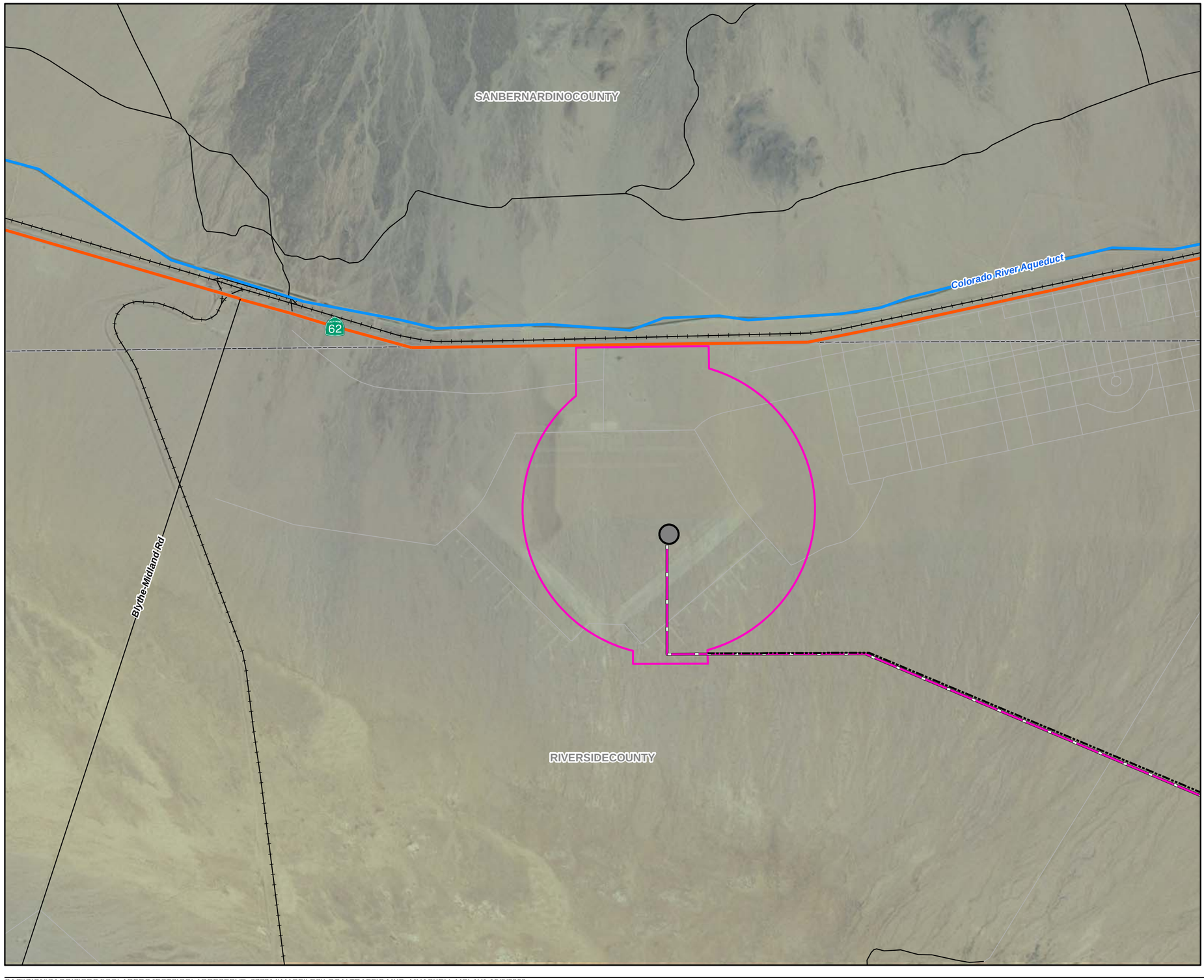


LEGEND

PROJECT SITE

COUNTY BOUNDARIES

FIGURE 5.12-1
REGIONAL TRANSPORTATION MAP
RICE SOLAR ENERGY PROJECT
RIVERSIDE COUNTY, CALIFORNIA



LEGEND

- TRANSMISSION LINE ACCESS ROAD
- GENERATOR TIE-LINE
- PROJECT FENCELINE BOUNDARY
- POWER BLOCK/RECEIVER
- COUNTY BOUNDARIES

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

N

0 1,500 3,000

Feet

FIGURE 5.12-2
LOCAL TRANSPORTATION MAP
RICE SOLAR ENERGY PROJECT
RIVERSIDE COUNTY, CALIFORNIA

CH2MHILL

In Riverside County, CMP roadways must achieve LOS E or better (Riverside County Transportation Commission, 2007). Conventional state highways not part of the CMP must achieve LOS C or better. The LOS criteria were provided in the County's General Plan circulation element (Riverside County Transportation and Land Management Agency, 2008).

In San Bernardino County, CMP roadways must achieve LOS E or better. The LOS criteria set by the Florida Department of Transportation "Generalized Peak Hour/Peak Direction Level of Service" tables are accepted for calculation of segment LOS (San Bernardino Associated Governments [SANBAG], 2007).

The portion of SR 62 in Arizona is in a rural area and, as such, must achieve LOS C or better (Lajeunesse, 2009). The LOS criteria used are as described in the Highway Capacity Manual (Transportation Research Board, 2000).

The LOS criteria used in this study are summarized in Table 5.12-1.

TABLE 5.12-1
Level of Service Criteria for Roadways

Riverside County[a]

Roadway Classification	Number of Lanes (Two-way)	Maximum Two-way Traffic Volume (ADT)		
		LOS C	LOS D	LOS E
Mountain	Two (One in each direction)	12,900	14,500	16,100

San Bernardino County[b]

Roadway Classification	Number of Lanes	Maximum v/c[c] (Demand Is Peak-hour Directional)					
		LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
Two-lane highway in rural undeveloped areas[d]	Two (One in each direction)	≤0.12	≤0.24	≤0.39	≤0.62	≤1.00	>1.00

La Paz County[e]

Roadway Classification	Number of Lanes	Maximum v/c (Demand Is Daily Bi-directional)					
		LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
Multilane highway	Four (Two in each direction)	≤0.29	≤0.47	≤0.68	≤0.88	≤1.00	>1.00

[a]Source: Riverside County General Plan Circulation Element Figure C-3
[b]Source: www.11.myflorida.com/planning/systems/sm/los/default.htm
[c]v/c = volume-to-capacity or demand-to-capacity ratio
[d]Or developed areas less than 5,000 in population
[e]Source: Highway Capacity Manual Exhibit 21-2

As discussed in Section 5.12.2.1.2, workers are expected to stay at nearby hotels throughout the construction phase and commute daily to the site using SR 62 and US 95. I-10, I-40, and SR 177 would not be used for regular commuting by construction workers, so additional traffic volumes would be low. Truck deliveries would use I-10, I-40, and SR 177, but also at low volumes during the peak hours (less than 1 percent of the peak-hour volume on the interstates and less than 5 percent of the peak-hour volume on SR 177). Therefore, a detailed traffic analysis was conducted only for SR 62 and US 95.

Table 5.12-2 is a summary of the daily and peak-hour traffic volumes and volume-to-capacity (v/c) ratios for existing conditions. All segments operate at an acceptable LOS.

5.12.1.3 Truck Routes—Weight and Load Limitations

In addition to the California Vehicle Code (CVC) Sections 35550-35559, the City of Blythe Municipal Code (City of Blythe, 2008) Chapter 10.04.220 Section 13A prohibits the operation of any of the following vehicles in the central traffic district, except on Hobson Way, between the hours of 7:00 a.m. and 6:00 p.m. of any day.

(a) Any freight vehicle more than 8.5 feet wide, with load, or any freight vehicle so loaded that any part of its load extends more than 20 feet to the front or rear of the vehicle.

(b) Any vehicle carrying building material that has not been loaded, or is not to be unloaded, at some point within the central traffic district.

The City of Twentynine Palms Municipal Code (City of Twentynine Palms, 2009a) Chapter 12.67 prevents the circulation of 10,000-pound (gross weight) commercial vehicles or more within the city except on the established truck routes. In addition to Twentynine Palms Highway throughout the city, which is not regulated by the city for purposes of traffic restriction, the following streets and portions of streets are designated and established as truck routes (Ord. 195 §1(part), 2005):

(a) Adobe Road between Sullivan Road and the Marine Corps Air-Ground Combat Center gate

(b) Amboy Road throughout the city

(c) Baseline Road from Wilshire Avenue to the easterly city limits

(d) Bullion Mountain Road from Twentynine Palms Highway to Valle Vista Road

(e) Indian Trail from the westerly city limits to Adobe Road

(f) Lear Avenue from Twentynine Palms Highway north to the city limits

(g) Mojave Road between Twentynine Palms Highway and Baseline

(h) Wilshire Avenue from Twentynine Palms Highway south to Baseline Road

(i) Utah Trail between Amboy Road and Valle Vista Road

(j) Valle Vista Road between Adobe Road and the easterly city limits

The Town of Parker Town Code (Town of Parker, 2007) Title 7 Motor Vehicles and Traffic does not discuss truck restrictions on public roadways.

TABLE 5.12-2
Existing Conditions on Roadway Segments

County	Roadway Segment	Between	And	Classification	Median	Number of Lanes	Peak-hour Capacity	Two-Way AADT (2008)	Calculated Peak AM Demand (One-way)	Calculated Peak PM Demand (One-way)	Truck Percentage	Adjusted Peak AM Demand (One-way)	Adjusted Peak PM Demand (One-way)	AM Peak V/C	AM Peak LOS	PM Peak V/C	PM Peak LOS	Threshold
Riverside County, California	US 95 NB[a]	Hobson Way	San Bernardino/Riverside County Line	Highway	Undivided	1	1,700	1,900	54	122	12%	2,014[b]	2,014[b]	—	LOS C or Better	—	LOS C or Better	LOS E
	US 95 SB[a]	Hobson Way	San Bernardino/Riverside County Line	Highway	Undivided	1	1,700	1,900	113	41	12%	2,014[b]	2,014[b]	—	LOS C or Better	—	LOS C or Better	LOS E
San Bernardino County, California	SR 62 EB	California/Arizona State Line	Junction with US 95	Highway	Undivided	1	1,700	9,700	615	403	21%	680	445	0.40	D	0.26	C	LOS E
	SR 62 WB	California/Arizona State Line	Junction with US 95	Highway	Undivided	1	1,700	9,700	328	570	21%	362	630	0.21	B	0.37	C	LOS E
	SR 62 EB[a]	Junction with US 95	San Bernardino/Riverside County Line	Highway	Undivided	1	1,700	1,600	44	48	7%	46	50	0.03	A	0.03	A	LOS E
	SR 62 WB[a]	Junction with US 95	San Bernardino/Riverside County Line	Highway	Undivided	1	1,700	1,600	252	260	7%	261	269	0.15	B	0.16	B	LOS E
	SR 62 EB[a]	San Bernardino/Riverside County Line	Utah Trail (Twentynine Palms)	Highway	Undivided	1	1,700	500	31	102	9%	32	106	0.02	A	0.06	A	LOS E
	SR 62 WB[a]	San Bernardino/Riverside County Line	Utah Trail (Twentynine Palms)	Highway	Undivided	1	1,700	500	124	36	9%	130	38	0.08	A	0.02	A	LOS E
	SR 62 EB[a]	Utah Trail (Twentynine Palms)	Adobe Road (Twentynine Palms)	Highway	Undivided	1	1,700	6,000	373	1220	9%	390	1275	0.23	B	0.75	E	LOS E
	SR 62 WB[a]	Utah Trail (Twentynine Palms)	Adobe Road (Twentynine Palms)	Highway	Undivided	1	1,700	6,000	1493	431	9%	1560	450	0.92	E	0.26	C	LOS E
La Paz County, Arizona	SR 62 EB	California/Arizona State Line	Junction with SR 95 (Parker)	Highway	Undivided	2	18,200[b]	8,210	542	361	20%	9,031[b]	9,031[b]	0.50[b]	C	0.50[b]	C	LOS C
	SR 62 WB	California/Arizona State Line	Junction with SR 95 (Parker)	Highway	Undivided	2	18,200[b]	8,210	361	542	20%	9,031[b]	9,031[b]	0.50[b]	C	0.50[b]	C	LOS C

[a]Route used for truck deliveries
[b]Daily volume shown AADT = annual average daily traffic

EB = eastbound
NB = northbound
SB = southbound
WB = westbound

5.12.1.4 Other Projects

5.12.1.4.1 Future Plans and Projects

No list of recommended improvements/future projects is provided in the General Plans for Riverside and San Bernardino counties. These documents set the goals and policies that will guide the development of the counties. The Riverside County General Plan also includes a Specific Plan for the Palo Verde Valley area.

5.12.1.4.2 Local Comprehensive Transportation Plans

In May 2008, the Southern California Association of Governments (SCAG) adopted the 2008 Regional Transportation Plan (RTP) (SCAG, 2008). The document provides a general description of transportation improvements. The RTP projects in the project area include:

- Construction of six new through lanes at the Portola Avenue/I-10 interchange in Palm Desert
- Construction of six new through lanes at the McNaughton Parkway/I-10 interchange in Coachella
- Realignment and rehabilitation of Needles Highway from N Street to Nevada State line near Needles

5.12.1.5 Pedestrian/Bicycle Facilities

The San Bernardino County Non-Motorized Transportation Plan 2001 Update addresses the plans and policies that guide the development of a comprehensive bicycle route plan. Currently, Twentynine Palms Highway is a priority class II Bike Lane or class III Bikeway within Twentynine Palms, and a proposed class II Bike Lane or class III Bikeway east of the city. A class II facility is a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. A class III facility is a generic term for any facility that is specifically designated for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. (SANBAG, 2001)

The Riverside County General Plan also discusses the development of the county's bikeways and regional trails. US 95 (within the county) is classified as a Regional Trail, which is designed to eventually provide linkages between areas that could be quite distant from each other, as well as connecting state and federal trails. The Bradshaw Trail is an historic trail that runs along part of I-10 in Blythe.

The La Paz County Comprehensive Plan (La Paz County, 2005) includes the goal to develop an integrated bicycle trail system in the Parker Strip area. US 60 and US 95, SR 95 between Parker and SR 72, and SR 72 are classified as "more suitable bicycle route" roadways. I-10 and SR 95 between the Bill Williams River Bridge and Parker are classified as "less suitable bicycle route" roadways.

5.12.1.6 Public Transportation

No public transportation is available to or from the RSEP site. Greyhound Bus Lines provide twice-daily stops at Needles and service to Blythe. The Needles Area Transit bus provides local bus service and dial-a-ride service. Local service in Blythe is offered by the Palo Verde

Valley Transit Agency; the Desert Roadrunner provides dial-a-ride services and one fixed route within the Palo Verde Valley (City of Needles, 2009; City of Blythe, 2009). The Morongo Basin Transit Authority serves the Twentynine Palms and Morongo Basin communities. The scheduled buses serve the City of Twentynine Palms and the Twentynine Palms Marine Base. From Twentynine Palms, the transit services provide a link to Joshua Tree, Yucca Valley, Landers, and Palm Springs/Palm Desert (City of Twentynine Palms, 2009b). La Paz County Transit offers local on-demand bus service in Parker, with a connection to Blythe (La Paz County, 2009). Quartzsite Transit Services provides priority service to town residents for medical, social, and recreational needs. Quartzsite Transit Services travels to Blythe, California, and Parker, Arizona, once a week and to Lake Havasu City once a month. The La Paz County Health Department provides free transit services to the entire county, excluding areas covered by the Town of Quartzsite's transit program (La Paz County, 2005).

5.12.1.7 Rail Traffic

The Arizona and California Railroad (ARZC) is a RailAmerica short line property. The 190-mile line starts in Cadiz, California, and continues southeast across the Mojave Desert to Ripley, then crosses the Colorado River Arizona/California state line at Parker, Arizona. The railroad continues east to Matthie. Additionally, there are 57 miles of trackage rights and a 50-mile branch line from Rice. The major commodities moved on the ARZC are petroleum gases, steel and lumber. (RailAmerica, 2009)

Four at-grade public railroad crossings are close to the RSEP site. One is located on SR 62 near Radio Tower Road, about 7.5 miles northeast of the project site. Another crossing is on US 95, near Old Parker Road, about 17.5 miles northeast of the project site. Both crossings are protected with automatic arms. Northwest of the RSEP site, two crossings with flashing beacons but no arms are located on SR 62, about 2.5 miles from the project site. These are on an abandoned spur of the ARZC, however.

Amtrak's Southwest Chief line has a stop in Needles. Two trains are provided daily from Needles to Los Angeles and Needles to Chicago. The Burlington Northern Santa Fe also has a hub in Needles. (City of Needles, 2009)

5.12.1.8 Air Traffic

Blythe Airport (Federal Aviation Administration [FAA] Identifier KBLH) has a 6,543-foot runway located about 161,000 feet (30.5 miles) southeast of the project site. In 2006, there were 69 operations per day.

Avi Suquilla Airport (FAA Identifier P20) has a 4,780-foot runway located about 164,000 feet (31 miles) northeast of the project site. In 2006-2007, there were 28 operations per day.

Needles Airport (FAA Identifier EED) has a 5,005-foot runway and a 4,235-foot runway located about 258,000 feet (49 miles) northeast of the project site. In 2005-2006, there were 29 operations per day (AirNav, 2009).

5.12.2 Environmental Analysis

This section discusses the traffic and transportation effects associated with the construction and operation of the project. Potential traffic effects during construction, as well as plant operation after construction, have been considered and analyzed.

Construction will start during the first quarter of 2011 and end during the third quarter of 2013. The commercial on-line date is expected to be October 1, 2013. Construction will require, at most, 450 workers. During operations, the project is expected to require about 47 staff members. To evaluate the "worst-case" scenario, traffic impacts associated with peak construction traffic were analyzed. A quantitative traffic analysis was not conducted for the long-term operations phase because it would generate a low volume of trips that would not have a measurable impact on the study area roadways.

5.12.2.1 Significance Criteria

The significance criteria have been developed using guidance provided in CEQA Appendix G (Title 14 California Code of Regulations 15000 et seq.) and relevant local policies. Effects of the proposed project on transportation and circulation would be considered significant if the following criteria are met:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system
- Exceed, either individually or cumulatively, a LOS standard 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 because of a design feature or incompatible uses
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies, plans, or programs supporting alternative transportation

The analysis of the "with project" traffic scenario was conducted for the peak month construction traffic.

5.12.2.1.1 Construction Traffic Generation

Estimates of the average and peak construction traffic during the onsite construction period were developed based on the size of the workforce. Because of the remote location, it is estimated that 30 percent of the workforce will carpool. During the peak month, the estimated number of construction staff daily one-way trips is 630 (2 x [450 x 0.7] = 630). The greatest number of truck trips expected during construction of the project in the peak construction month is approximately 90 daily one-way truck trips, and the average is about 50 daily one-way truck trips. It was assumed that only 10 deliveries would be made during each peak hour. Peak construction traffic was used to analyze the worst-case LOS scenario: the peak number of deliveries was added to the peak number of construction workers, even though the two events will not necessarily coincide. For purposes of this analysis, the truck

trips were converted to PCEs at a ratio of 1.5 passenger cars for each truck, consistent with the Highway Capacity Manual guidelines. No offsite traffic will be generated between the construction laydown area and the project site because the construction laydown area and the parking area will be located immediately adjacent to the project site. The construction trip estimates are presented in Table 5.12-3.

TABLE 5.12-3
Construction Trip Generation Estimate

		AM Peak Hour			PM Peak Hour		
Trip Type	**ADT**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Delivery/Haul Trucks	90	10	10	20	10	10	20
PCE (1.5)	135	15	15	30	15	15	30
Workers	630	315	-	315	-	315	315
Total Construction Traffic in PCE	765	330	15	345	15	330	345

5.12.2.1.2 Construction Traffic Distribution

Although the exact origin of the construction workers is unknown, it was assumed that due to the remote location of the project site, workers would choose to stay at a hotel or motel throughout the construction activity, and commute from those locations. The three closest cities with accommodation to rent are Blythe, Twentynine Palms, and Parker. RSE will make available a workforce RV/trailer park with a capacity of up to 300 trailers/RVs and will provide basic electric, water, and sanitary sewer services for the park. However, to analyze the most conservative case for construction worker traffic, the traffic analysis did not assume that any workers would use the park.

The following assumptions were used to distribute construction traffic over the study area network:

- 45 percent of trips will originate from Blythe via US 95 and SR 62
- 35 percent would come from Twentynine Palms via SR 62
- 20 percent would come from Parker via SR 62

It was assumed that 70 percent of construction deliveries to the site would use I-10 (60 percent eastbound and 10 percent westbound). Note that I-10 joins US 95 east of Blythe), and that 30 percent would use I-40 (20 percent eastbound and 10 percent westbound).

The RSEP will receive deliveries of materials from local, regional, and some international points of origin, including bulk commodity materials, engineered equipment and machinery, and general construction materials. The RSEP site is not served by rail and RSE is not planning an onsite rail spur. Without a direct rail spur, the project will rely on trucks for final delivery of materials, including materials brought in to the region by rail or ship.

Heavy and oversized loads will be transported via specially equipped trucks and trailers. These loads may include items such as the step-up transformer, the solar receiver panels, steam turbine-generator, tanks, and other heavy equipment. Oversized loads will be individually permitted.

Regional truck deliveries may be routed to the RSEP from I-10 and I-40, accessing the site via US 95, Desert Center Road, and SR 62. It may be possible to route some deliveries to the area via rail and off-load the deliveries onto drayage trucks at existing rail sidings close to the site. This option may reduce the quantity and frequency of long-haul truck trips and may reduce traffic impacts.

5.12.2.1.3 Roadway LOS with Construction Traffic

Average peak-hour traffic generated during the construction period was added to the existing traffic volumes on each roadway segment. The peak-hour traffic volumes for the study area roadway segments under existing conditions and with the addition of construction traffic are summarized in Table 5.12-4. Based on the analysis, the roadway segments are forecast to operate at an acceptable LOS. The addition of the project's construction traffic to the existing traffic volumes will not result in a significant impact.

5.12.2.2 Transport of Hazardous Materials

The salt-conditioning process may require a selective catalytic reduction (SCR) process to control oxides of nitrogen during the facility's commissioning period. The secondary alternative for controlling emissions during this commissioning process would be the use of aqueous ammonia in conjunction with the SCR. The preferred alternative is a four-stage chemical scrubbing process. If it were used, aqueous ammonia would be the only regulated hazardous substance that would be onsite in amounts above the California Accidental Release Program (CalARP) and federal threshold planning quantities. Two other regulated substances (hydrogen and sulfuric acid) will be delivered, but they will not be present in amounts above their threshold quantities. The ammonia would be used only in construction/plant commissioning to control emissions from the salt-conditioning process, not during operations. It would be delivered by a licensed contractor and kept in the tanker trucks (a maximum of two trucks onsite kept in secondary containment). Each truck would be a maximum of 7,500 gallons (total of 15,000 gallons maximum onsite). There would be 10 deliveries during the 140-day salt melting and conditioning period.

Hazardous materials would be transported as hazardous materials or hazardous waste. Transport route arrangements with Caltrans would be required for permitting and escort. Because the transport of hazardous wastes will be conducted in accordance with the relevant transportation regulations, no significant impact is expected. Section 5.5, Hazardous Materials Handling, details the types and quantities of hazardous materials that will be used at the site.

According to Division 13 Section 31303 of the CVC, regulated substances and hazardous materials are to be transported on the state or interstate highways that offer the shortest overall transit time possible. Transporters of hazardous or explosive materials must contact the California Highway Patrol (CHP) and apply for a Hazards Material Transportation License. Upon receiving this license, the shipper obtains a handbook specifying approved routes for shipping inhalation hazards or explosive materials. The exact route of the inhalation hazard or explosive material shipment will not be determined until the shipper contacts the CHP and applies for a license. Transportation impacts related to hazardous materials associated with the project operations will not be significant because deliveries of hazardous materials will be limited. Delivery of these materials will occur over prearranged

routes and will comply with all LORS governing the safe transportation of hazardous materials.

Standards for the transport of hazardous materials are contained in the Code of Federal Regulations (CFR), Title 49, Section 171. These laws and ordinances place requirements on various aspects of hazardous waste hauling, from materials handling to vehicle signs, to ensure public safety. They are enforced by the U.S. Department of Transportation.

Additionally, the State of California has promulgated rules for hazardous waste transport that can be found in the California Code of Regulations, Title 26. Additional regulations for the transportation of hazardous materials are outlined in the CVC (Sections 2500-505, 12804-804.5, 31300, 3400, and 34500-501). The two state agencies with primary responsibility for enforcing federal and state regulations governing the transportation of hazardous wastes are the CHP and Caltrans. Transport of hazardous materials to and from the project site will comply with all applicable requirements.

The recommended routes, subject to Caltrans approval, are as follows:

- I-10 or I-40
- US 95
- SR 177
- SR 62

The RSEP will comply with these requirements through the implementation of a Traffic Management Plan (TMP), discussed in Section 5.12.4, and by obtaining a Hazardous Material Transportation License. As a result, impacts will be less than significant. Additionally, the salt will be transported in accordance with applicable Department of Homeland Security regulations per the construction security plan described in Section 5.5, Hazardous Materials Handling.

5.12.2.3 Public Safety

Truck trips, including delivery of hazardous materials and removal of wastes, pose potential hazards for the public. However, the transporter will be required to obtain a Hazardous Material Transportation License in accordance with CVC Section 32105 and will be required to follow appropriate safety procedures when transporting and handling such materials. Therefore, public safety is not jeopardized.

Another potential safety hazard for the public is at-grade railroad crossings. As discussed in Section 5.12.1.7, four at-grade public crossings are close to the project site. Two are crossings with flashing beacons but no arms, and they are on SR 62 about 2.5 miles from the project site. These crossings are located along an abandoned spur, however. The TMP should emphasize the need for caution when workers and truckers cross the railroad tracks.

TABLE 5.12-4
Roadway Sections LOS Analysis with Project Construction Traffic

County	Roadway Segment	Between	And	Existing AM Peak V/C	Existing AM Peak LOS	Added Vehicles AM[b]	Construction AM Peak Demand[b]	Construction AM Peak V/C	Construction AM Peak LOS	Existing PM Peak V/C	Existing PM Peak LOS	Added Vehicles PM[b]	Construction PM peak demand[b]	Construction PM Peak V/C	Construction PM Peak LOS	Threshold
Riverside County, California	US 95 NB[a]	Hobson Way	San Bernardino / Riverside County Line	—	LOS C or Better	298[c]	2,312[c]	—	LOS C or better	—	LOS C or Better	298[c]	2,312[c]	—	LOS C or better	LOS E
	US 95 SB[a]	Hobson Way	San Bernardino / Riverside County Line	—	LOS C or Better	298[c]	2,312[c]	—	LOS C or better	—	LOS C or Better	298[c]	2,312[c]	—	LOS C or better	LOS E
San Bernardino County, California	SR 62 EB	California / Arizona State Line	Junction with US 95	0.40	D	63	743	0.44	D	0.26	C	0	445	0.26	C	LOS E
	SR 62 WB	California / Arizona State Line	Junction with US 95	0.21	B	0	362	0.21	B	0.37	C	63	693	0.41	D	LOS E
	SR 62 EB[a]	Junction with US 95	San Bernardino / Riverside Co. Line	0.03	A	211	257	0.15	B	0.03	A	6	56	0.03	A	LOS E
	SR 62 WB[a]	Junction with US 95	San Bernardino / Riverside County Line	0.15	B	6	267	0.16	B	0.16	B	211	480	0.28	C	LOS E
	SR 62 EB[a]	San Bernardino / Riverside County Line	Utah Trail (Twentynine Palms)	0.02	A	119	151	0.09	A	0.06	A	9	115	0.07	A	LOS E
	SR 62 WB[a]	San Bernardino / Riverside County Line	Utah Trail (Twentynine Palms)	0.08	A	9	139	0.08	A	0.02	A	119	157	0.09	A	LOS E
	SR 62 EB[a]	Utah Trail (Twentynine Palms)	Adobe Road (Twentynine Palms)	0.23	B	110	500	0.29	C	0.75	E	0	1275	0.75	E	LOS E
	SR 62 WB[a]	Utah Trail (Twentynine Palms)	Adobe Road (Twentynine Palms)	0.92	E	0	1560	0.92	E	0.26	C	110	560	0.33	C	LOS E
La Paz County, Arizona	SR 62 EB	California / Arizona State Line	Junction with SR 95 (Parker)	0.50[c]	C	126[c]	9,157[c]	0.50[c]	C	0.50[c]	C	126[c]	9,157[c]	0.50[c]	C	LOS C
	SR 62 WB	California / Arizona State Line	Junction with SR 95 (Parker)	0.50[c]	C	126[c]	9,157[c]	0.50[c]	C	0.50[c]	C	126[c]	9,157[c]	0.50[c]	C	LOS C

[a]Route used for truck deliveries
[b]In PCE
[c]Daily value shown

5.12.3 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Public Resources Code § 21083; California Code of Regulations, title 14, § 15064(h), 15065(c), 15130, and 15355). Cumulative traffic impacts may occur when more than one project has an overlapping construction schedule that generates excessive construction-related traffic.

There are no active projects that are planned or in a permitting process leading to construction of significant scale within 15 miles of the project site. Therefore, the project will not cause cumulative adverse impacts.

5.12.4 Mitigation Measures

The construction and operation of the RSEP will not cause any significant traffic impact. Therefore, no mitigation measures are necessary.

5.12.5 Laws, Ordinances, Regulations, and Standards

LORS related to traffic and transportation are summarized in the following subsections. Table 5.12-5 summarizes all applicable federal, state, and local LORS and administering agencies, and describes how RSE will comply with all LORS pertaining to traffic and transportation impacts.

5.12.5.1 Federal LORS

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.
- 14 CFR 77.13(1) requires an applicant to submit a Notice of Proposed Construction or Alteration (FAA Form No. 7460-1) to the FAA for construction of any structure taller than 200 feet. FAA Form 7460-1, Notice of Proposed Construction or Alteration has been prepared and provided to the FAA for review. An application has been filed with FAA for the tower, as required for structures exceeding 200 feet in height. Since the proposed tower exceeds 500 feet in height, the FAA also requires the application to be circulated for public comment (circularization). The public comment period for the application has closed and the project is awaiting a decision from FAA. A copy of the application is found in Appendix 3B.
- 14 CFR 77.13(2)(i) requires an applicant to notify the FAA of the construction of structures within 20,000 feet of the nearest point of the nearest runway of an airport with

at least one runway longer than 3,200 feet. The closest airport to the site is located more than 20,000 feet south of the RSEP site; therefore, this requirement is not applicable.

- 14 CFR 77.17 requires an applicant to submit a Notice of Proposed Construction or Alteration (FAA Form No. 7460-1) to the FAA for construction within 20,000 feet of the nearest runway of an airport with at least one runway longer than 3,200 feet. This requirement is not applicable.
- 14 CFR 77.21, 77.23, and 77.25 outlines the criteria used by the FAA to determine whether an obstruction would create an air navigation conflict. The RSEP is more than 3 nautical miles from the nearest airport. Because of the distance, these requirements are not applicable.

5.12.5.2 State LORS

- CVC Sections 13369, 15275, and 15278 address the licensing of drivers and classifications of licenses required to operate particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are addressed.
- CVC Sections 25160 et seq. address the safe transport of hazardous materials.
- CVC Sections 2500-2505 authorize the issuance of licenses by the Commissioner of the CHP to transport hazardous materials, including explosives.
- CVC Sections 31300 et seq. regulate the highway transportation of hazardous materials, routes used, and restrictions. CVC Section 31303 requires hazardous materials to be transported on state or interstate highways that offer the shortest overall transit time possible.
- CVC Sections 31600-31620 regulate the transportation of explosive materials.
- CVC Sections 32000-32053 regulate the licensing of carriers of hazardous materials and include noticing requirements.
- CVC Sections 32100-32109 establish special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. CVC Section 32105 requires shippers of inhalation hazards or explosive materials to contact the CHP and apply for a Hazardous Material Transportation License. Upon receiving this license, the shipper will obtain a handbook specifying approved routes.
- CVC Sections 34000-34121 establish special requirements for transporting flammable and combustible liquids over public roads and highways.
- CVC Sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5, and 34510-11 regulate the safe operation of vehicles, including those used to transport hazardous materials.
- California Street and Highways Code (S&HC), Sections 660, 670, 1450, 1460 et seq. 1470, and 1480, regulate right-of-way encroachment and granting of permits for encroachments on state and county roads.

TABLE 5.12-5
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/Applicability	Administering Agency	AFC Sections Explaining Conformance
49 CFR, Section 171-177 and 350-399	Requires proper handling and storage of hazardous materials during transportation.	U.S. Department of Transportation and Caltrans	Project and transportation will comply with all standards for the transportation of hazardous materials. (Sections 5.12.2.2 and 5.12.5.1)
14 CFR, Section 77.13(1), 77.13(2)(i), 77.17, 77.21, 77.23, and 77.25	Requires an applicant to notify the FAA of the construction or alterations of structures above 200 feet tall or within certain distance from an airport to avoid air navigation conflicts.	U.S. Department of Transportation and FAA	No airports are within 20,000 feet of the project site; therefore, this requirement is not applicable (Section 5.12.5.1). The solar receiver tower is taller than 200 feet and RSE has filed FAA Form 7460-1, Notice of Proposed Construction or Alteration with the FAA for review.
CVC §13369, 15275, and 15278	Addresses the licensing of drivers and classifications of licenses required for the operation of particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are required.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §25160 et seq.	Addresses the safe transport of hazardous materials.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §2500-2505	Authorizes the issuance of licenses by the Commissioner of the CHP for the transportation of hazardous materials including explosives.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §31300 et seq.	Requires transporters to meet proper storage and handling standards for transporting hazardous materials on public roads.	Caltrans	Transporters will comply with standards for transportation of hazardous materials on state highways during construction and operations. The project will conform to CVC §31303 by requiring that shippers of hazardous materials use the shortest route possible to and from the site. (Section 5.12.5.2)
CVC §31600 – 31620	Regulates the transportation of explosive materials.	Caltrans	The project will conform to CVC §31600 – 31620. (Section 5.12.5.2)
CVC §32000 – 32053	Regulates the licensing of carriers of hazardous materials and includes noticing requirements.	Caltrans	The project will conform to CVC §32000 – 32053. (Section 5.12.5.2)
CVC §32100 – 32109 and 32105	Establishes special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. Requires that shippers of inhalation or explosive materials contact the CHP and apply for a Hazardous Material Transportation License.	Caltrans	The project will conform by requiring shippers of inhalation or explosive materials to contact the CHP and obtain a Hazardous Materials Transportation License. (Sections 5.12.2.2 and 5.12.5.2)

TABLE 5.12-5
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/Applicability	Administering Agency	AFC Sections Explaining Conformance
CVC §34000 – 34121	Establishes special requirements for the transportation of flammable and combustible liquids over public roads and highways.	Caltrans	The project will conform to CVC §§34000 – 34121. (Section 5.12.2.2 and Section 5.12.5.2)
CVC §34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5 and 34510-11	Regulates the safe operation of vehicles, including those used to transport hazardous materials.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.2.2 and Section 5.12.5.2)
S&HC §660, 670, 1450, 1460 et seq., 1470, and 1480	Regulates right-of-way encroachment and the granting of permits for encroachments on state and county roads.	Caltrans	The project will conform to these sections in the S&HC. (Section 5.12.5.2)
S&HC §117, 660-711	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Caltrans	Encroachment permits will be obtained by transporters, as required. (Section 5.12.6)
CVC §35780; S&HC §660-711	Requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.	Caltrans	Transportation permits will be obtained by transporters for all overloads, as required. (Section 5.12.6)
CVC §35550-35559	Regulates weight and load limitations.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.6)
California State Planning Law, Government Code Section 65302	Project must conform to the General Plan.	Caltrans	Project will comply with the counties' General Plans. (Section 5.12.5.3)
Multimodal Transportation Element of La Paz County Comprehensive Plan	Specifies long-term planning goals to support Land Use goals.	La Paz County	The project will have no significant impact on the county's traffic and transportation infrastructure. (Section 5.12.5.3)
Transportation Elements of General Plans for Riverside and San Bernardino counties	Specifies long-term planning goals and procedures for transportation infrastructure system quality in the counties.	Riverside County San Bernardino County	The project will have no significant impact on the counties' traffic and transportation infrastructure. (Section 5.12.5.3)

CVC California Vehicle Code
CFR Code of Federal Regulations
S&HC California Streets and Highways Code

- S&HC Sections 117 and 660-711 and CVC Sections 35780 et seq., require permits to transport oversized loads on county roads. S&HC Sections 117 and 660 to 711 require permits for any construction, maintenance, or repair involving encroachment on state highway rights-of-way. CVC Section 35780 requires approval for a permit to transport oversized or excessive loads over state highways.
- Caltrans weight and load limitations for state highways apply to all state and local roadways. The weight and load limitations are specified in CVC Sections 35550 to 35559. The following provisions, from the CVC, apply to all roadways and are therefore applicable to this project.
- General Provisions:
  - The gross weight imposed upon the highway by the wheels on any axle of a vehicle shall not exceed 20,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle, and resting upon the roadway, shall not exceed 10,500 pounds.
  - The maximum wheel load is the lesser of the following: (a) the load limit established by the tire manufacturer, or (b) a load of 620 pounds per lateral inch of tire width, as determined by the manufacturer's rated tire width.
- Vehicles with Trailers or Semi-trailers:
  - The gross weight imposed upon the highway by the wheels on any one axle of a vehicle shall not exceed 18,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle and resting upon the roadway, shall not exceed 9,500 pounds, except that the gross weight imposed upon the highway by the wheels on any front steering axle of a motor vehicle shall not exceed 12,500 pounds.
- California State Planning Law, Government Code Section 65302, requires each city and county to adopt a General Plan, consisting of seven mandatory elements, to guide its physical development. Section 65302(b) requires that a circulation element be one of the mandatory elements.
- All construction in the public right-of-way will need to comply with the "Manual on Uniform Traffic Control Devices" (Caltrans, 2003; Federal Highway Administration, 2003).

5.12.5.3 Local LORS

This section reviews compliance with all relevant local LORS without regard to their applicability as a matter of law. These LORS include the following:

- Riverside County's Congestion Management Plan sets LOS E as the minimum acceptable LOS on CMP roadways.
- Riverside County General Plan sets LOS C as the minimum acceptable LOS on conventional state highways that are not part of the CMP.
- The SANBAG CMP contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the San Bernardino region.

- San Bernardino County's General Plan Circulation Element discusses and analyzes the movement of people and goods throughout and around the county. The General Plan sets forth eight goals that address regional traffic on freeways and major arterials promoting public transit and alternate modes of transportation.
- The San Bernardino County requires a permit to operate any oversize or overweight vehicle in the county. The project will comply with requirements by obtaining the permit from the county before operating any oversize or overweight vehicles in the county.

5.12.6 Agencies and Agency Contacts

Table 5.12-6 lists the agency contacts related to traffic and transportation.

TABLE 5.12-6
Agency Contacts for Traffic and Transportation

Issue	Agency	Contact
Air navigation hazards	FAA Western Pacific Region Hawthorne, California	Karen McDonald, AWP-520 FAA Western Pacific Region P.O. Box 92007 Los Angeles, CA 90009 (310) 725-6557 Karen.Mcdonald@faa.gov
Oversized load transportation on state facilities	Caltrans South Region Transportation Permits Office 655 West 2nd St. San Bernardino, CA 92404-1400	Moe Bhuyian (909) 383-4637 Moe.Bhuyian@dot.ca.gov
Oversized load transportation through San Bernardino County	County of San Bernardino 825 East Third Street, Room 108 San Bernardino, CA 92415-0835	S. Guzman (909) 387-8046 sguzman@dpw.sbcounty.gov
Oversized loads transportation through Riverside County	County of Riverside 38686 El Cerrito Road Palm Desert, CA 92211	(760) 863-8267 Fax: (760) 863-7040 dcastill@rctlma.org
Hazardous material transportation	California Highway Patrol Accounting Section (Hazardous Materials Licensing Program) P.O. Box 942902 Sacramento, CA 94298-2902	(916) 327-5039 Email form available at: http://www.chp.ca.gov/prog/email.cgi
Transportation safety	Federal Motor Carrier Safety Administration California Field Office 1325 J Street, Suite 1540 Sacramento, CA 95814	(916) 930-2760 Fax: (916) 930-2770 Email contact depends on the nature of the hazardous material hauled.

5.12.7 Permits and Permit Schedule

Table 5.12-7 lists the permits related to traffic and transportation and the permit schedule. The vehicles used to transport heavy equipment and construction materials will require transportation permits when they exceed the size, weight, width, or length thresholds set forth in Section 35780 of the CVC, Sections 117 and 660-711 of the California State Highway Code, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from Caltrans, Riverside County, and/or San Bernardino County.

Transport route arrangements would be required with Caltrans and CHP officials for permitting and escort, as applicable. Transportation of hazardous materials to and from the RSEP will be conducted in accordance with CVC Section 31303.

TABLE 5.12-7
Permits and Permit Schedule for Traffic and Transportation

Permit	Agency Contact	Schedule
Single/annual-trip transportation permit for oversized loads and oversized vehicles	Caltrans – South Region Transportation Permits Office Permit Officer on Duty (909) 383-4637	Obtain when necessary, 2-hour processing time (single trip) to 2 weeks (annual trip)
Hazardous materials transportation license	CHP Hazardous Material Licensing Program (916) 327-5039	Obtain when necessary, approximately 2-week processing time
San Bernardino County transportation permit	San Bernardino County Transportation Division	Between 1 hour and 2 weeks
Riverside County transportation permit	Riverside County Transportation Department	Same day

5.12.8 References

AirNav. 2009. FAA Information Regarding Local Airports. http://www.airnav.com. Accessed June 2009.

Arizona Department of Transportation. 2009. Traffic Log. http://mpd.azdot.gov/data/aadt.php. Accessed August 2009.

California Department of Transportation (Caltrans). 2008. 2007 Annual Average Daily Truck Traffic on the California State Highway System. http://traffic-counts.dot.ca.gov/truck2007final.pdf. Accessed June 2009.

California Department of Transportation (Caltrans). 2009. Traffic Volumes on the California State Highways. http://traffic-counts.dot.ca.gov/. Accessed June 2009.

Caltrans. 2003. Manual of Uniform Traffic Control Devices 2003 California Supplements. Web site: http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/supplement.htm. Accessed June 2009.

City of Blythe. 2008. Municipal Code. http://municipalcodes.lexisnexis.com/codes/blythe/. Accessed August 2009.

City of Blythe. 2009. Palo Verde Valley Transit Agency and Desert Roadrunner.

City of Needles. 2009. Transportation. http://www.cityofneedles.com/Transportation.asp. Accessed July 2009.

City of Twentynine Palms. 2009a. Municipal Code. http://www.ci.twentynine-palms.ca.us/Municipal_Code.56.0.html. Accessed August 2009.

City of Twentynine Palms. 2009b. Transportation. http://www.ci.twentynine-palms.ca.us/Transportation.99.0.html

Federal Highway Administration. 2003. Manual on Uniform Traffic Control Devices. http://mutcd.fhwa.dot.gov/. Accessed August 2009.

La Paz County. 2005. La Paz County Comprehensive Plan. May.

La Paz County. 2009. Public Transportation. http://www.co.la-paz.az.us/Main_Pages/Dept_Health/mainTransit.htm. Accessed August 2009.

Lajeunesse, Bob/Arizona Department of Transportation, Maintenance Division. 2009. Personal communication with CH2M HILL staff on August 7, 2009.

RailAmerica. 2009. Arizona and California Railroad (ARZC). http://www.railamerica.com/ShippingServices/RailServices/ARZC.aspx. Accessed July 2009.

Riverside County Transportation and Land Management Agency. 2008. General Plan. http://www.rctlma.org/genplan/general_plan_2008/general_plan_2008.aspx. Accessed July 2009.

Riverside County Transportation Commission. 2007. 2007 Riverside County Congestion Management Program.

San Bernardino Associated Governments (SANBAG). 2001. San Bernardino County Non-Motorized Transportation Plan 2001 Update.

San Bernardino Associated Governments (SANBAG). 2007. Congestion Management Program for San Bernardino County 2007 Update.

Southern California Association of Governments (SCAG). 2008. 2008 Regional Transportation Plan.

Town of Parker. 2007. Town Code. http://www.searchsystems.net/frame.php?id=0fb1760063d4d27259426b761079283d&delay=true&nid=565. Accessed August 2009.

Transportation Research Board. 2000. Highway Capacity Manual.