

Appendix I

Traffic Study

**TRAFFIC STUDY
FOR
Desert Sunlight Solar Farm**

Desert Center, California

Prepared for:

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I. Introduction

A. Purpose of the TIA and Study Objectives

This analysis was prepared to identify traffic impacts and, if needed, propose mitigation, of those impacts of the construction of the Desert Sunlight Solar Farm (Project) proposed by First Solar Development (First Solar). The Project includes a solar farm producing up to 550 MW of electrical power, approximately 12 miles of 230-kV transmission line and a 230 – 500 kV substation. The Project will provide renewable electrical power.

“The purpose of this Project is to create a clean, renewable source of electricity that helps meet California’s growing demand for power and helps fulfill national and State renewable energy and GHG goals. Solar energy provides a sustainable, renewable source of power that helps reduce fossil fuel dependence and GHG emissions.”ⁱ (GHG stands for “Green House Gas”)

“The Project will utilize First Solar’s proven thin film cadmium telluride (CdTe) PV technology, which is readily scalable to the Project’s size.”ⁱⁱ

This traffic study was completed with generally accepted procedures and reflects the opinions of Hernandez, Kroone & Associates (HKA). The methods used are based on the Highway Capacity Manual. The traffic study follows the outline in the Riverside County Transportation Department “Traffic Impact Analysis Preparation Guide”, dated April 2008.

Measure of Impacts - The existing condition and the future conditions without project traffic is the yardstick to determine the magnitude of the project and its traffic impacts. The operation of the traffic without the project is compared to the operation of the traffic with the project. The measure used to compare the operation of the intersections or roads is called Level of Service.

Level of Service (LOS) is a measure of the effectiveness of an intersection or road. It rates intersections by the length of delay or road segments by a volume to capacity ratio.

A LOS of A means that the intersection has little delay. A LOS of F means the intersection has delays of over a minute. The magnitude of change in the LOS when the project trips are added to the intersection indicates the magnitude of the project’s impact.

The LOS measure of effectiveness for a road is based on the ratio of the volume of traffic using the road segments to the capacity of the road segments. The traffic on a road operating at LOS A would move freely. The traffic on a road operating at LOS F would be traveling significantly less than the posted speed limit in stop / go congestions.

Appendix A has tables showing the ranges of delay for intersections and the volume to capacity (v/c) ratios for road segments for the various LOS categories.

In the County of Riverside, if the LOS decreases to below an LOS of C with the addition of the traffic generated by the proposed project (project traffic), it is

considered to have an impact and mitigation may be required. Intersections under joint jurisdiction with Caltrans may operate at an LOS of D.

Intersections or road segments are selected for analysis based on the project traffic distribution anticipated. The study intersections were analyzed for delay and level of service (LOS) using HCS on the unsignalized intersections. The HCS software uses the Highway Capacity Manual 2000 methodology (HCM) for solving for LOS and delay.

The HCM analysis procedures include mathematically applied adjustment factors as part of the process in calculating the final LOS rating of an intersection. One of these adjustment factors is called the peak hour factor (PHF). This helps factor in the differences between an hourly volume and the inherent discrepancies that may occur in forecasting. The PHF is defined by the *Highway Capacity Manual* as "...the ratio of total hourly volume to the peak rate of flow within the hour..." The traffic volume is divided by the PHF to adjust it to the maximum flow through the intersection.

HKA would like to acknowledge First Solar Inc. / AECOM who provided the majority of the attached figures.

B. Site location and study area (See Figure 1)

The Project will be located near Desert Center, California, in the eastern portion of Riverside County, near the Joshua Tree National Park. The nearest communities are Eagle Mountain, Lake Tamarisk, and Desert Center. The solar panels will be constructed and operated at the "solar farm", approximately 6 miles north of Interstate 10 (I-10) along Kaiser Road.

The State Route 177 / I-10 interchange is the nearest interchange. The interchange is approximately 50 miles east of Indio, California and 50 miles west of Blythe, California. The majority of the land in the area is owned by the Bureau of Land Management (BLM).

C. Development project identification - Riverside County Case Number and related case

Not Applicable

D. Development project description

1) Project size and description (See Figures 2 and 3)

There are several components to the Project. Each will be discussed separately. The traffic generated by the various components will be combined to approximate the total project traffic as appropriate when components are concurrent in activity.

SOLAR FARM - The size of the solar farm to produce 400 - 550 MWs approximately 3,000 - 4,200 acres. The SOLAR FARM will include 400 - 550 - 1MW PV Arrays, an on-site substation, 28,800 SF monitoring and maintenance facility (M&M facility), one or more meteorological stations, guard shack, and 900 SF Visitor's center.

The arrays, substation and meteorological stations will have little manpower requirements once they are constructed and connected. The M&M Facility will be manned during construction and to a lesser intensity during operation of the Project. The guard shack will be manned 24 hours a day during the construction and operation of the Solar Farm.

The Visitor's Center will be located just off Kaiser Road near the entrance to the Solar Farm. It will have exhibits and an observation deck. Since the Visitor's Center will be 6 miles from the I-10, it will not attract casual travelers looking for a break in the long drives between desert cities. It will most likely be used by school groups, researchers and people staying or visiting at Lake Tamarisk.

It is anticipated that 15 people will arrive and leave the site daily for operations, maintenance and guard duty. The majority of the staff will be at the site during daylight hours but occasionally testing or maintenance work will require night work.

At present there are three "footprints" or layouts proposed for the Solar Farm (See Figures 2 – 3. Alternative C is not shown as the location is the same as the other two). They are all located on the east side of Kaiser Road, approximately 6 miles north of I-10. Alternatives A and B are the same size, but Alternative C is smaller and produces less energy. The traffic impacts of the Solar Farm are not expected to change with the shape of the footprint. Additional changes to the shape which may be made during the environmental review or design stages are not expected to change the traffic impacts. Unless a significant change in the location, square footage or in the construction effort, there is no difference between the two in regards to traffic impacts.

Since there are no significant traffic differences between the two proposed solar farm footprints, the two concepts will be analyzed in a single traffic analysis.

TRANSMISSION LINE – This line is the 220 KW line running from the SOLAR FARM to the RED BLUFF SUBSTATION near the I-10. Since the location of the RED BLUFF SUBSTATION is not yet determined, there are several alternatives for the routing of this above ground transmission line. Four alternatives are proposed and shown on exhibits in Appendix A. In either case the line will primarily cross land administered by the BLM with some limited crossing of private property. The selection of the RED BLUFF SUBSTATION location will reduce the choices of the transmission line route.

The routes are approximately the same length. Approximately the same construction schedule, work crews, equipment, and methods will be used on any route. In addition the maintenance schedule, number of crews, equipment, and methods will be approximately the same.

The only difference between the TRANSMISSION LINE routing alternatives that will cause a difference between their traffic impacts is the route itself. While the TRANSMISSION LINE crews are likely to use Kaiser Road for the portion of work near the SOLAR FARM, they may use Eagle Mountain Road, SR-177 or

Chuckwalla Valley Road interchanges with I-10 to reach the RED BLUFF SUBSTATION site.

RED BLUFF SUBSTATION – Southern California Edison (SCE) plans to construct the Red Bluff Substation near the I-10. It will connect the TRANSMISSION LINE from the SOLAR FARM to the existing Devers-Palo Verde (DSPV) transmission line. Its components include:

- Red Bluff Substation: 500/220 kV substation on approximately 90 acres
- Transmission Lines: Approximately 2,000 feet of new transmission lines (two lines of approximately 1,000 feet each), to connect to the existing DSPV transmission line
- Generation Tie Line Connection: Connect the TRANSMISSION LINE to the Red Bluff Substation
- Modification of existing 220 kV structures
- Distribution Line for Substation Light and Power: Approximately 300 feet of 12 kV overhead distribution line and approximately 1,000 feet of underground distribution line (to provide substation light and power)
- Telecommunications Facilities: Install optical ground wire (OPGW) on the DSPV interconnection generation tie-line

There are two alternative locations currently being considered for the proposed RED BLUFF SUBSTATION. These two alternatives are described in detail in the SCE's "Red Bluff Substation Project Description April 15, 2010" and summarized below.

Substation Alternative A: (AKA Red Bluff Site 2 in the SCE project description) Substation Alternative A would be located in southeast corner of Section 28 and the northeast corner of Section 33, T5S, R16E, east of the SR-177 / I-10 interchange. Access would be SR-177 / I-10 interchange south to Aztec Avenue, then east on Aztec Avenue and a to-be-constructed access road to the substation. or 2) Chuckwalla Valley Road / I-10 interchange south to Corn Springs Road, then west on Corn Springs Road and a to-be-constructed access road to the substation.

Substation Alternative B: (AKA Red Bluff Site 1 in the SCE project description) Substation Alternative B would be located in the northeast corner of Section 31, T5S, R15E, south of the Eagle Mountain Road / I-10 interchange. Access would be south on Eagle Mountain Road and a to-be-constructed access road.

The size and layout of the components would be approximately the same for either site. The construction and maintenance schedules, equipment, and crews would be approximately the same for either location.

The only difference between the RED BLUFF SUBSTATION alternatives that will cause a difference between their traffic impacts is the route used to get to either site.

2) Existing land use and zoning

The Project will be located primarily on land within the BLM's charge. The land use is open space. The SOLAR FARM is only on BLM managed land. The TRANSMISSION LINE will have small segments that cross private. The Alternative B location for RED BLUFF SUBSTATION is on private land.

The Desert Center Area Land Use map from the County of Riverside General Plan is included in Appendix B. Included in the same appendix, are maps depicting the ownership, zoning and current land use of the properties where the Project components may be constructed. Table 1 summarizes the information for the privately owned lands. For the TRANSMISSION LINE, the information is presented in the order private property would be crossed if one follows the proposed path from north to south. The specific Zoning, Current Land Use and General Plan Land Use designations are listed only once even if the component crosses two properties with the same designation.

*Table 1 General Plan Designations and Zoningⁱⁱⁱ
Property not under the control of the Bureau of Land Management*

Component	Zoning	Current Land Use	General Plan Land Use
TRANSMISSION LINE			
Corridor A-1	N-A W-2-10 R-1-20	OS-RUR RR OS-R	Rural Desert Community Development Open Space- Recreation
Corridor A-2	A-1-20 W-2-10	AG OS-RUR	Rural Desert
Corridor B-1	N-A W-2-10	OS-RUR	Rural Desert
Corridor B-2	N-A W-2-10 R-1-20	OS-RUR RR OS-R	Rural Desert Community Development Open Space- Recreation
RED BLUFF SUBSTATION			
Alternative B	W-2-10	OS-RUR	Rural Desert

Abbreviations	N-A – Natural Assets W-2-10 – Controlled Development Zone R-1-20 – One-Family Dwelling per 20 Ac	AG - Agriculture OS-RUR – Open Space Rural OS-R Open Space Recreation	A-1-20 – Agricultural – Light RR – Rural Residential
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3) Proposed land use and zoning

No zoning changes are proposed by the Project's Plan of Development (POD). Renewable energy generation or transmission facilities are not expressly allowed nor prohibited under the zoning ordinances but permitting may be required by County of Riverside for the use of private property in this manner.

The SOLAR FARM component will require buildings, fencing and arrays on approximately 4,200 acres of BLM land. The TRANSMISSION LINE component will have little impact, other than visual, for other approved uses of the land.

The RED BLUFF SUBSTATION site will take about 90 acres. The Alternative A location will be on BLM land but the Alternative B location is on private property.

4) Site plan of proposed project (reduced) Figures 2 and 3

5) Proposed project opening year – 2014

6) Any proposed project phasing –

The construction work will be phased so that limited areas of soil will be disturbed at a time. A proposed construction schedule is included in Appendix C.

7) Indicate if project is within a City Sphere of Influence –

The project is not within the sphere of influence of any city.

II. Area Conditions

A. Identify Study Area and Intersections (Figure 4)

Access to the SOLAR FARM is provided by Kaiser Road, a major road with 118 feet of right of way. It is predominately a north-south paved road that ends at State Route 177 (SR-177) at the south and at Eagle Mountain Landfill at the north end. It is one lane in each direction. It is mostly traveled by local residents. During a two hour period on a typical weekday, HKA observed three vehicles on the road north of its intersection with SR-177.

SR-177 is predominantly a north-south road that provides access for Kaiser Road from the I-10. According to the Desert Center Area Plan by the County of Riverside, it is a Mountain Arterial with 110 feet of right of way.^{iv} It connects I-10 to SR 62, another east-west route in eastern Riverside County, approximately 30 miles north of Desert Center. SR-177 is one lane in each direction with centerline and edge of pavement markings.

The I-10 is an east-west interstate starting in Santa Monica, CA and ending in Florida. At this location it is two lanes in each direction.

There is an east-west road named Ragsdale Road between the I-10 and the SR-177 / Kaiser Road intersection that was not studied or counted. At the time the background counts were taken, the road appeared be a frontage road between the Eagle Mountain / I-10 interchange and the SR-177 / I-10 interchange. It dead ends east of the SR-177.

Intersections were selected based on project trips, proposed distribution and the anticipated use of the SR-177 interchange to reach the Project sites. The SCE “Red Bluff Substation Project Description April 15, 2010” describes the possible use of interchanges east and west of the SR-177 / I-10 interchange. The project trips using those interchanges will be significantly less than the number of project trips using the SR-1777 / I-10 interchange.

Intersections to be analyzed are:

- SR-177 / I-10 EB Ramp
- SR-177 / I-10 WB Ramp
- SR-177 / Kaiser Road

B. Existing traffic controls and intersection geometrics

SR-177 is the main road and is not stop controlled. The intersecting roads with SR-177 are stop controlled. The geometrics of the intersections are shown in Figure 5 and in Table 2.

Table 2: Existing Geometrics

Intersections	NB			SB			EB			WB		
	L	T	R	L	T	R	L	T	R	L	T	R
SR-177 / I-10 EB Ramp ¹	-	1	S	S	1	-	1	1	Y	-	-	-
SR-177 / I-10 WB Ramp	S	1	-	-	1	S	-	-		S	1	S
SR-177 / Kaiser Road	S	1	S	-	1	S	S	-	S	-	-	-

S – Turning Movement is shared with Adjacent Through movement.

Y – Turning movement must yield but is not stopped controlled. Has a separate lane.

C. Existing traffic volumes - AM and PM peak hour turning movements and roadway links) (Figure 6A - AM and Figure 6B - PM)

Turning movement counts and a 24 hour classification count were taken by Counts Unlimited (See Appendix A) on February 17, 2010. Only 108 vehicles used Kaiser Road north of Lake Tamarisk Resort during the 24 hour period counted.

Data on the volume of the I-10 in the project area was obtained from the Caltrans 2008 Annual Average Day Traffic Data (Appendix A). The peak hour volume on the I-10 near the SR-177 interchange is in the 2,800 to 3,000 vehicle range.

D. Existing delay and Level of Service (LOS) at study intersections/roadway links

Using the existing peak hour volumes and geometrics, the following LOS resulted at the study intersections. The detailed printouts are in Appendix D.

Table 3: LOS Summary for Existing Conditions and Traffic Volumes

Intersection	Control	AM Peak Period		PM Peak Period	
		Delay, sec	LOS	Delay, sec	LOS
SR-177 / I-10 EB	Stops EB Off Ramp	9.0	A	8.9	A
SR-177 / I-10 WB	WB Off Ramp Stops	8.6	A	8.7	A
SR-177 / Kaiser RD	SB Kaiser RD Stops	8.5	A	8.6	A

Since SR-177 is not controlled, traffic movements on SR-177 will maintain an LOS A. The movements of concern are those at the stop-controlled approach, as they must yield to the traffic on SR-177. Furthermore adequate gaps in the traffic stream or queues need to be available to left and right turning vehicles. The existing traffic volumes operate at an acceptable LOS in both the AM and PM Peak Periods.

E. Provide copy of General Plan Circulation Element in the project vicinity (Appendix A)

F. Indicate if Transit service is available in the area and along which routes (Appendix A)

There is no public transportation along SR-177. Greyhound Bus Service and perhaps other commercial bus lines travel east and west along I-10 without designated stations at SR-177.

III. Projected Future Traffic

A. Project Traffic and Project Phasing (each study year)

1. Ambient growth rate

The desert cities of the County of Riverside have experienced rapid growth in the recent boom period. Table 4 shows the growth of the two nearest cities based on numbers from the U.S Census Bureau website.

Table 4: Population Growth at I-10 Communities

City	Population			Growth Rate, %
	1990	2000	2009	
Blythe, CA	8,448	20,465	21,329	152
Indio, CA	36,850	49,116	82,230	123

The I-10 communities in the area have shown an approximately 135% growth rate over that 19 year span. However the unincorporated areas have not grown as rapidly. Table 5 shows rates of growth of about than 45% over the same period in the unincorporated areas.

Table 5: Population Growth in Unincorporated County of Riverside

	Population			
	1990	2000	2009	Growth Rate, %
Balance of County	385,384	420,721	558,214	45

Caltrans provides a history of annual average daily traffic counts at interchanges throughout the state. The difference between volume of traffic west of the interchange and the volume of traffic east of the interchange is the net traffic exiting and entering at the interchange. An increase in traffic indicates an increase in the population or employment activity near that location.

Comparing the net traffic at the I-10 ramps in the area between 1998 and 2008, there has been little increase in traffic at the ramps. During those 10 years, the growth in traffic at the SR-177 ramp was 14%, an average rate of about 1.5% per year in net change. This is probably a more accurate number for the anticipated growth in the area. For the purposes of this analysis, a 2% total growth in the background traffic during the construction period will be used.

Table 6: Caltrans Annual Average Daily Traffic Counts

Interchange with I-10	1998			2008			Growth Rate, %
	West	East	Net Change	West	East	Net Change	
Eagle Mountain/Cloud	15,200	15,200	0	23,000	23,000	0	
Eagle Mountain	15,200	15,100	100	23,000	23,000	0	-100
SR-177	15,100	13,700	1,400	23,000	21,400	1,600	14
Chuckwalla	13,700	13,700	0	21,400	21,400	0	
Ford Dry Lake	13,700	13,700	0	21,400	21,300	100	100

2. Project Trip generation

Project trips are the volume of traffic that will be added to the road system because of the development of the project. Since this land is currently undeveloped, all trips that will be generated by the project are considered to be project trips for the purposes of this study.

There are several ways to estimate the trips generated by a project. One way is to use data collected from a large number of similar projects. Such data has been compiled by the Institute of Transportation Engineers, "ITE Trip Generation Handbook." These data points have been plotted and best fit curves through these data points have been developed. However, the construction of a solar farm, substation, and transmission lines or the operation of these facilities is not identified in the ITE Trip Generation Handbook.

Therefore, an analysis of individual site activities including employment, deliveries of construction materials and equipment, the construction schedule, and future operational activities and resulting trips needs to be studied

individually to identify the trips generated at varying phases of project development.

Furthermore, these trips need to be identified as to those trips occurring during the hours of expected peak traffic on the road. Generally there are two times when the existing traffic volume is highest: between 0600-0900 and 1600-1800 on a normal week day. The impacts of the traffic are studied for the peak one hour period during each of those two periods. The discussion that follows will estimate the project trips of concern for both the AM and PM Peak Periods.

Opening Day Project Trips - The project trips for the operation and maintenance of the SOLAR FARM, TRANSMISSION LINE and RED BLUFF SUBSTATION will be low.

First Solar anticipates about 15 daily trips to and from the site for the various employees and an additional 7 deliveries per weekday. Table 7 shows an anticipated schedule of the trips to and from the site each day.^v Trips to the Visitor's Center will primarily be by school bus or car and are not expected to occur during the peak traffic periods.

Table 7: Operation and Maintenance Project Trips - SOLAR FARM

Buildings	Staff per shift	Shifts	ADT Trips (one-way)	AM Peak Period		PM Peak Period	
				IN	OUT	IN	OUT
M&M, etc.	10	0600 – 1800	20	-	-	-	-
	10	1800 – 0600	20		10	10	-
Visitor's Center	1	1000 – 1500	2	-	-	-	-
Guard Shack	2	0600 – 1800	4	-	-	-	-
	2	1800 – 0600	4	-	2	2	-
Deliveries		0800 – 1700	14	1	1	1	1
Total			64	1	13	13	1

TRANSMISSION LINE – Traffic for the operation and maintenance of TRANSMISSION LINE is sporadic. Inspections are generally yearly and maintenance will be on an “as-needed” basis. No peak hour project trips are included in the peak periods for the operation and maintenance since these trips can report at anytime. The operation and maintenance of the TRANSMISSION LINE, regardless of the route used, is not anticipated to impact the LOS of the intersections and roads in the area.

RED BLUFF SUBSTATION – The RED BLUFF SUBSTATION will be monitored remotely and may have 3-4 visits a month regardless of the location selected. No peak hour project trips are included in the peak periods for the operation and maintenance since these visits may occur at anytime. The operation and maintenance of the RED BLUFF SUBSTATION, regardless of the route used, is not anticipated to impact the LOS of the intersections and roads in the area.

*Table 8: Operation and Maintenance Project Trips
For the Project*

Project Component	ADT Trips (round trips)	AM Peak Period		PM Peak Period	
		IN	OUT	IN	OUT
SOLAR FARM	28	1	13	13	1
TRANSMISSION LINE	-	-	-	-	-
RED BLUFF SUBSTATION	-	-	-	-	-
Total O&M Project Trips	28	1	13	13	1

This results in total Opening Day project trips of 14 trips during the AM and PM Peak period. An increase of 14 trips during the peak hour will not impact the intersections or roadway. The existing intersections and roadways have sufficient capacity to absorb these 14 trips without a decrease in LOS or operation. There is no concern for impacts to the study roads or intersection and no need for mitigation due to the operation and maintenance project trips for the Project.

A future analysis (20 year scenario) with these 14 trips was not performed. The project trips are not anticipated to change since the activity which generated the trips is not likely to change. The future intersection volumes will increase based upon growth rates established earlier. However traffic forecasting for a 20 year scenario is not an exact science. The volumes forecast will have a variance of more than these 14 project trips. Therefore, a future LOS was not performed.

Additionally the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide does not require the analysis of intersections that receive less than 50 peak period project trips. The Project will not generate at least 50 peak period project trips during the operation and maintenance of its components after construction. The Project will generate at least 50 peak period project trips during the construction of its components. Construction traffic impacts will be analyzed.

Construction Traffic Project Trips- Frequently the impacts of the project trips during construction are ignored due to the limited duration and temporary nature of the impacts. However the construction period of this project is expected to take from December of 2010 through February of 2013 or a little over 2 years. The project trips identified for Opening Day and the 20 year future scenario were too small to be significant. Therefore, the project trips from the construction activities were selected for impact analysis.

The Supplemental POD released March 19, 2010 and the SCE "Red Bluff Substation Project Description April 15, 2010" provided a great deal of information regarding number of personnel, equipment, and process of the construction effort required. The current construction schedule for the SOLAR FARM and TRANSMISSION LINE is included in Appendix C.

Construction Worker Project Trips –

SOLAR FARM – The construction and management workers required for the construction of the SOLAR FARM are expected to peak at about 562 employees during months 6 and 7 of the proposed construction schedule, not including the security guards. Months 5 and 8 – 16 will have closer to 542 employees at the site.

TRANSMISSION LINE – The construction workers required for the construction of the TRANSMISSION LINE are anticipated to average 25 employees for the 20 month effort. They will peak at 60 for the 6th – 8th months of construction.

SOLAR FARM and TRANSMISSION LINE construction work shifts will be 0700 to 1530. The hours may be adjusted for particular construction efforts (concrete pours) or to avoid the worst of the summer heat.

First Solar plans to provide 25 buses with 20 seats each to transport crews from Palm Springs, Blythe and other population centers to the site. Even with the long distances to commute, it is anticipated that approximately 10% of the staff will drive vehicles with two or less persons per car or about 60 vehicles.

RED BLUFF SUBSTATION –

The SCE “Red Bluff Substation Project Description April 15, 2010” describes the work crews required for various components of the RED BLUFF SUBSTATION. No construction schedule was provided. The tasks and number of workers did not change between the two locations.

Since no construction schedule was provided, the peak number of crew for each component was assumed to overlap so that a conservative project trips estimate was developed.

It is not known at this time if the construction will be completed by SCE crews or the staff of a private contractor. SCE crews usually travel in crew cab trucks with a minimum of 3 to a pickup. Crews for private contractors generally arrive in separate vehicles, but given the long commute it was assumed that 80% of the employees will car pool to the site. With those assumptions, it will take more cars to provide the same number of workers if private contractors are used for the construction of the substation and its components. The number of vehicles estimated to carry the private contractor’s employees was used as the project trips during construction of the RED BLUFF SUBSTATION.

The project trips for the construction workers for all of the components of the Project were added in the following table. The calculations and assumptions leading to this table are given in more detail in Appendix C.

Table 9: Construction Workers Project Trips

Component	Daily Trips, PCEs	AM Peak Period		PM Peak Period	
		IN	OUT	IN	OUT
SOLAR FARM & TRANSMISSION LINE	204	88	2	-	10
RED BLUFF SUBSTATION	108	46	-	-	8
Visitors, etc.	10	-	-	-	-
Total	322	134	2	-	18

Construction Equipment Project Trips - The Supplemental POD released March 19, 2010 and the SCE "Red Bluff Substation Project Description April 15, 2010" provided a great deal of information regarding quantities and types of vehicles that will be used for the construction of the Project and the materials that will be hauled to the construction site. It is anticipated that approximately 10,400 loads will be brought to the site over the course of the construction effort. The majority of the equipment and materials will be brought to the site via oversized vehicles.

Since access to the site requires driving the oversized vehicles on state controlled roads (I-10, SR-177, etc), permits from Caltrans are required. Those permits require the oversized vehicles access the State's roads outside of the peak traffic periods.

The equipment will be brought to the site as needed and will not impact the public roads again until they depart. Most of this equipment will be brought to the site prior to the maximum level in construction employee traffic.

It is anticipated that an average of about 20 large vehicles will deliver equipment or material each day. Even though there may be several deliveries of materials a day for most of the construction period, most of these vehicles are not expected to move during the peak traffic periods. The only exception to this norm will be when concrete is being poured.

At this time, it is anticipated that concrete will be delivered to the project site from communities to the east in 10 cubic yard mixers. These vehicles have 3 axles on the road and move during all hours of the day.

Since concrete needs to be poured in cooler temperatures, the concrete trucks frequently move during the AM Peak Period. When the pouring sites are set up efficiently, up to 3 mixers can arrive, be unloaded and leave in an hour. For the purposes of this analysis, it is assumed that concrete is being poured in two sites at one time and that 6 mixers will arrive at the site and 5 mixers will leave the site in an hour's time during the AM Peak Period.

For the concrete to be unloaded effectively, the site needs to be set up and ready to go. This normally means that part of the construction crew has arrived

earlier to set up the site. To keep the analysis conservative, the construction worker traffic is not being reduced for the AM peak period.

Large trucks move through surface streets and intersections more slowly than cars and take more time to move through intersections. Since the analysis procedures are based on the number of passenger cars, the concrete mixer must be converted to an equivalent number of cars. The project truck trips were converted to passenger car equivalents (PCEs) by using a factor of 3. Using a PCE of 3 per concrete mixer, the number of project trips due to concrete mixers will be 18 PCEs arriving and 15 PCEs leaving the AM Peak Period.

Concrete will not be poured during all peak traffic periods during the construction. But since the deliveries of large loads that are not oversized could happen during the peak periods, the inclusion of almost a third of the daily deliveries during the AM Peak Period will result in a conservative estimate for the analysis.

Table 10: Construction Project Trips, PCEs

Component	Daily Trips, PCEs	AM Peak Period		PM Peak Period	
		IN	OUT	IN	OUT
SOLAR FARM & TRANSMISSION LINE	204	88	2	-	10
RED BLUFF SUBSTATION	108	46	-	-	8
Visitors, etc.	10	-	-	-	-
Personnel Subtotal	322	134	2	-	18
Deliveries, Concrete, Equipment	-	18	15	-	-
Total	-	152	17	-	18

3. Project Trip Distribution and Assignment (Figures 7 and 8)

Access to the site will be primarily from I-10 via SR-177 and Kaiser Road. The majority of the construction workers will be assigned to the SOLAR FARM off Kaiser Road.

If Alternative A is selected for the Red Bluff Substation location, access may be provided by the Chuckwalla Road / I-10 interchange. This would include the crews working on all components of the RED BLUFF SUBSTATION and the crews working on the TRANSMISSION LINE during the portion of its construction near the substation.

If Alternative B is selected for the Red Bluff Substation location, access will be the Eagle Mountain Road / I-10 interchange. This would include the crews working on all components of the RED BLUFF SUBSTATION and the crews working on the TRANSMISSION LINE during the portion of its construction near the substation.

Using either Chuckwalla Road / I-10 interchange or Eagle Mountain Road / I-10 interchange would reduce the project trips for the construction workers and

concrete trucks on SR-177. This would reduce the anticipated traffic impacts at the SR-177 / I-10 interchange. For the purposes of this analysis, it is assumed that all the project traffic will use the SR-177 / I-10 interchange.

Construction Workers Distribution – The construction workers will access the site via the SR-177 / I-10 interchange. Those working at the SOLAR FARM will turn north at the interchange. The crews on the TRANSMISSION LINE will turn either north or south depending on where the work is on its route. The crews working on or near the RED BLUFF SUBSTATION will turn south at the interchange.

Given the low population density in the area it was assumed that only about 3% of the workers would come from the local area. They were distributed as arriving from Eagle Mountain, a community north of the SOLAR FARM site.

Another 3% of the construction workers were distributed as arriving from the north using SR-177.

The remainder of the employees was distributed to arrive via I-10. The population centers, with available workers are primarily west of the SR-177 / I-10 interchange. Due to the difference in population densities, remaining construction worker traffic is divided approximately 70% - 30% west and east of the interchange.

Concrete Trucks – The project description has all concrete trucks arriving and leaving to the east from Blythe.

Figure 7 shows the inbound project trip distribution in terms of percentage. The outbound distribution of project trips would be the opposite of the inbound distribution. Figure 8 shows the project trips distribution in terms of PCEs.

4. Other factors affecting trip generation (identify any factors used to adjust trip generation, such as pass-by trips, internal trips, or modal choice.

The Project is a destination that does not lend itself to pass-by trips, internal trips, or modal choice.

5. Construction Project peak hour turning movement traffic

See Figures 7 and 8 discussed above.

6. Project completion or phase completion traffic volumes

See Section III. A. 2. The construction worker traffic exceeds any operation and maintenance traffic and is the only one that needs to be considered.

C. Cumulative Traffic (background)

1. Ambient Growth Rate

See section III.A.1.

2. Identify location of other approved or proposed development projects

Cumulative traffic impacts are a concern when new projects have been approved, are funded for construction, but are currently not opened. In the near future, these projects would generate additional traffic trips throughout the study area. At the time of the data collection for existing traffic volumes, these cumulative project trips cannot be collected and must be estimated.

The EIS for the Project has an extensive list of projects that may be built in the future. The tables and a figure from the EIS are in Appendix C. The list was reviewed for approved but not built projects that would add project trips to the study intersections.

The following projects might add trips to the study intersections:

Table 11: Possible Cumulative Projects

Name	Location	Status
Eagle Mountain Pumped Water Storage	North of Desert Center	Application submitted
Chuckwalla Solar I	North of Desert Center	Plan of Development submitted to BLM
Desert Lily Soleil	North of Desert Center	-
Eagle Mountain Landfill Project	North of Desert Center	Project Alternatives under reconsideration.
Chuckwalla Racetrack	North of Desert Center, on SR-177	Approved

The first four projects are not approved and their anticipated project trips are not considered to be cumulative trips for the analysis for the First Solar’s Project.

The other project in the area is the Chuckwalla Racetrack, the proposed conversion of a closed airstrip to a membership racetrack and storage venue. The access to the Chuckwalla Racetrack will be from I-10 or State Route 62 via SR-177.

The County of Riverside did not require a traffic study for the Chuckwalla so the number of vehicles added during the peak hours of a typical weekday is assumed to be insignificant. It is probable that the majority of the trips are expected to be on the weekends. The trips generated by the Chuckwalla Racetrack are not considered to be cumulative for the analysis for the First Solar’s Project.

3. Trip generation from other approved projects - Not Applicable.

4. Trip distribution and assignment of other approved development projects - Not Applicable.

5. Total background peak hour turning movement volumes (Figures 9A and 9B)

The background traffic counted at the site was increased by 2% to project the background traffic expected during the construction period. The volumes shown on Figures 6A and 6B were multiplied by 1.02.

IV. Traffic Analysis

A. Capacity, Level of Service and Improvement Analysis - Intersections

1) Delay and LOS for Existing Conditions

See Section II. D. LOS printouts are in Appendix D.

Table 12: LOS Summary for Existing Conditions and Traffic Volumes

Intersection	Control	AM Peak Period		PM Peak Period	
		Delay, sec	LOS	Delay, sec	LOS
SR-177 / I-10 EB	EB Off Ramp Stops	9.0	A	8.9	A
SR-177 / I-10 WB	WB Off Ramp Stops	8.6	A	8.7	A
SR-177 / Kaiser RD	SB Kaiser RD Stops	8.5	A	8.6	A

2) Delay and LOS for Project Conditions

For this project, the only activity which generates a traffic concern is the construction work. Normally construction impacts are not of concern as they are of short duration and temporary. Typically, the project trips are added to the opening day and future year scenario background traffic and it is the combination of those two volumes which generate a traffic impact. However, in this situation the existing ADT of the streets is in the 100 ADT range and with the project trips added for the Project after Opening Day just doesn't generate an impact for evaluation.

In this situation the construction period will continue for more than 2 years and the number of vehicles used during construction will be substantially more than the anticipated volumes of traffic during the operation and maintenance of the Project. So the construction traffic impacts are analyzed. More detail LOS analysis printouts can be found in Appendix D.

Table 13: LOS Summary for Construction Period

Intersection	Control	Without Project		With Project	
		Delay, sec	LOS	Delay, sec	LOS
AM Peak Period					
SR-177 / I-10 EB	EB Off Ramp Stops	9.0	A	9.6	A

Intersection	Control	Without Project		With Project	
SR-177 / I-10 WB	WB Off Ramp Stops	8.6	A	9.3	A
SR-177 / Kaiser RD	SB Kaiser RD Stops	8.5	A	8.6	A
PM Peak Period		Delay, sec	LOS	Delay, sec	LOS
SR-177 / I-10 EB	EB Off Ramp Stops	8.9	A	9.0	A
SR-177 / I-10 WB	WB Off Ramp Stops	8.7	A	8.8	A
SR-177 / Kaiser RD	SB Kaiser RD Stops	8.6	A	8.7	A

As summarize in Table 13, the impact of the construction traffic to the background traffic expected during the construction period is to increase the delay at all intersections by less than one second. The LOS does not deteriorate a level at any intersection. The construction traffic for this Project has no significant traffic impact at the intersections.

V. Findings and Recommendations

A. Traffic Impacts and Level of Service Analysis

This analysis was prepared to identify traffic impacts and, if needed, propose mitigation, of those impacts of the construction of the Desert Sunlight Solar Farm (Project) proposed by First Solar Development (First Solar). The Project includes a solar farm producing up to 550 MW of electrical power, approximately 12 miles of 230-kV transmission line and a 230 – 500 kV substation. The Project will provide renewable electrical power.

This traffic study was completed with generally accepted procedures and reflects the opinions of Hernandez, Kroone & Associates (HKA). The methods used are based on the Highway Capacity Manual. The traffic study follows the outline in the Riverside County Transportation Department “Traffic Impact Analysis Preparation Guide”, dated April 2008.

The project trips were generated and distributed. The Project will generate less than 15 trips per peak traffic period after construction is completed. As analysis is not required at intersections with less than 50 peak hour trips, an Opening Day and Future Year (20 year scenario) was not completed.

However due to the length of the construction period, the construction traffic impacts were evaluated. Based on the construction trips and the distribution of those trips the following intersections were selected for analysis:

- SR-177 / I-10 EB Ramp
- SR-177 / 1-10 WB Ramp
- SR-177 / Kaiser Road

As noted before, the future conditions without project traffic is the yardstick to determine the magnitude of the project and its traffic impacts. The operation of the traffic without the project is compared to the operation of the traffic with the project to identify the traffic impacts. The measure of the operation of the traffic is called the Level of Service (LOS).

The study intersections were analyzed for the AM and PM peak traffic periods for the **without** project condition and the **with** project condition during the construction period. Counts were taken at these intersections, those volumes were increased by 2% to account for the increase in background traffic over the next two years to model the without project condition. The project trips were added to model the **with** project condition.

The Highway Capacity Software was used to calculate the LOS. Table 12 is a summary of the current operation of the intersections. All intersections currently operate at a LOS of A. Table 13 summarizes the operation of the intersections during the construction time period. All intersections continue to operate at a LOS of A for the next few years. The anticipated construction traffic does not degrade the LOS. The Project has no traffic impacts at the study intersections and no mitigation is required.

The construction traffic will add a large number of vehicles to the local roads. Being a “good neighbor” during construction might include the following efforts:

- Sweeping the paved roads periodically to cut down on dust picked up by the construction vehicles
- Documenting the current state of the roads (video and pavement corings) to be used during construction and returning the roads to the current level after construction.

B. Traffic Signal Warrant Analysis

No traffic signal warrant analysis is needed.

C. Circulation requirements

No on-site or area wide circulation improvements are needed.

Figure 1 – Vicinity Map

Figure 2 – Site Plan for Solar Farm Alternative A

Figure 3 – Site Plan for Solar Farm Alternative B

Figure 4 – Photos

Figure 5 – Existing Lane Configurations

Figure 6A – Existing Traffic – AM

Figure 6B – Existing Traffic - PM

Figure 7 - Project Trip Distribution, %

Figure 8 - Project Trip Distribution, PCEs

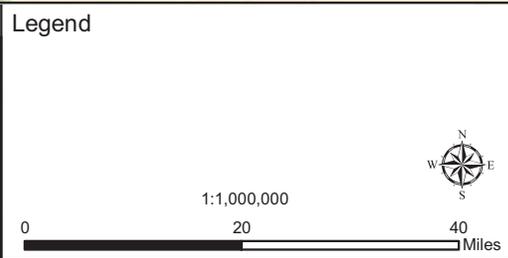
Figure 9A – Background Traffic Adjusted for Construction Period – AM

Figure 9B – Background Traffic Adjusted for Construction Period - PM

-
- ⁱ First Solar Inc., “Plan of Development - Desert Sunlight Solar Farm”, December 29, 2009, page 7.
- ⁱⁱ First Solar Inc., “Plan of Development - Desert Sunlight Solar Farm”, December 29, 2009, page 4.
- ⁱⁱⁱ Tetra Tech Mapping of information in First Solar Inc., “Plan of Development - Desert Sunlight Solar Farm”, December 29, 2009, and First Solar, Inc., “Supplemental Plan of Development - Desert Sunlight Solar Farm”, March 19, 2010.
- ^{iv} Riverside County Integrated Project, Desert Center Area Plan Circulation, Figure 6.
- ^v First Solar Inc, “Supplemental Plan of Development - Desert Sunlight Solar Farm”, March 19, 2010, page 51

Appendices:

- A. Background Information
- B. Land Use
- C. Project Trip Generation
- D. LOS Analysis



**Desert Sunlight
Solar Farm Project**

**Figure 1
Project Vicinity Map**

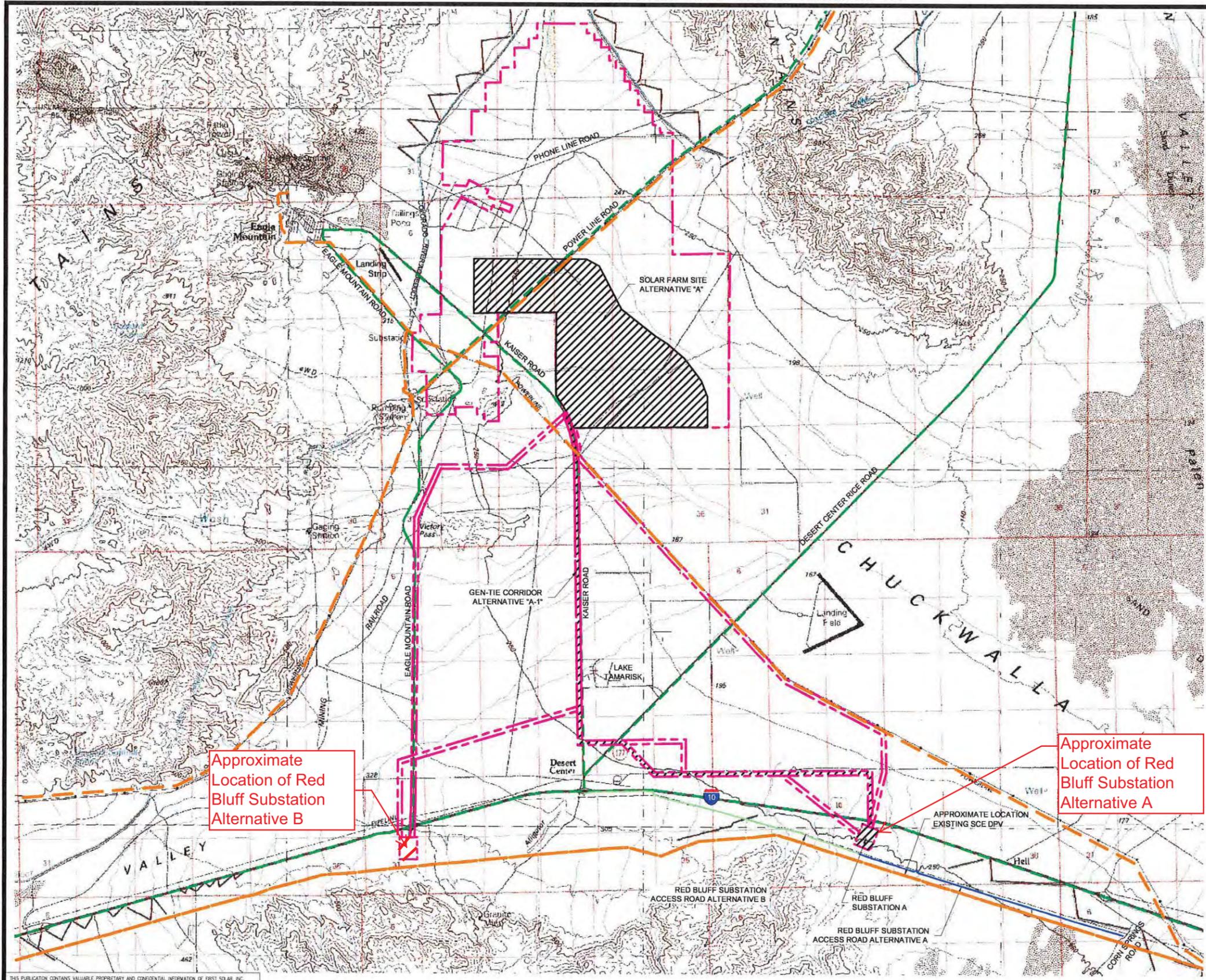
First Solar.

AECOM

Project: 60139386.004
Date: March 2010

J:\GIS\Projects\12414-First_Solar\011-Desert Sunlight\mxd\Feb10End\Figure 1_Project Vicinity Map.mxd

PROJECT STUDY AREA - GEN-TIE CORRIDOR "A-1"



LEGEND

- PROJECT STUDY AREA BOUNDARY *
- EXISTING ROAD
- EXISTING TRANSMISSION LINE
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,494 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.

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1111 BROADWAY ST., 4TH FLOOR
OAKLAND, CALIFORNIA 94607
PHONE: (510) 625-7400
WWW.FIRSTSOLAR.COM

DESERT SUNLIGHT
SOLAR FARM (ALTERNATIVE "A")
RIVERSIDE COUNTY
CALIFORNIA
550 MW-ac

REV. DATE	REVISION DESCRIPTION	BY	CHK APP
A	02/12/10		ISSUED FOR EIS SUBMITTAL

FS JOB No: 6015-0100-23
DRAWN BY: LP DESIGN BY:
PROJ. ENG: JP PROJ. MGR: MM
CHECKED BY: RH PROJ. DIR: JT
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SHEET TITLE
PROJECT STUDY AREA GEN-TIE CORRIDOR

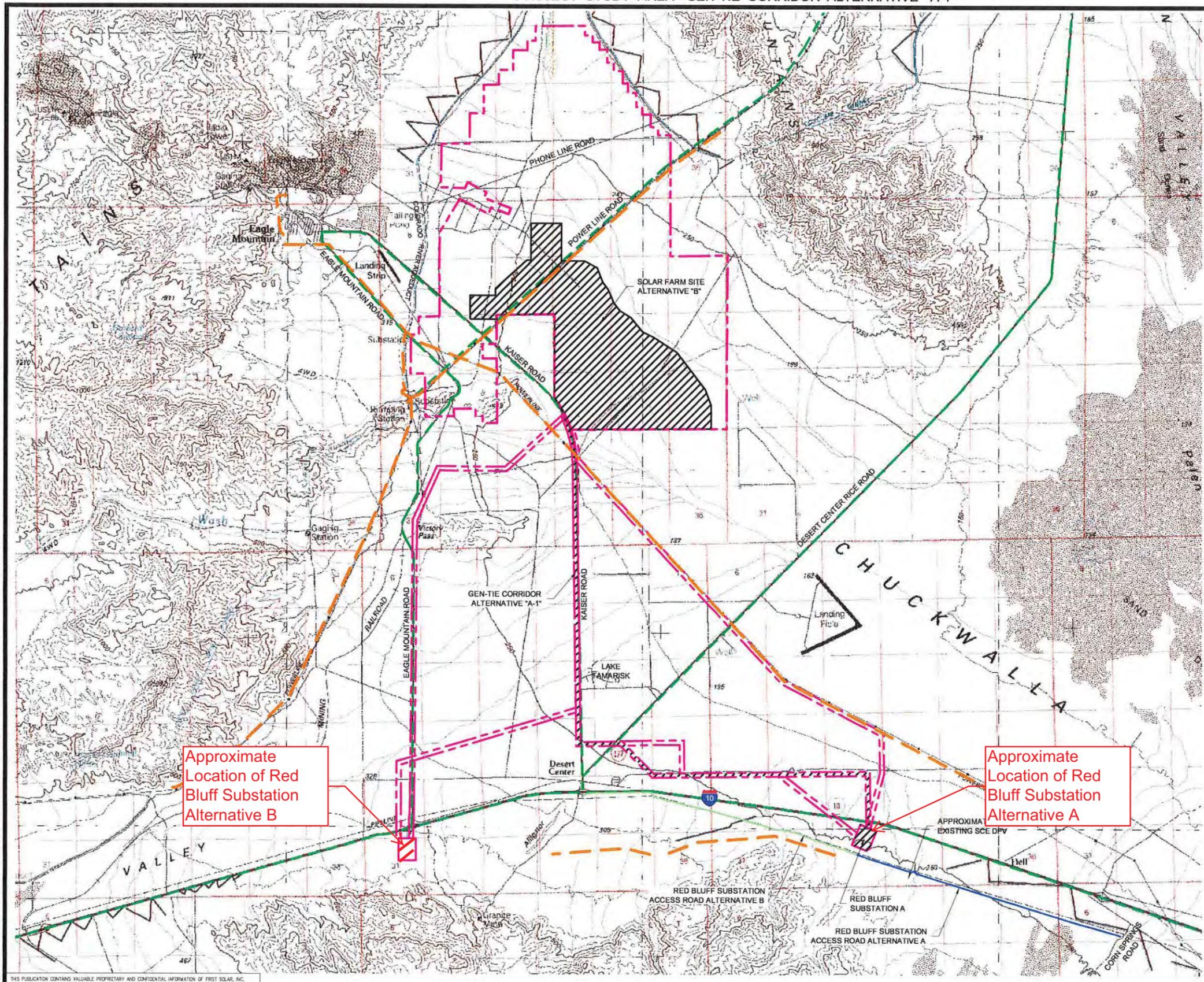
Figure 2 Solar Farm Alternative A Base Map by First Solar / AECOM

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PROJECT STUDY AREA - GEN-TIE CORRIDOR ALTERNATIVE "A-1"



LEGEND

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- EXISTING ROAD
- EXISTING TRANSMISSION LINE
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,553 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.

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SOLAR FARM (ALTERNATIVE "B")
RIVERSIDE COUNTY
CALIFORNIA
550 MW-ac

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A	01/12/10	

FS JOB No: 6015-0100-23	DESIGN BY:
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PROJECT
STUDY AREA -
GEN-TIE CORRIDOR

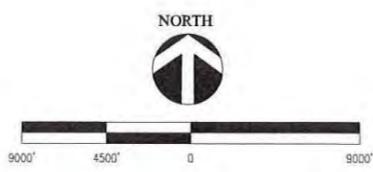


Figure 3 Solar Farm Alternative B Base Map by First Solar / AECOM

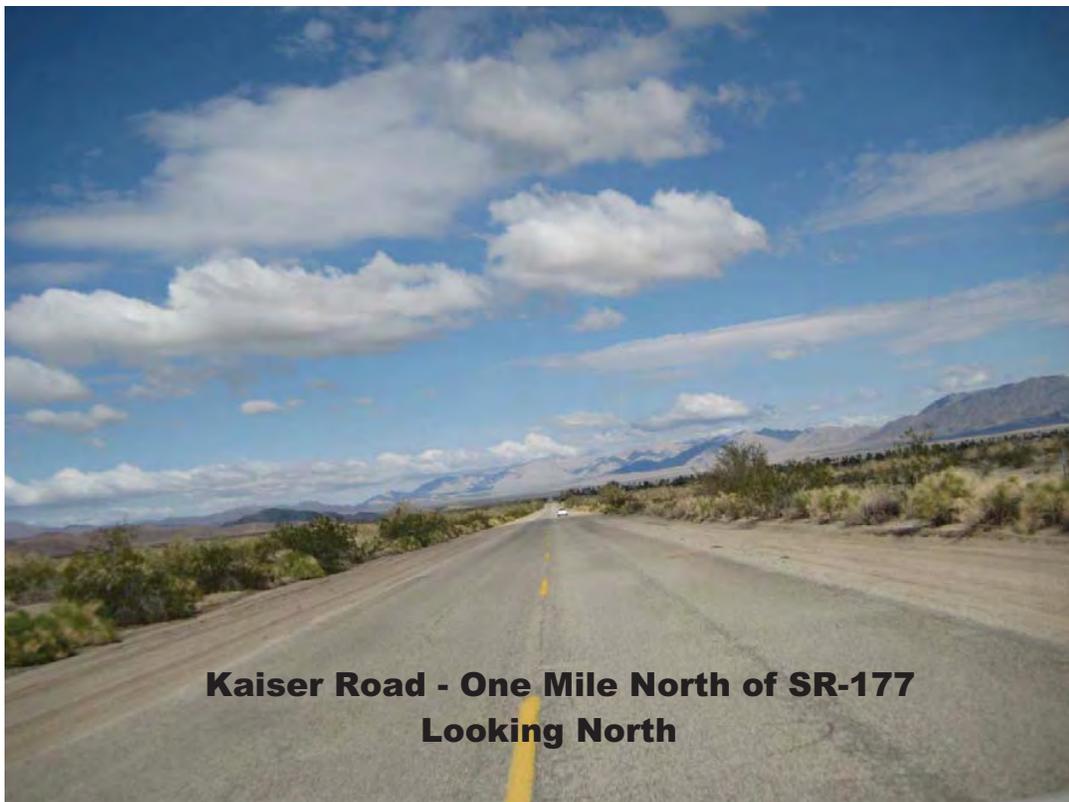
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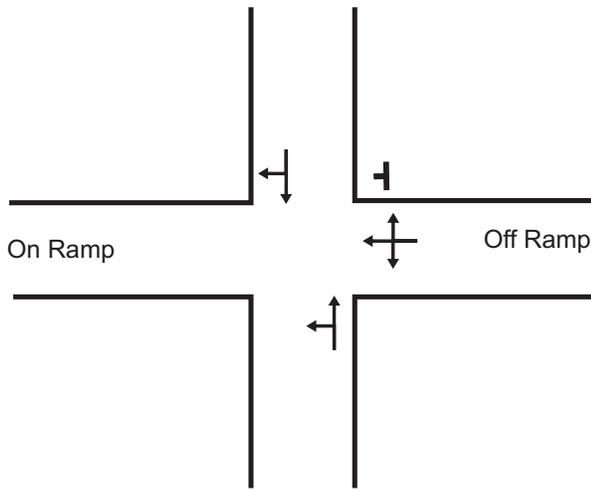
Kaiser Road & SR-177 Looking South East



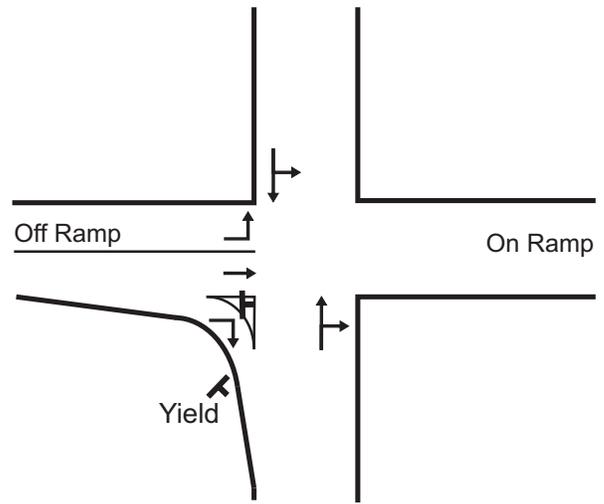
**Kaiser Road - One Mile North of SR-177
Looking North**



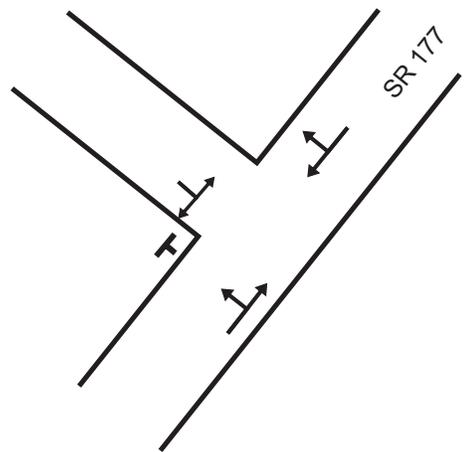
Figure 4, cont.



I-10 WEST BOUND (E-W)
and
STATE ROUTE 177 (N-S)



I-10 EASTBOUND (E-W)
AND
STATE ROUTE 177 (N-S)



KAISER ROAD (NW-SE)
AND
STATE ROUTE 177 (NE-SW)

Legend

↔ Direction of Traffic

⊥ Stop Sign

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234 EAST DRAKE DRIVE
SAN BERNARDINO, CA 92408
(909) 884-3222 FAX (909) 383-1577
E-MAIL: richardh@hkagroup.com

DESCRIPTION

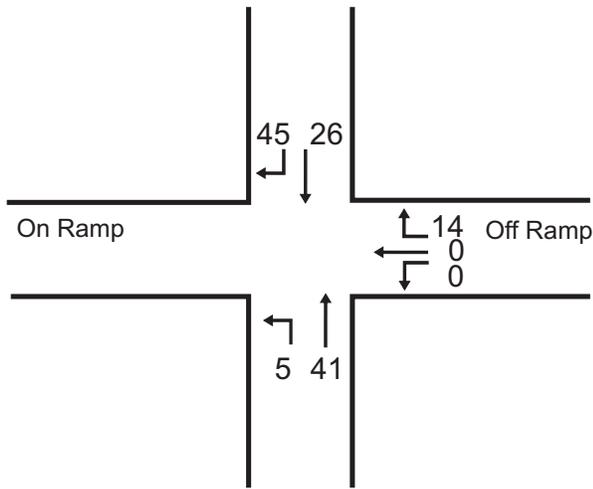
Existing Lane
Configurations
Figure 5

PROJECT NO.

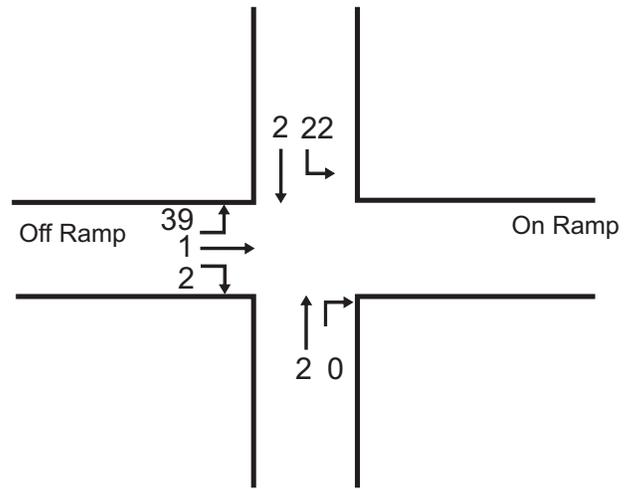
08-1002

DATE

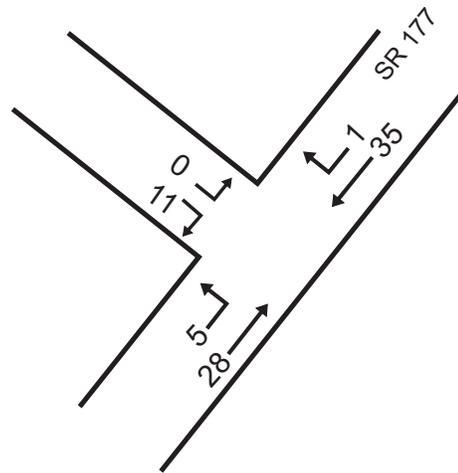
4-05-2010



I-10 WEST BOUND (E-W)
and
STATE ROUTE 177 (N-S)



I-10 EAST BOUND (E-W)
AND
STATE ROUTE 177 (N-S)



KAISER ROAD (NW-SE)
AND
STATE ROUTE 177 (NE-SW)

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DESCRIPTION

AM Existing Traffic

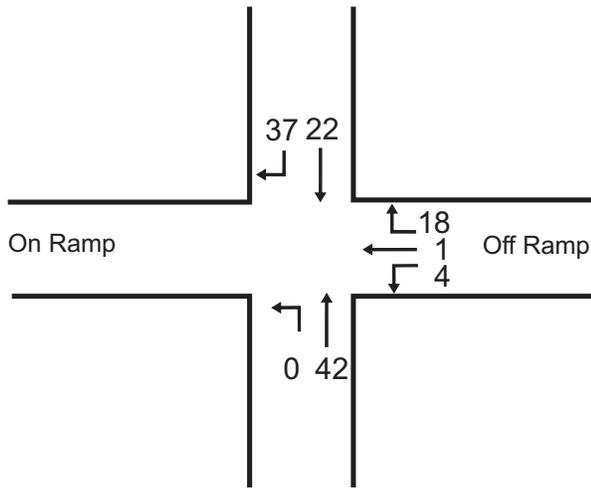
Figure 6A

PROJECT NO.

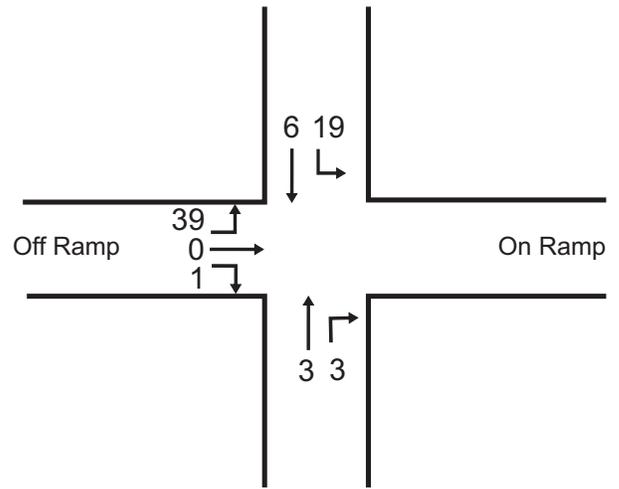
08-1002

DATE

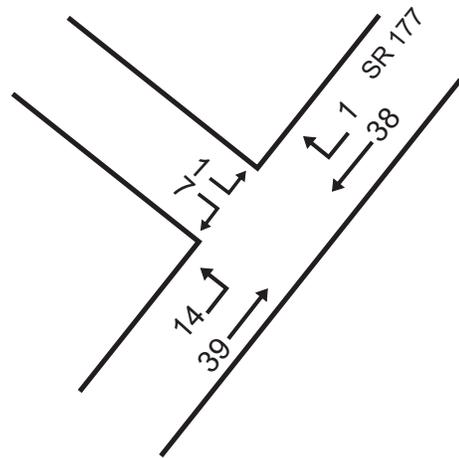
04-07-2010



I-10 WEST BOUND (E-W)
and
STATE ROUTE 177 (N-S)



I-10 EASTBOUND (E-W)
AND
STATE ROUTE 177 (N-S)



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DESCRIPTION

PM Existing Traffic

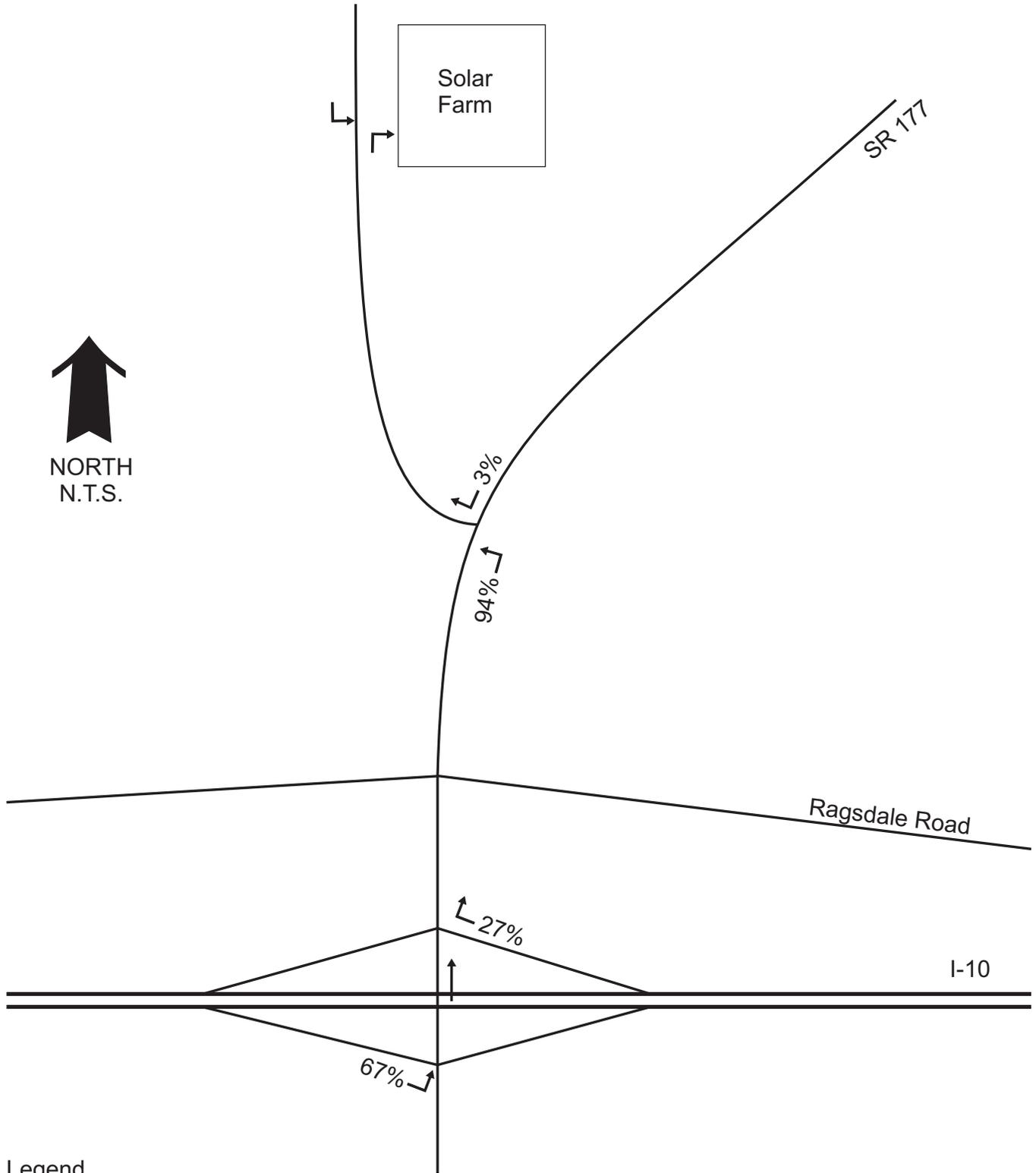
Figure 6B

PROJECT NO.

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04-07-2010



Legend



Note: Distribution shown is for SOLAR FARM & TRANSMISSION LINE crews

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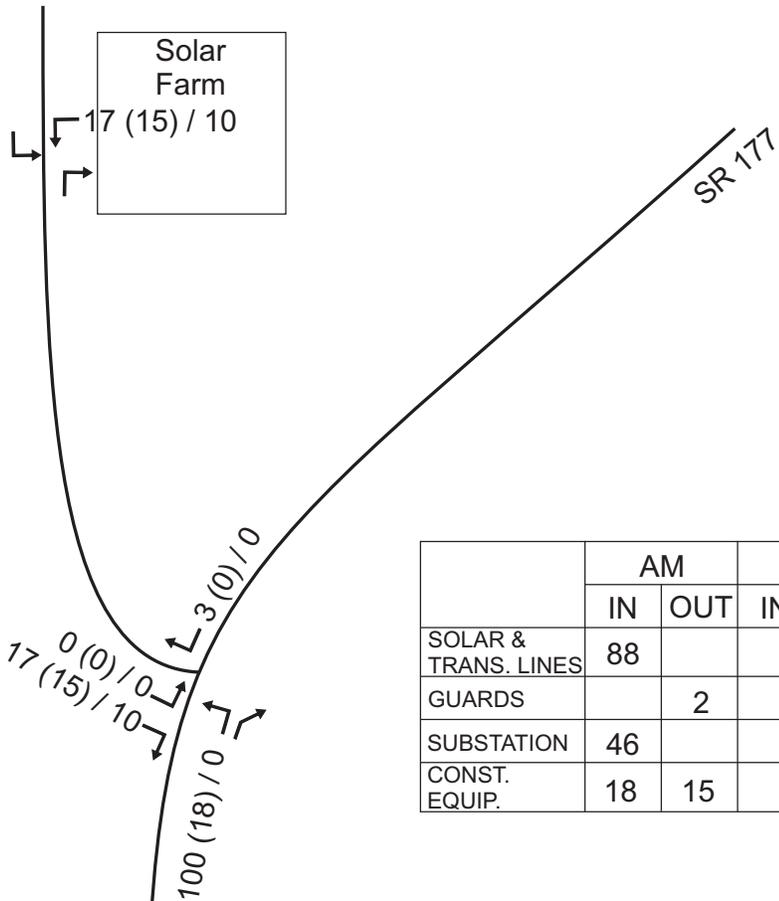
Project Trip
 Distribution, %
 Figure 7

PROJECT NO.

08-1002

DATE

4-07-2010

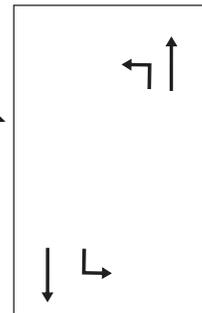


	AM		PM	
	IN	OUT	IN	OUT
SOLAR & TRANS. LINES	88			10
GUARDS		2		
SUBSTATION	46			8
CONST. EQUIP.	18	15		

Legend

↕ Direction of Traffic

x (x) / x - AM Trips (Equipment Trips) / PM Trips



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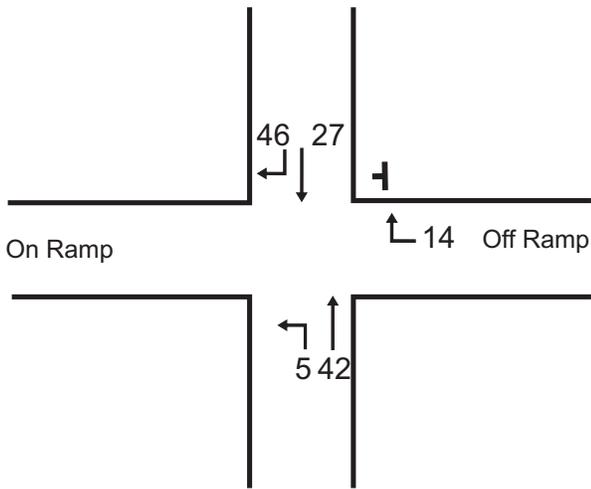
Project Trip
 Distribution, PCE's
 Figure 8

PROJECT NO.

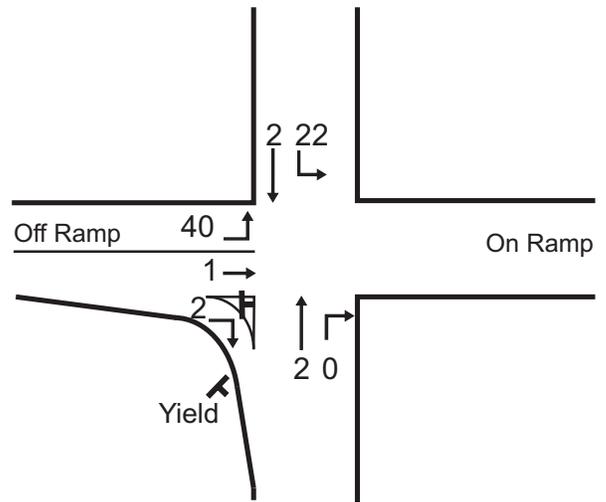
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DATE

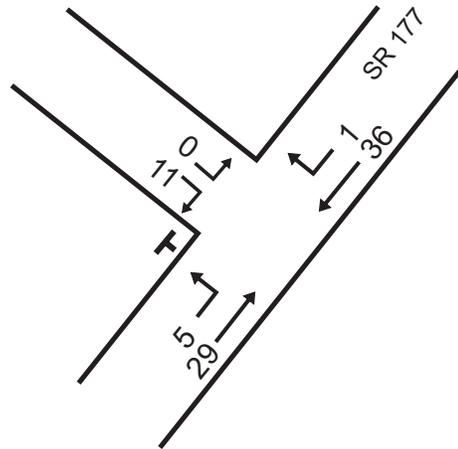
05-05-2010



I-10 WEST BOUND (E-W)
and
STATE ROUTE 177 (N-S)



I-10 EASTBOUND (E-W)
AND
STATE ROUTE 177 (N-S)



KAISER ROAD (NW-SE)
AND
STATE ROUTE 177 (NE-SW)

Legend

↔ Direction of Traffic

⊣ Stop Sign

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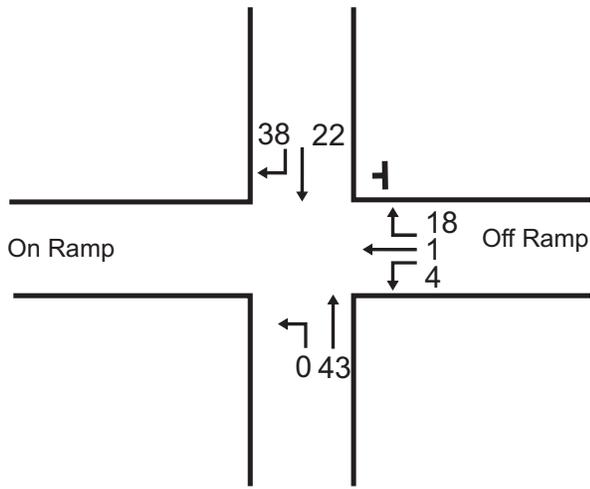
AM Background Traffic adjusted
for Construction Period
Figure 9A

PROJECT NO.

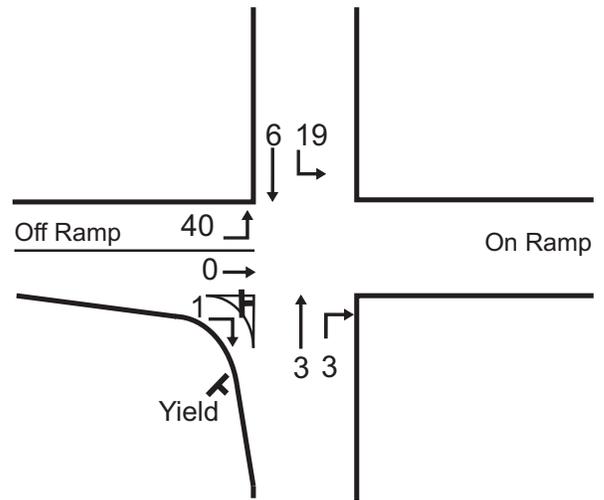
08-1002

DATE

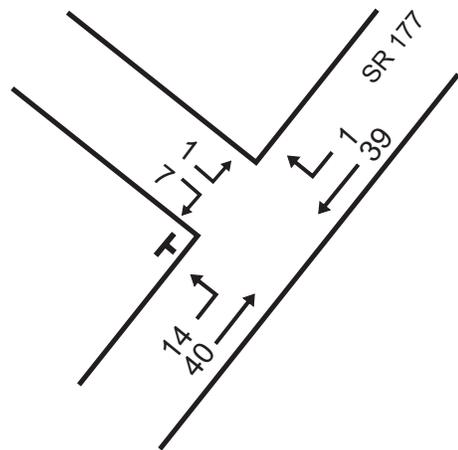
4-07-2010



I-10 WEST BOUND (E-W)
and
STATE ROUTE 177 (N-S)



I-10 EAST BOUND (E-W)
AND
STATE ROUTE 177 (N-S)



KAISER ROAD (NW-SE)
AND
STATE ROUTE 177 (NE-SW)

Legend

- Direction of Traffic
- Stop Sign

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DESCRIPTION

PM Background Traffic Adjusted
for Construction Period, PCEs

Figure 9B

PROJECT NO.

08-1002

DATE

4-07-2010

Appendix A Background Information

- LOS Tables
- TRANSMISSION LINE Route Alternatives
- Existing Traffic Counts – Intersections and Freeway
- General Plan Circulation Element
- Transit Map
- Population Data

EXHIBIT 23-2. LOS CRITERIA FOR BASIC FREEWAY SEGMENTS

Criteria	LOS				
	A	B	C	D	E
FFS = 75 mi/h					
Maximum density (pc/mi/ln)	11	18	26	35	45
Minimum speed (mi/h)	75.0	74.8	70.6	62.2	53.3
Maximum v/c	0.34	0.56	0.76	0.90	1.00
Maximum service flow rate (pc/h/ln)	820	1350	1830	2170	2400
FFS = 70 mi/h					
Maximum density (pc/mi/ln)	11	18	26	35	45
Minimum speed (mi/h)	70.0	70.0	68.2	61.5	53.3
Maximum v/c	0.32	0.53	0.74	0.90	1.00
Maximum service flow rate (pc/h/ln)	770	1260	1770	2150	2400
FFS = 65 mi/h					
Maximum density (pc/mi/ln)	11	18	26	35	45
Minimum speed (mi/h)	65.0	65.0	64.6	59.7	52.2
Maximum v/c	0.30	0.50	0.71	0.89	1.00
Maximum service flow rate (pc/h/ln)	710	1170	1680	2090	2350
FFS = 60 mi/h					
Maximum density (pc/mi/ln)	11	18	26	35	45
Minimum speed (mi/h)	60.0	60.0	60.0	57.6	51.1
Maximum v/c	0.29	0.47	0.68	0.88	1.00
Maximum service flow rate (pc/h/ln)	660	1080	1560	2020	2300
FFS = 55 mi/h					
Maximum density (pc/mi/ln)	11	18	26	35	45
Minimum speed (mi/h)	55.0	55.0	55.0	54.7	50.0
Maximum v/c	0.27	0.44	0.64	0.85	1.00
Maximum service flow rate (pc/h/ln)	600	990	1430	1910	2250

Note:

The exact mathematical relationship between density and v/c has not always been maintained at LOS boundaries because of the use of rounded values. Density is the primary determinant of LOS. The speed criterion is the speed at maximum density for a given LOS.

LOS

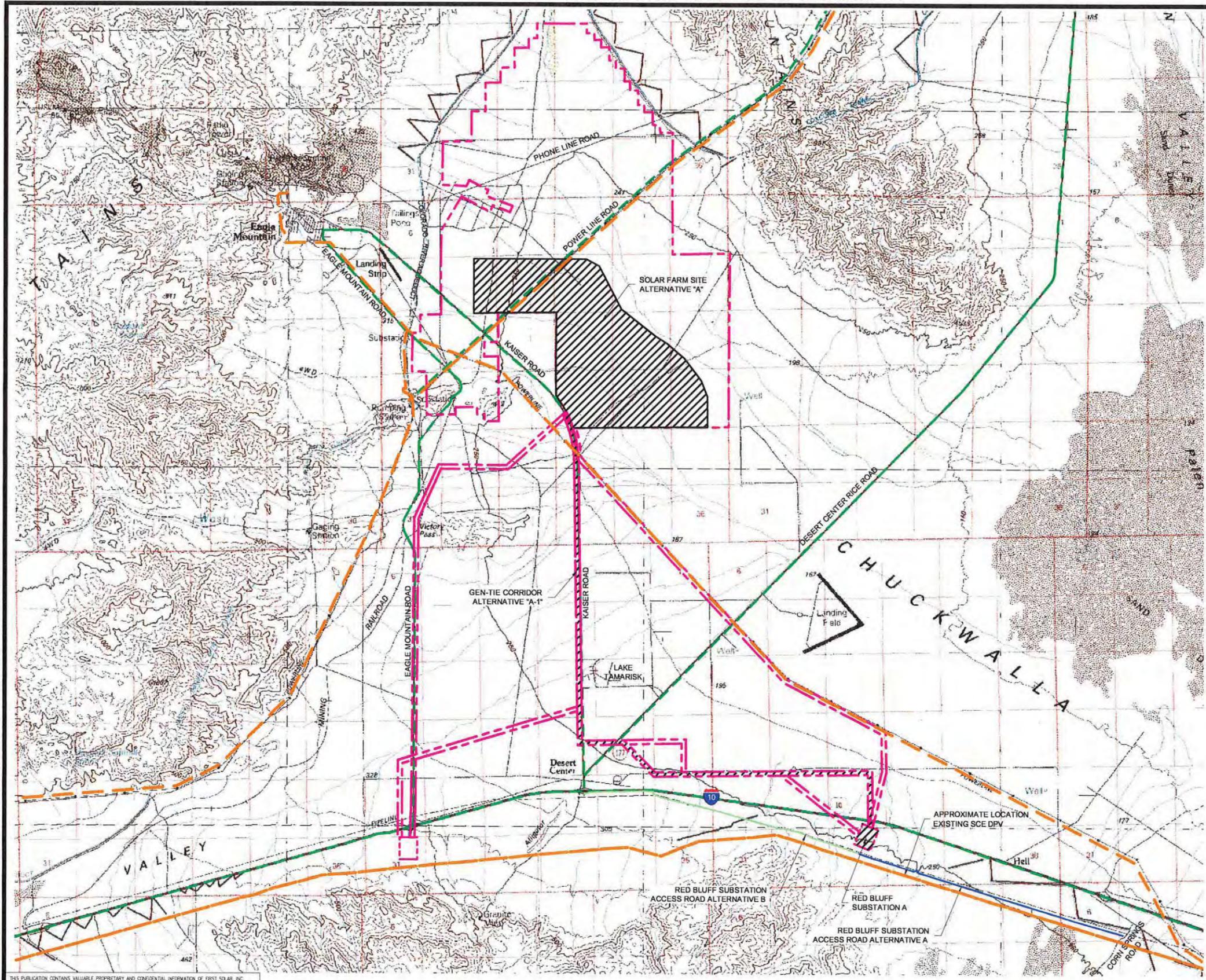
The average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. LOS is directly related to the control delay value. The criteria are listed in Exhibit 16-2.

EXHIBIT 16-2. LOS CRITERIA FOR SIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

LOS criteria

PROJECT STUDY AREA - GEN-TIE CORRIDOR "A-1"



LEGEND

- PROJECT STUDY AREA BOUNDARY *
- EXISTING ROAD
- EXISTING TRANSMISSION LINE
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,494 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.

First Solar
 DESERT SUNLIGHT HOLDINGS, LLC
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 OAKLAND, CALIFORNIA 94607
 PHONE: (510) 625-7400
 WWW.FIRSTSOLAR.COM

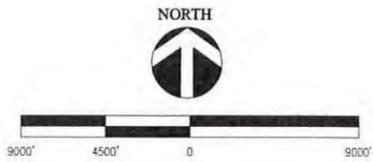
DESERT SUNLIGHT
 SOLAR FARM (ALTERNATIVE "A")
 RIVERSIDE COUNTY
 CALIFORNIA
 550 MW-ac

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PROJECT STUDY AREA
 GEN-TIE CORRIDOR
 ALTERNATIVE "A-1"

V-105
 SHEET 3 OF 111



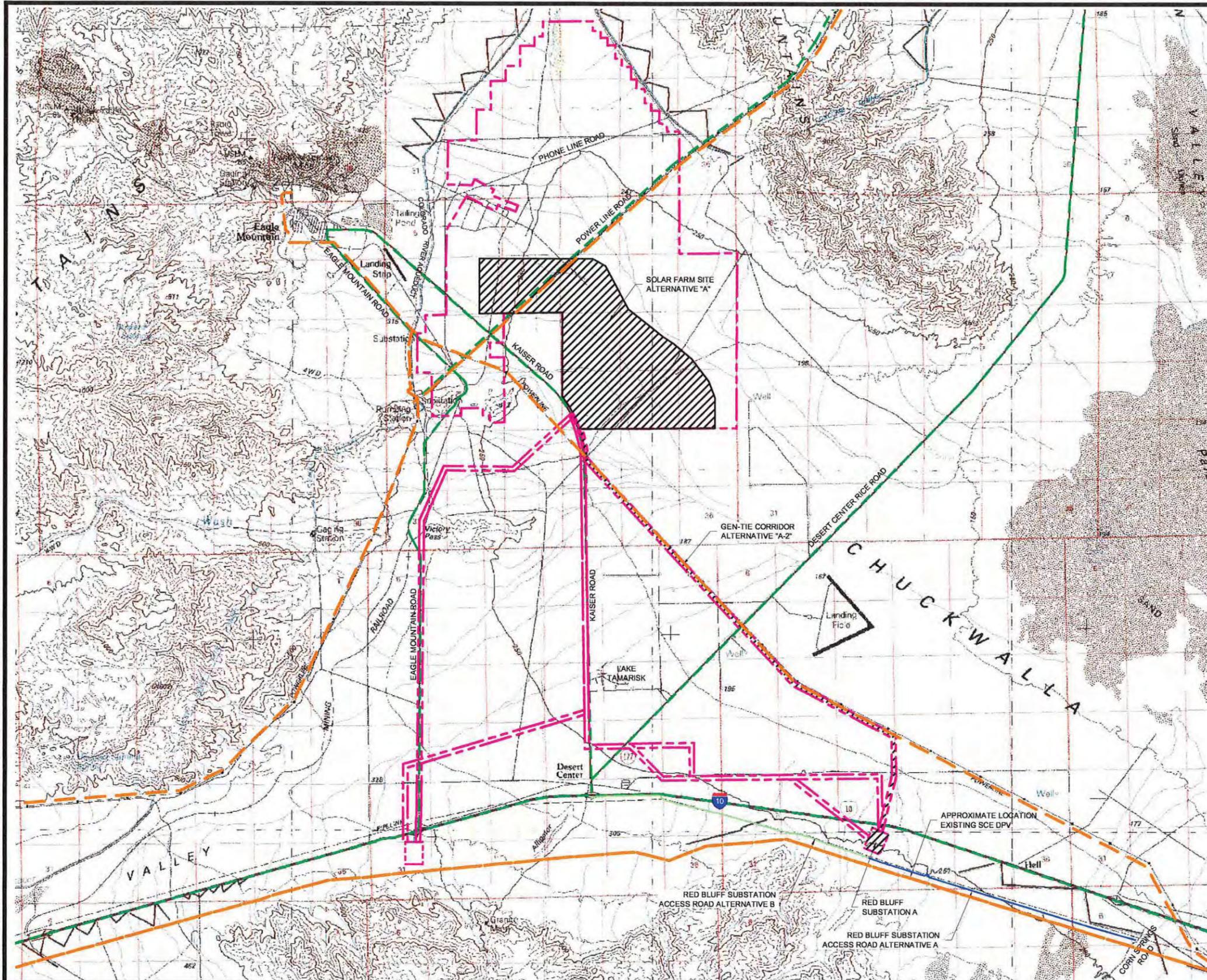
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PROJECT STUDY AREA - GEN-TIE CORRIDOR "A-2"



LEGEND

- PROJECT STUDY AREA BOUNDARY *
- EXISTING ROAD
- EXISTING TRANSMISSION LINE
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,446 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.



DESERT SUNLIGHT HOLDINGS, LLC
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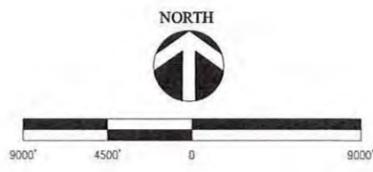
DESERT SUNLIGHT
SOLAR FARM (ALTERNATIVE "A")
RIVERSIDE COUNTY
CALIFORNIA
550 MW-ac

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GEN-TIE CORRIDOR
ALTERNATIVE "A-2"**

V-106
SHEET 4 OF 111



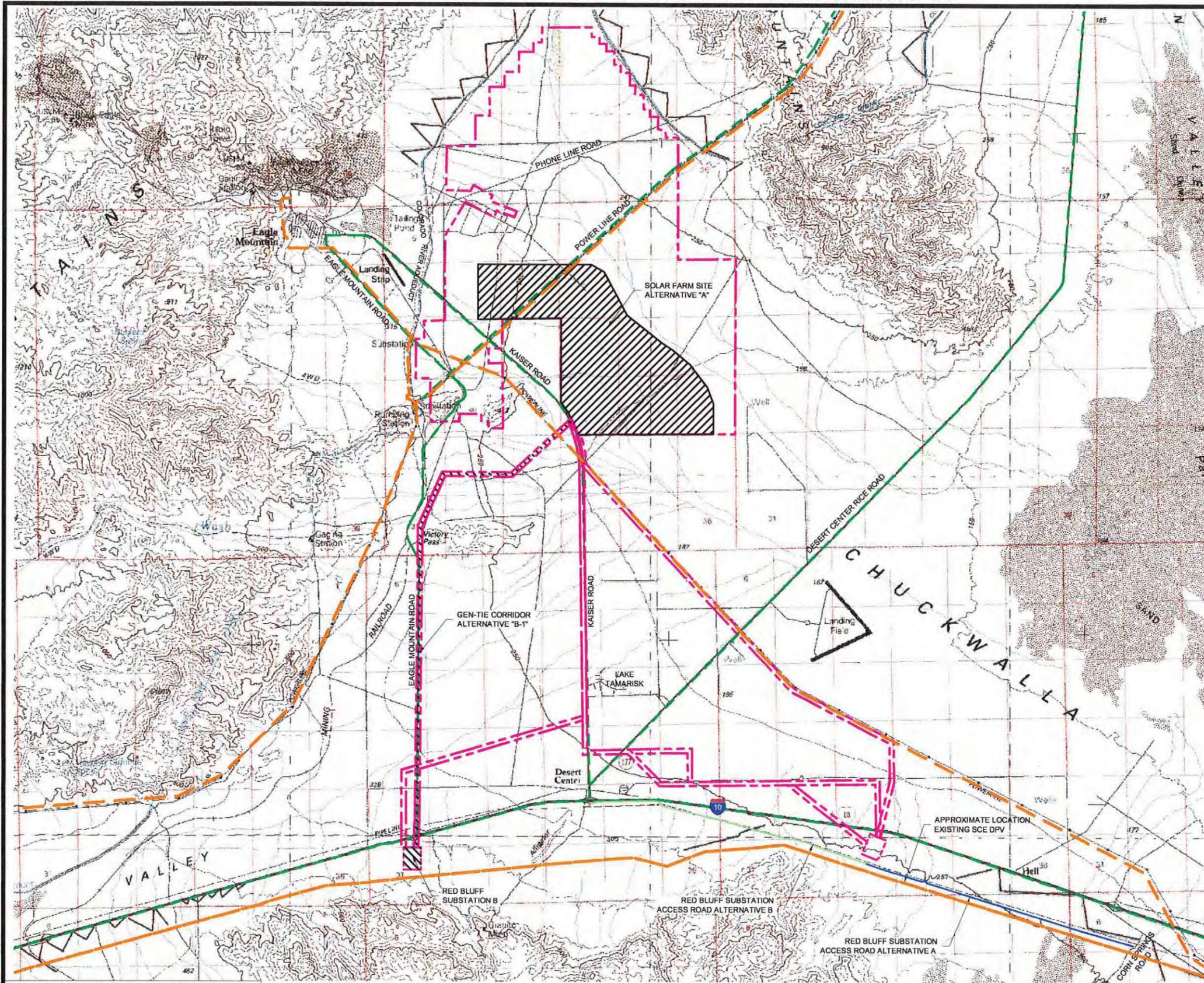
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PROJECT STUDY AREA - GEN-TIE CORRIDOR ALTERNATIVE "B-1"



LEGEND

- - - PROJECT STUDY AREA BOUNDARY *
- - - EXISTING ROAD
- - - EXISTING TRANSMISSION LINE
- - - RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- - - RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,438 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.

DESERT SUNLIGHT HOLDINGS, LLC
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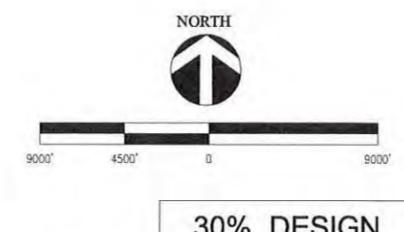
DESERT SUNLIGHT
SOLAR FARM (ALTERNATIVE "A")
RIVERSIDE COUNTY
CALIFORNIA
550 MW-ac

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ALTERNATIVE "B-1"**

V-107
SHEET 5 OF 111



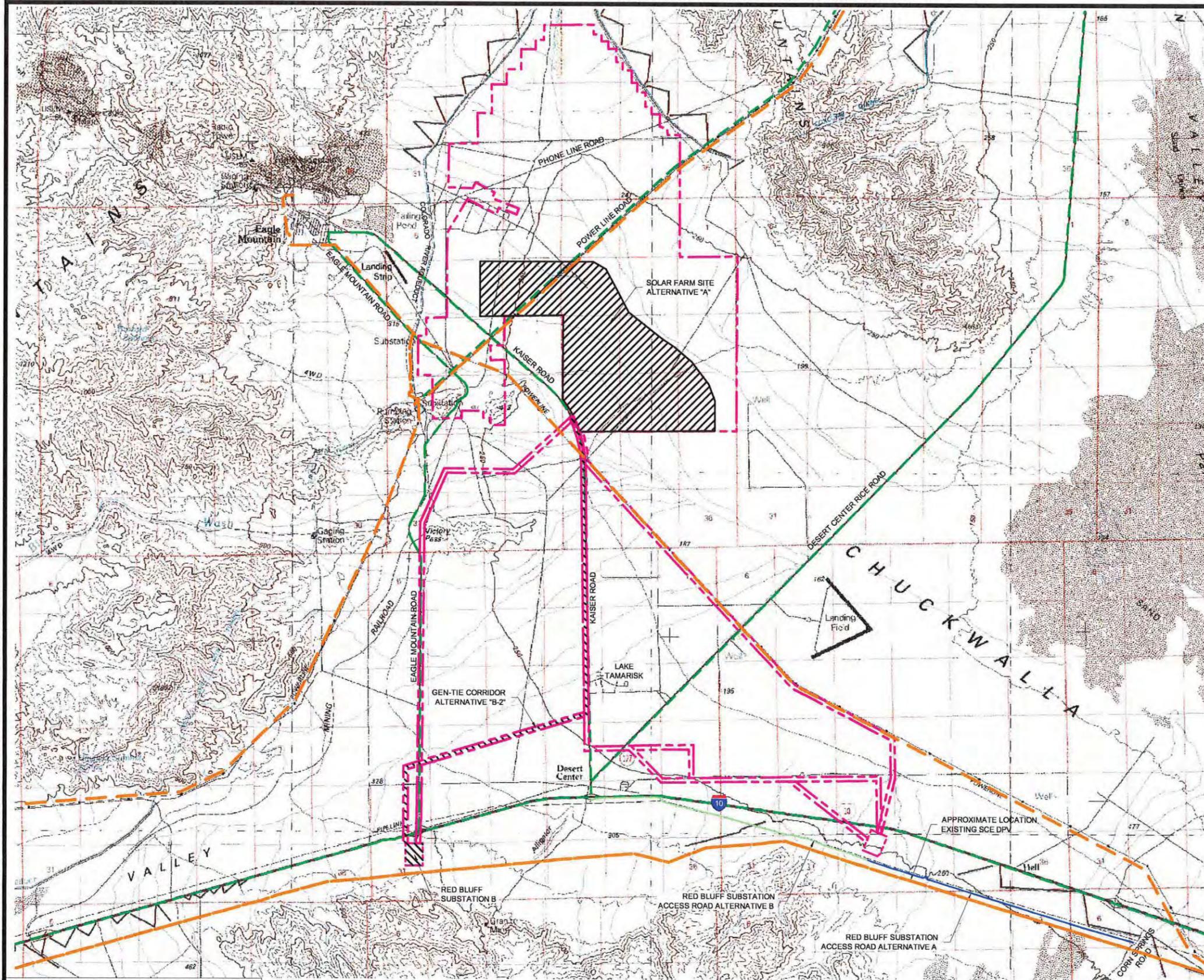
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PROJECT STUDY AREA - GEN-TIE CORRIDOR ALTERNATIVE "B-2"



LEGEND

- PROJECT STUDY AREA BOUNDARY *
- EXISTING ROAD
- EXISTING TRANSMISSION LINE
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE A STUDY AREA *
- RED BLUFF SUBSTATION ACCESS ROAD ALTERNATIVE B STUDY AREA *
- PROJECT SITE

* NOTE:

1. THE PROJECT STUDY AREA IS COMPRISED OF APPROXIMATELY 19,246 ACRES. IT INCLUDES AREA RESERVED FOR SOLAR FARM AND RED BLUFF SUBSTATION, 400 FEET WIDE GEN-TIE CORRIDORS AND 100 FEET WIDE ACCESS ROADS FOR RED BLUFF SUBSTATION - ALTERNATIVE A & B.
2. THE PROJECT SITE WILL BE LOCATED WITHIN THE PROJECT STUDY AREA AND WILL INCLUDE APPROXIMATELY 4,450 ACRES. IT INCLUDES SOLAR FARM AREA, 160 FEET WIDE GEN-TIE CORRIDOR AND 75 ACRE SUBSTATION.

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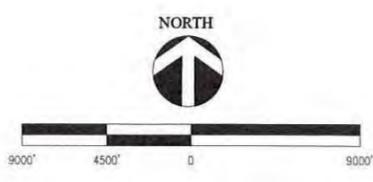
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RIVERSIDE COUNTY
CALIFORNIA
550 MW-ac

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ALTERNATIVE "B-2"**

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County of Riverside
 N/S: SR-177
 E/W: I-10 Eastbound Ramps
 Weather: Sunny

File Name : CRV17710EAM
 Site Code : 10040001
 Start Date : 2/17/2010
 Page No : 1

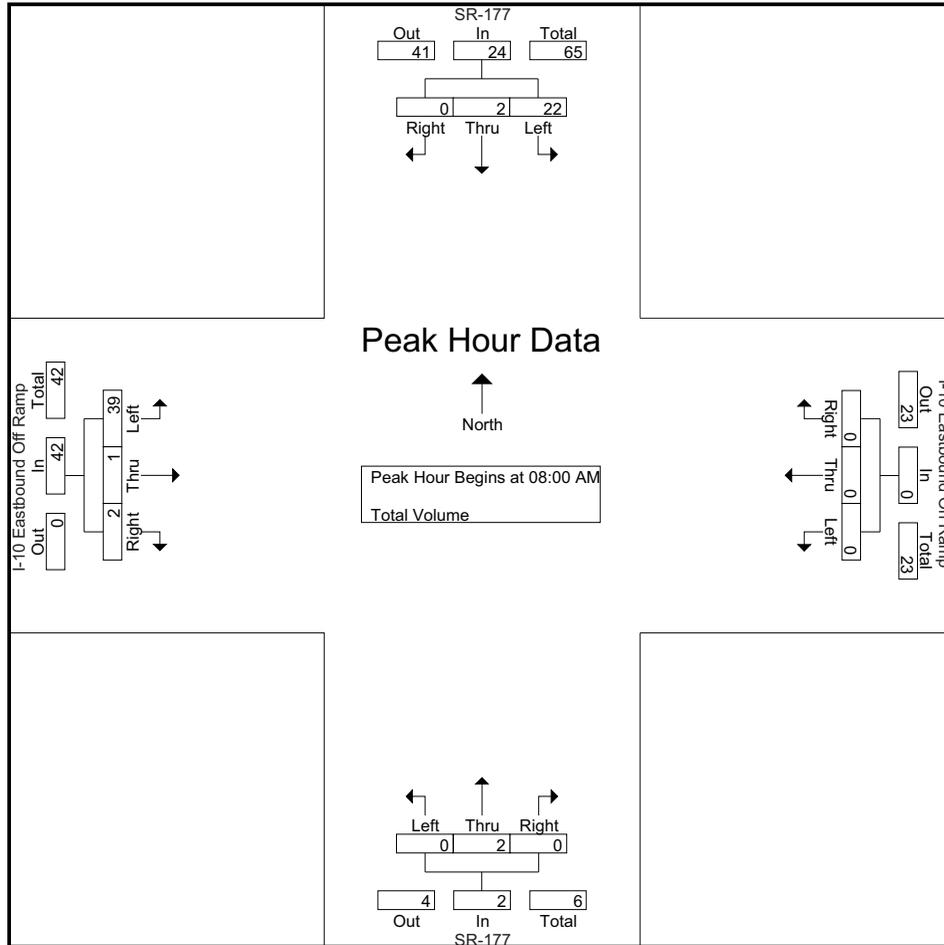
Groups Printed- Total Volume

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	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	4	0	0	4	0	0	0	0	0	0	0	0	10	0	3	13	17
07:15 AM	5	0	0	5	0	0	0	0	0	0	1	1	6	0	1	7	13
07:30 AM	4	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6	10
07:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	7
Total	16	0	0	16	0	0	0	0	0	0	1	1	26	0	4	30	47
08:00 AM	4	2	0	6	0	0	0	0	0	2	0	2	8	0	0	8	16
08:15 AM	6	0	0	6	0	0	0	0	0	0	0	0	8	1	2	11	17
08:30 AM	9	0	0	9	0	0	0	0	0	0	0	0	13	0	0	13	22
08:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	10	0	0	10	13
Total	22	2	0	24	0	0	0	0	0	2	0	2	39	1	2	42	68
Grand Total	38	2	0	40	0	0	0	0	0	2	1	3	65	1	6	72	115
Apprch %	95	5	0		0	0	0		0	66.7	33.3		90.3	1.4	8.3		
Total %	33	1.7	0	34.8	0	0	0	0	0	1.7	0.9	2.6	56.5	0.9	5.2	62.6	

Start Time	SR-177 Southbound				I-10 Eastbound On Ramp Westbound				SR-177 Northbound				I-10 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	4	2	0	6	0	0	0	0	0	2	0	2	8	0	0	8	16
08:15 AM	6	0	0	6	0	0	0	0	0	0	0	0	8	1	2	11	17
08:30 AM	9	0	0	9	0	0	0	0	0	0	0	0	13	0	0	13	22
08:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	10	0	0	10	13
Total Volume	22	2	0	24	0	0	0	0	0	2	0	2	39	1	2	42	68
% App. Total	91.7	8.3	0		0	0	0		0	100	0		92.9	2.4	4.8		
PHF	.611	.250	.000	.667	.000	.000	.000	.000	.000	.250	.000	.250	.750	.250	.250	.808	.773

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:15 AM				08:00 AM			
+0 mins.	3	0	0	3	0	0	0	0	0	0	1	1	8	0	0	8
+15 mins.	4	2	0	6	0	0	0	0	0	0	0	0	8	1	2	11
+30 mins.	6	0	0	6	0	0	0	0	0	0	0	0	13	0	0	13
+45 mins.	9	0	0	9	0	0	0	0	0	2	0	2	10	0	0	10
Total Volume	22	2	0	24	0	0	0	0	0	2	1	3	39	1	2	42
% App. Total	91.7	8.3	0		0	0	0		0	66.7	33.3		92.9	2.4	4.8	
PHF	.611	.250	.000	.667	.000	.000	.000	.000	.000	.250	.250	.375	.750	.250	.250	.808

County of Riverside
 N/S: SR-177
 E/W: I-10 Eastbound Ramps
 Weather: Sunny

File Name : CRV17710EPM
 Site Code : 10004001
 Start Date : 2/17/2010
 Page No : 1

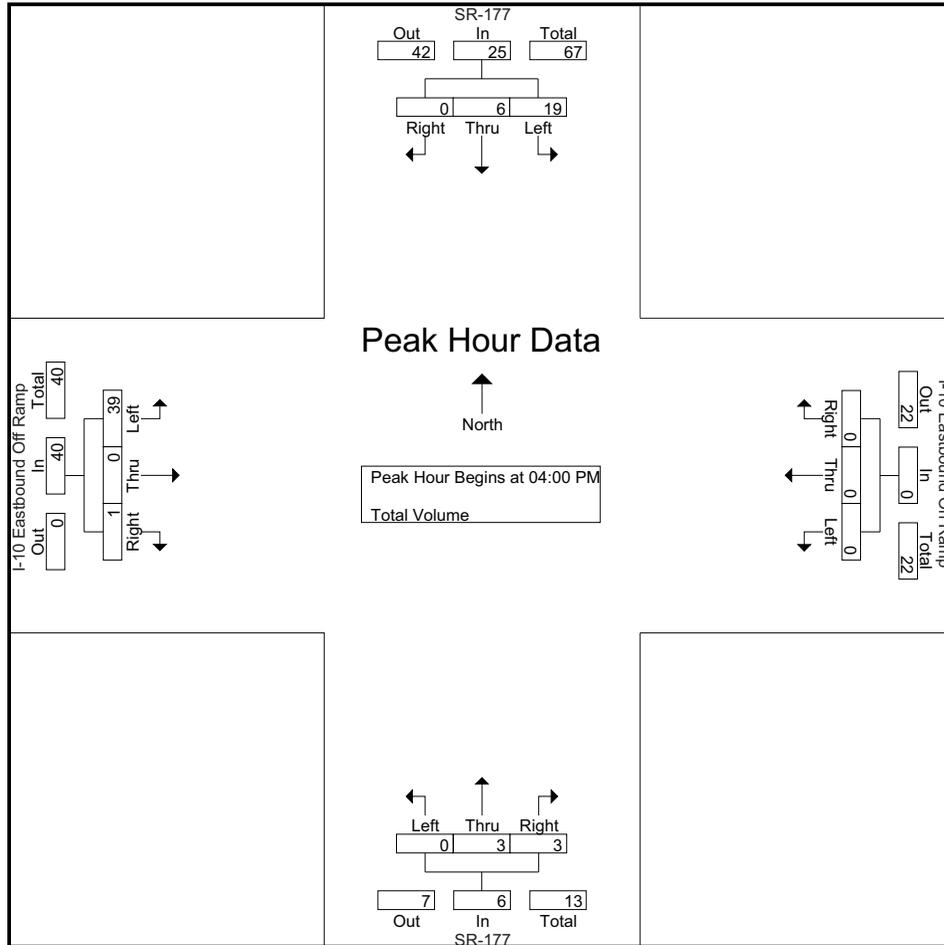
Groups Printed- Total Volume

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	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	3	0	10	0	0	0	0	0	0	0	0	7	0	0	7	17
04:15 PM	3	1	0	4	0	0	0	0	0	0	1	1	13	0	0	13	18
04:30 PM	8	0	0	8	0	0	0	0	0	0	1	1	10	0	0	10	19
04:45 PM	1	2	0	3	0	0	0	0	0	3	1	4	9	0	1	10	17
Total	19	6	0	25	0	0	0	0	0	3	3	6	39	0	1	40	71
05:00 PM	6	0	0	6	0	0	0	0	0	0	1	1	8	1	0	9	16
05:15 PM	1	0	0	1	0	0	0	0	0	0	3	3	6	0	0	6	10
05:30 PM	4	0	0	4	0	0	0	0	0	1	0	1	1	0	0	1	6
05:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	3	0	0	3	6
Total	14	0	0	14	0	0	0	0	0	1	4	5	18	1	0	19	38
Grand Total	33	6	0	39	0	0	0	0	0	4	7	11	57	1	1	59	109
Apprch %	84.6	15.4	0		0	0	0		0	36.4	63.6		96.6	1.7	1.7		
Total %	30.3	5.5	0	35.8	0	0	0	0	0	3.7	6.4	10.1	52.3	0.9	0.9	54.1	

Start Time	SR-177 Southbound				I-10 Eastbound On Ramp Westbound				SR-177 Northbound				I-10 Eastbound Off Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	3	0	10	0	0	0	0	0	0	0	0	7	0	0	7	17
04:15 PM	3	1	0	4	0	0	0	0	0	0	1	1	13	0	0	13	18
04:30 PM	8	0	0	8	0	0	0	0	0	0	1	1	10	0	0	10	19
04:45 PM	1	2	0	3	0	0	0	0	0	3	1	4	9	0	1	10	17
Total Volume	19	6	0	25	0	0	0	0	0	3	3	6	39	0	1	40	71
% App. Total	76	24	0		0	0	0		0	50	50		97.5	0	2.5		
PHF	.594	.500	.000	.625	.000	.000	.000	.000	.000	.250	.750	.375	.750	.000	.250	.769	.934

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:15 PM			
+0 mins.	7	3	0	10	0	0	0	0	0	0	1	1	13	0	0	13
+15 mins.	3	1	0	4	0	0	0	0	0	3	1	4	10	0	0	10
+30 mins.	8	0	0	8	0	0	0	0	0	0	1	1	9	0	1	10
+45 mins.	1	2	0	3	0	0	0	0	0	0	3	3	8	1	0	9
Total Volume	19	6	0	25	0	0	0	0	0	3	6	9	40	1	1	42
% App. Total	76	24	0		0	0	0		0	33.3	66.7		95.2	2.4	2.4	
PHF	.594	.500	.000	.625	.000	.000	.000	.000	.000	.250	.500	.563	.769	.250	.250	.808

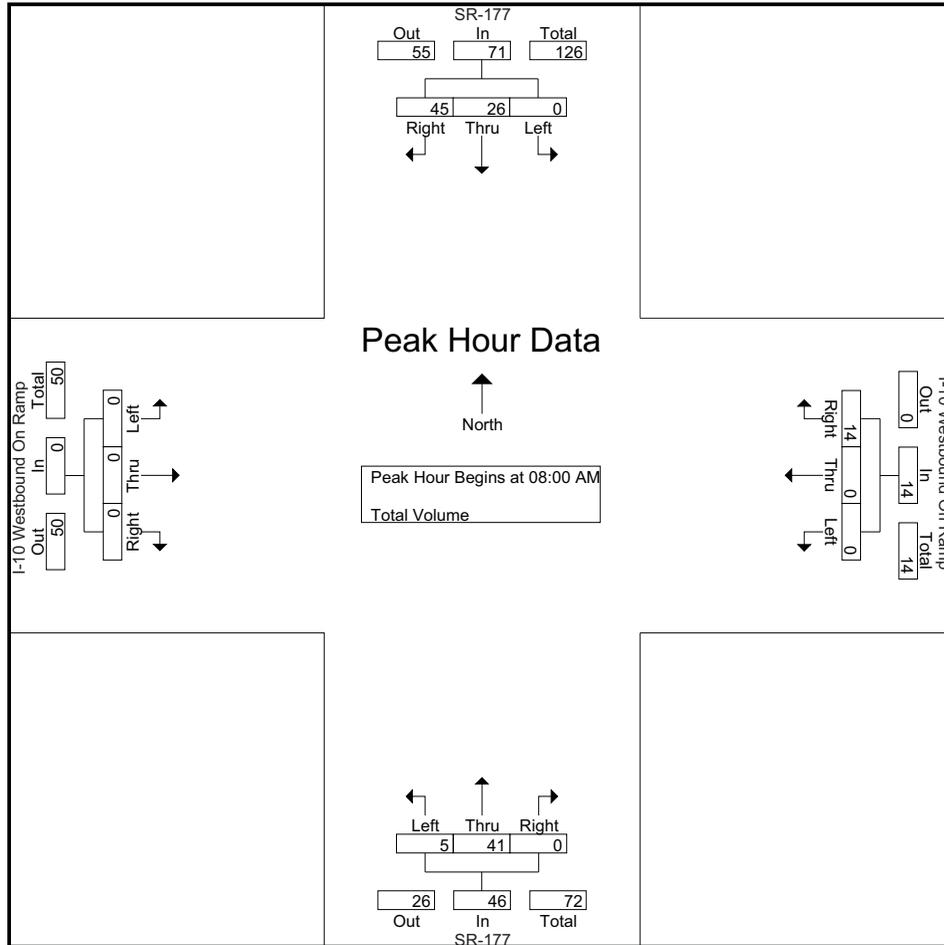
County of Riverside
 N/S: SR-177
 E/W: I-10 Westbound Ramps
 Weather: Sunny

File Name : CRV17710WAM
 Site Code : 10040001
 Start Date : 2/17/2010
 Page No : 1

Groups Printed- Total Volume

Start Time	SR-177 Southbound				I-10 Westbound Off Ramp Westbound				SR-177 Northbound				I-10 Westbound On Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
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07:15 AM	0	7	10	17	0	0	6	6	5	6	0	11	0	0	0	0	34
07:30 AM	0	3	6	9	0	0	3	3	1	5	0	6	0	0	0	0	18
07:45 AM	0	3	8	11	0	0	4	4	2	4	0	6	0	0	0	0	21
Total	0	18	32	50	0	2	14	16	8	25	0	33	0	0	0	0	99
08:00 AM	0	7	11	18	0	0	4	4	4	9	0	13	0	0	0	0	35
08:15 AM	0	6	13	19	0	0	2	2	1	8	0	9	0	0	0	0	30
08:30 AM	0	9	11	20	0	0	3	3	0	14	0	14	0	0	0	0	37
08:45 AM	0	4	10	14	0	0	5	5	0	10	0	10	0	0	0	0	29
Total	0	26	45	71	0	0	14	14	5	41	0	46	0	0	0	0	131
Grand Total	0	44	77	121	0	2	28	30	13	66	0	79	0	0	0	0	230
Apprch %	0	36.4	63.6		0	6.7	93.3		16.5	83.5	0		0	0	0		
Total %	0	19.1	33.5	52.6	0	0.9	12.2	13	5.7	28.7	0	34.3	0	0	0	0	

Start Time	SR-177 Southbound				I-10 Westbound Off Ramp Westbound				SR-177 Northbound				I-10 Westbound On Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	0	7	11	18	0	0	4	4	4	9	0	13	0	0	0	0	35
08:15 AM	0	6	13	19	0	0	2	2	1	8	0	9	0	0	0	0	30
08:30 AM	0	9	11	20	0	0	3	3	0	14	0	14	0	0	0	0	37
08:45 AM	0	4	10	14	0	0	5	5	0	10	0	10	0	0	0	0	29
Total Volume	0	26	45	71	0	0	14	14	5	41	0	46	0	0	0	0	131
% App. Total	0	36.6	63.4		0	0	100		10.9	89.1	0		0	0	0		
PHF	.000	.722	.865	.888	.000	.000	.700	.700	.313	.732	.000	.821	.000	.000	.000	.000	.885



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				07:15 AM				08:00 AM				07:00 AM			
+0 mins.	0	7	11	18	0	0	6	6	4	9	0	13	0	0	0	0
+15 mins.	0	6	13	19	0	0	3	3	1	8	0	9	0	0	0	0
+30 mins.	0	9	11	20	0	0	4	4	0	14	0	14	0	0	0	0
+45 mins.	0	4	10	14	0	0	4	4	0	10	0	10	0	0	0	0
Total Volume	0	26	45	71	0	0	17	17	5	41	0	46	0	0	0	0
% App. Total	0	36.6	63.4		0	0	100		10.9	89.1	0		0	0	0	
PHF	.000	.722	.865	.888	.000	.000	.708	.708	.313	.732	.000	.821	.000	.000	.000	.000

County of Riverside
 N/S: SR-177
 E/W: I-10 Westbound Ramps
 Weather: Sunny

File Name : CRV17710WPM
 Site Code : 10040001
 Start Date : 2/17/2010
 Page No : 1

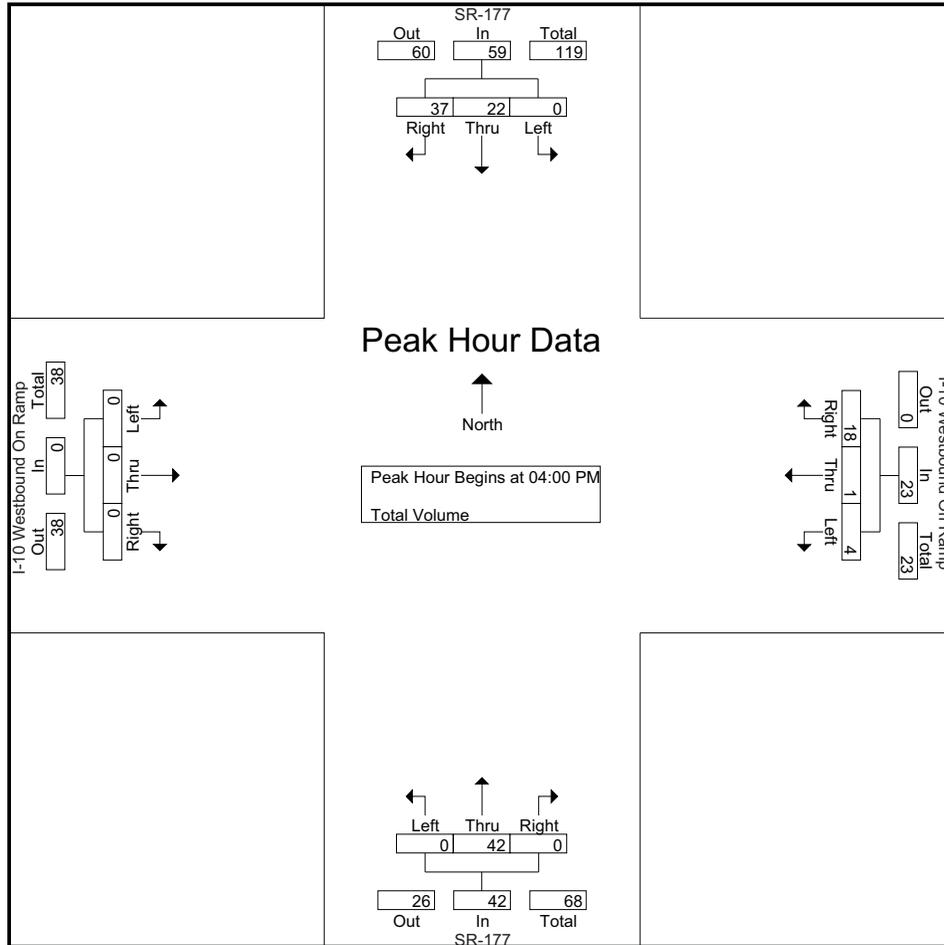
Groups Printed- Total Volume

Start Time	SR-177 Southbound				I-10 Westbound Off Ramp Westbound				SR-177 Northbound				I-10 Westbound On Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	8	12	20	4	0	6	10	0	7	0	7	0	0	0	0	37
04:15 PM	0	4	12	16	0	0	6	6	0	13	0	13	0	0	0	0	35
04:30 PM	0	8	11	19	0	0	2	2	0	10	0	10	0	0	0	0	31
04:45 PM	0	2	2	4	0	1	4	5	0	12	0	12	0	0	0	0	21
Total	0	22	37	59	4	1	18	23	0	42	0	42	0	0	0	0	124
05:00 PM	0	5	4	9	1	2	5	8	0	8	0	8	0	0	0	0	25
05:15 PM	0	1	11	12	0	0	3	3	0	6	0	6	0	0	0	0	21
05:30 PM	0	4	3	7	0	0	6	6	0	1	0	1	0	0	0	0	14
05:45 PM	0	4	0	4	0	0	5	5	0	3	0	3	0	0	0	0	12
Total	0	14	18	32	1	2	19	22	0	18	0	18	0	0	0	0	72
Grand Total	0	36	55	91	5	3	37	45	0	60	0	60	0	0	0	0	196
Apprch %	0	39.6	60.4		11.1	6.7	82.2		0	100	0		0	0	0		
Total %	0	18.4	28.1	46.4	2.6	1.5	18.9	23	0	30.6	0	30.6	0	0	0	0	

Start Time	SR-177 Southbound				I-10 Westbound Off Ramp Westbound				SR-177 Northbound				I-10 Westbound On Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	8	12	20	4	0	6	10	0	7	0	7	0	0	0	0	37
04:15 PM	0	4	12	16	0	0	6	6	0	13	0	13	0	0	0	0	35
04:30 PM	0	8	11	19	0	0	2	2	0	10	0	10	0	0	0	0	31
04:45 PM	0	2	2	4	0	1	4	5	0	12	0	12	0	0	0	0	21
Total	0	22	37	59	4	1	18	23	0	42	0	42	0	0	0	0	124
% App. Total	0	37.3	62.7		17.4	4.3	78.3		0	100	0		0	0	0		
PHF	.000	.688	.771	.738	.250	.250	.750	.575	.000	.808	.000	.808	.000	.000	.000	.000	.838

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	8	12	20	4	0	6	10	0	13	0	13	0	0	0	0
+15 mins.	0	4	12	16	0	0	6	6	0	10	0	10	0	0	0	0
+30 mins.	0	8	11	19	0	0	2	2	0	12	0	12	0	0	0	0
+45 mins.	0	2	2	4	0	1	4	5	0	8	0	8	0	0	0	0
Total Volume	0	22	37	59	4	1	18	23	0	43	0	43	0	0	0	0
% App. Total	0	37.3	62.7		17.4	4.3	78.3		0	100	0		0	0	0	
PHF	.000	.688	.771	.738	.250	.250	.750	.575	.000	.827	.000	.827	.000	.000	.000	.000

County of Riverside
 N/S: SR-177
 E/W: Kaiser Road
 Weather: Sunny

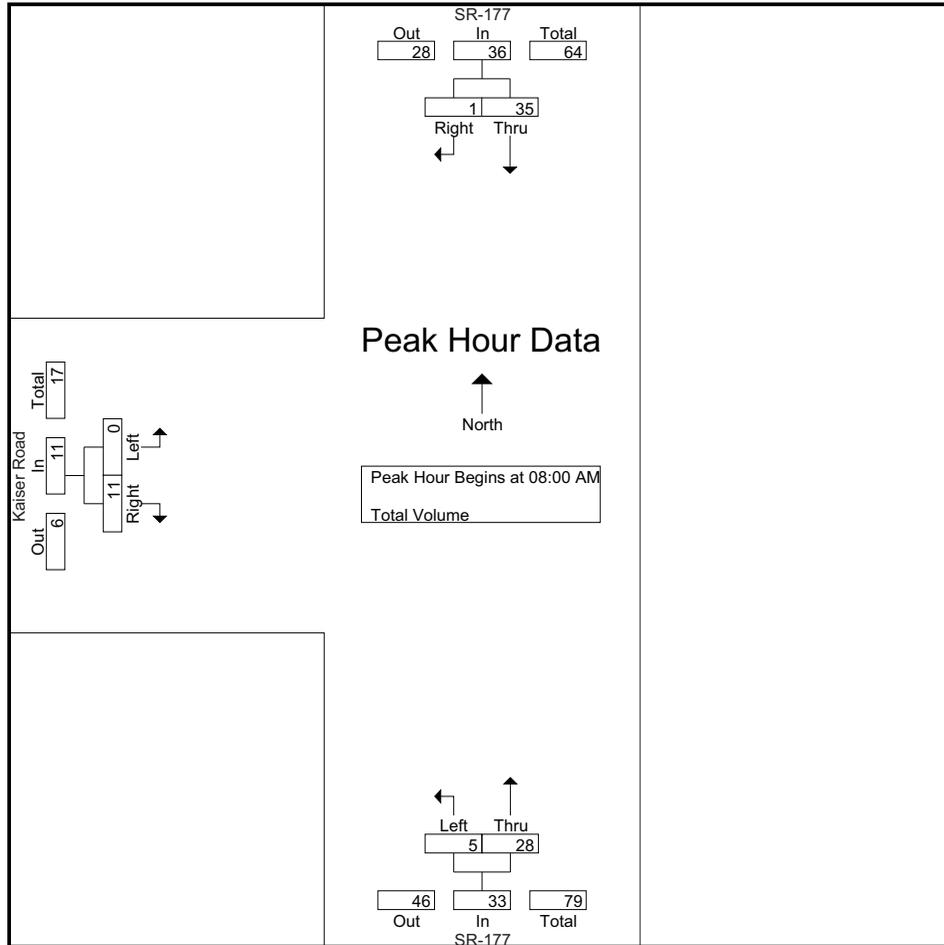
File Name : CRV177KAAM
 Site Code : 10040001
 Start Date : 2/17/2010
 Page No : 1

Groups Printed- Total Volume

Start Time	SR-177 Southbound			SR-177 Northbound			Kaiser Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	5	2	7	5	5	10	0	1	1	18
07:15 AM	10	0	10	1	4	5	0	3	3	18
07:30 AM	5	0	5	3	4	7	0	2	2	14
07:45 AM	4	1	5	0	1	1	0	5	5	11
Total	24	3	27	9	14	23	0	11	11	61
08:00 AM	6	0	6	0	5	5	0	2	2	13
08:15 AM	11	0	11	1	8	9	0	2	2	22
08:30 AM	11	1	12	1	7	8	0	3	3	23
08:45 AM	7	0	7	3	8	11	0	4	4	22
Total	35	1	36	5	28	33	0	11	11	80
Grand Total	59	4	63	14	42	56	0	22	22	141
Apprch %	93.7	6.3		25	75		0	100		
Total %	41.8	2.8	44.7	9.9	29.8	39.7	0	15.6	15.6	

Start Time	SR-177 Southbound			SR-177 Northbound			Kaiser Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
08:00 AM	6	0	6	0	5	5	0	2	2	13
08:15 AM	11	0	11	1	8	9	0	2	2	22
08:30 AM	11	1	12	1	7	8	0	3	3	23
08:45 AM	7	0	7	3	8	11	0	4	4	22
Total Volume	35	1	36	5	28	33	0	11	11	80
% App. Total	97.2	2.8		15.2	84.8		0	100		
PHF	.795	.250	.750	.417	.875	.750	.000	.688	.688	.870

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 08:00 AM



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:15 AM		
+0 mins.	6	0	6	0	5	5	0	3	3
+15 mins.	11	0	11	1	8	9	0	2	2
+30 mins.	11	1	12	1	7	8	0	5	5
+45 mins.	7	0	7	3	8	11	0	2	2
Total Volume	35	1	36	5	28	33	0	12	12
% App. Total	97.2	2.8		15.2	84.8		0	100	
PHF	.795	.250	.750	.417	.875	.750	.000	.600	.600

County of Riverside
 N/S: SR-177
 E/W: Kaiser Road
 Weather: Sunny

File Name : CRV177KAPM
 Site Code : 10040001
 Start Date : 2/17/2010
 Page No : 1

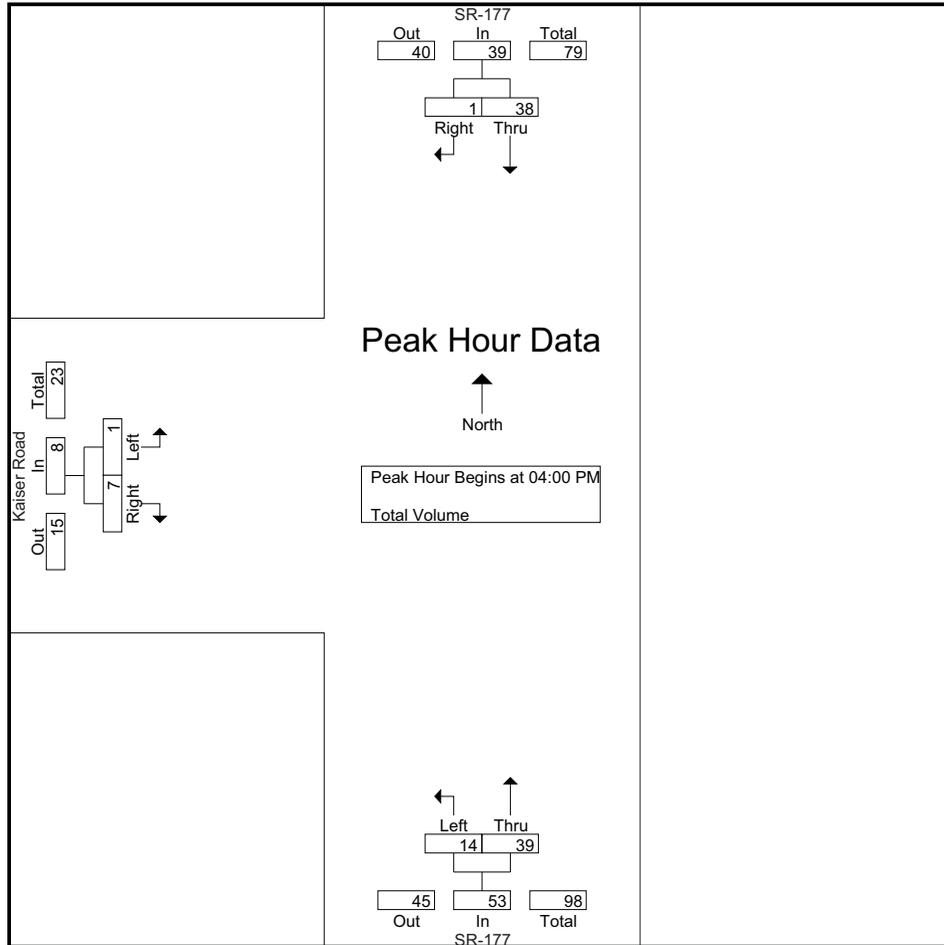
Groups Printed- Total Volume

Start Time	SR-177 Southbound			SR-177 Northbound			Kaiser Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	13	1	14	3	11	14	0	1	1	29
04:15 PM	15	0	15	5	12	17	0	3	3	35
04:30 PM	6	0	6	4	9	13	0	2	2	21
04:45 PM	4	0	4	2	7	9	1	1	2	15
Total	38	1	39	14	39	53	1	7	8	100
05:00 PM	4	0	4	4	4	8	0	1	1	13
05:15 PM	7	0	7	1	6	7	0	3	3	17
05:30 PM	4	0	4	0	8	8	0	0	0	12
05:45 PM	4	0	4	2	6	8	0	1	1	13
Total	19	0	19	7	24	31	0	5	5	55
Grand Total	57	1	58	21	63	84	1	12	13	155
Apprch %	98.3	1.7		25	75		7.7	92.3		
Total %	36.8	0.6	37.4	13.5	40.6	54.2	0.6	7.7	8.4	

Start Time	SR-177 Southbound			SR-177 Northbound			Kaiser Road Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	13	1	14	3	11	14	0	1	1	29
04:15 PM	15	0	15	5	12	17	0	3	3	35
04:30 PM	6	0	6	4	9	13	0	2	2	21
04:45 PM	4	0	4	2	7	9	1	1	2	15
Total Volume	38	1	39	14	39	53	1	7	8	100
% App. Total	97.4	2.6		26.4	73.6		12.5	87.5		
PHF	.633	.250	.650	.700	.813	.779	.250	.583	.667	.714

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	13	1	14	3	11	14	0	1	1
+15 mins.	15	0	15	5	12	17	0	3	3
+30 mins.	6	0	6	4	9	13	0	2	2
+45 mins.	4	0	4	2	7	9	1	1	2
Total Volume	38	1	39	14	39	53	1	7	8
% App. Total	97.4	2.6		26.4	73.6		12.5	87.5	
PHF	.633	.250	.650	.700	.813	.779	.250	.583	.667

Counts Unlimited, Inc.
 25286 Jaclyn Avenue
 Moreno Valley, CA 92557
 (951) 485-7934

County of Riverside
 Kaiser Road
 N/ LakeTamarisk Resort
 24 Hour Directional Classification Count
 Northbound

CRVKANLT
 Site Code: 045-10040
 Date Start: 17-Feb-10
 Date End: 17-Feb-10

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/17/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
07:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
09:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
10:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
11:00	0	2	0	0	3	0	0	0	0	0	0	0	0	5
12 PM	0	1	0	0	1	0	0	0	1	0	0	0	0	3
13:00	0	2	2	0	2	1	0	0	0	0	0	0	0	7
14:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
15:00	0	2	3	0	1	0	0	0	0	0	0	0	0	6
16:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
17:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
18:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
19:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	24	16	0	12	1	0	0	1	0	0	0	0	54
Percent	0.0%	44.4%	29.6%	0.0%	22.2%	1.9%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00		11:00									11:00
Vol.		2	2		3									5
PM Peak		14:00	15:00		13:00	13:00			12:00					13:00
Vol.		4	3		2	1			1					7
Grand Total	0	24	16	0	12	1	0	0	1	0	0	0	0	54
Percent	0.0%	44.4%	29.6%	0.0%	22.2%	1.9%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.
 25286 Jaclyn Avenue
 Moreno Valley, CA 92557
 (951) 485-7934

County of Riverside
 Kaiser Road
 N/ LakeTamarisk Resort
 24 Hour Directional Classification Count
 Southbound

CRVKANLT
 Site Code: 045-10040
 Date Start: 17-Feb-10
 Date End: 17-Feb-10

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/17/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
06:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
07:00	0	2	3	0	1	0	0	0	0	0	0	0	0	6
08:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
09:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
10:00	0	1	1	0	2	0	0	0	0	1	0	0	0	5
11:00	0	2	0	0	1	0	0	1	0	0	0	0	0	4
12 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	3
13:00	0	0	4	0	1	0	0	0	0	0	0	0	0	5
14:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
15:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
16:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
19:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	19	20	0	10	0	0	1	3	1	0	0	0	54
Percent	0.0%	35.2%	37.0%	0.0%	18.5%	0.0%	0.0%	1.9%	5.6%	1.9%	0.0%	0.0%	0.0%	
AM Peak		06:00	07:00		10:00			11:00		10:00				07:00
Vol.		2	3		2			1		1				6
PM Peak		14:00	13:00		12:00				23:00					13:00
Vol.		3	4		1				2					5
Grand Total	0	19	20	0	10	0	0	1	3	1	0	0	0	54
Percent	0.0%	35.2%	37.0%	0.0%	18.5%	0.0%	0.0%	1.9%	5.6%	1.9%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.
 25286 Jaclyn Avenue
 Moreno Valley, CA 92557
 (951) 485-7934

County of Riverside
 Kaiser Road
 N/ LakeTamarisk Resort
 24 Hour Directional Classification Count
 Northbound, Southbound

CRVKANLT
 Site Code: 045-10040
 Date Start: 17-Feb-10
 Date End: 17-Feb-10

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/17/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
06:00	0	3	4	0	2	0	0	0	0	0	0	0	0	9
07:00	0	4	4	0	2	0	0	0	0	0	0	0	0	10
08:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
09:00	0	1	4	0	1	0	0	0	0	0	0	0	0	6
10:00	0	3	2	0	3	0	0	0	0	1	0	0	0	9
11:00	0	4	0	0	4	0	0	1	0	0	0	0	0	9
12 PM	0	2	1	0	2	0	0	0	1	0	0	0	0	6
13:00	0	2	6	0	3	1	0	0	0	0	0	0	0	12
14:00	0	7	0	0	1	0	0	0	1	0	0	0	0	9
15:00	0	4	5	0	2	0	0	0	0	0	0	0	0	11
16:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
17:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
18:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
19:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	43	36	0	22	1	0	1	4	1	0	0	0	108
Percent	0.0%	39.8%	33.3%	0.0%	20.4%	0.9%	0.0%	0.9%	3.7%	0.9%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00		11:00			11:00		10:00				07:00
Vol.		4	4		4			1		1				10
PM Peak		14:00	13:00		13:00	13:00			23:00					13:00
Vol.		7	6		3	1			2					12
Grand Total	0	43	36	0	22	1	0	1	4	1	0	0	0	108
Percent	0.0%	39.8%	33.3%	0.0%	20.4%	0.9%	0.0%	0.9%	3.7%	0.9%	0.0%	0.0%	0.0%	

District	Rte	County	Pm Pre	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
8	10	RIV		44.64	MONTEREY AVENUE	4150	62000	54000	3600	54000	47000
8	10	RIV		50.45	WASHINGTON STREET	3600	54000	47000	3050	46500	40000
8	10	RIV	R	52.34	INDIO, JEFFERSON STREET/ INDIO BOULEVARD	3050	46500	40000	2400	36500	31500
8	10	RIV	R	54.74	INDIO, MONROE STREET	2400	36500	31500	2250	33500	29000
8	10	RIV	R	55.74	INDIO, JACKSON STREET	2250	33500	29000	2150	32500	28000
8	10	RIV	R	56.95	INDIO, NORTH JCT. RTE. 111, AUTO CENTER DRIVE	2150	32500	28000	1950	29500	25500
8	10	RIV	R	57.83	INDIO, JCT. RTE. 86S	1950	29500	25500	1300	19200	16600
8	10	RIV	R	58.89	COACHELLA, DILLON ROAD	1300	19200	16600	1800	20000	17200
8	10	RIV	R	61.31	MILEPOST EQUATION =R62.03						
8	10	RIV	R	72	CACTUS CITY SAFETY ROADSIDE REST AREAS						
8	10	RIV	R	81.55	COTTONWOOD SPRINGS ROAD	1600	17000	15200	1600	17000	15200
8	10	RIV	R	86.07	CHIRIACO SUMMIT	1600	17000	15200	1600	17000	15200
8	10	RIV	R	90.12	HAYFIELD ROAD	1600	17000	15200	1600	17000	15200
8	10	RIV	R	95.05	EAGLE MOUNTAIN RAILROAD OVERHEAD/RED CLOUD ROAD	1600	17000	15200	1600	17000	15200
8	10	RIV	R	102.01	EAGLE MOUNTAIN ROAD	1600	17000	15200	1600	16900	15100
8	10	RIV	R	105.1	JCT. RTE. 177 NORTH	1600	16900	15100	1450	15300	13700
8	10	RIV	R	114.4	CORN SPRINGS ROAD	1450	15300	13700	1450	15300	13700
8	10	RIV	R	129.94	FORD DRY LAKE ROAD	1450	15300	13700	1450	15300	13700
8	10	RIV	R	135.05	WILEYS WELL SAFETY ROADSIDE REST AREA, WILEY WELLS ROAD	1450	15300	13700	1550	16400	14700
8	10	RIV	R	145.12	MESA DRIVE	1550	16400	14700	1600	17000	15200

District	Route	Rte Suf	County	PM Prefix	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
8	10		RIV		46.890	COOK STREET	8700	108000	97000	8500	105000	94000
8	10		RIV		50.447	WASHINGTON STREET INTERCHANGE	8500	105000	94000	7500	93000	83000
8	10		RIV	R	52.342	JEFFERSON STREE/INDIO BOULEVARD	7500	93000	83000	6300	73000	68000
8	10		RIV	R	54.738	INDIO, MONROE STREET INTERCHANGE	6300	73000	68000	5800	66000	62000
8	10		RIV	R	55.744	INDIO, JACKSON STREET INTERCHANGE	5800	66000	62000	5300	61000	57000
8	10		RIV	R	56.946	INDIO, NORTH JCT. RTE. 111, AUTO CENTER DRIVE	5300	61000	57000	4850	56000	52000
8	10		RIV	R	57.831	INDIO, JCT. RTE. 86 SOUTH	4850	56000	52000	2350	27000	25000
8	10		RIV	R	58.890	DILLON ROAD	2350	27000	25000	2100	24100	22500
8	10		RIV	R	81.548	COTTONWOOD SPRINGS ROAD INTERCHANGE	2100	24100	22500	2950	26000	22500
8	10		RIV	R	86.073	CHIRIACO SUMMIT INTERCHANGE	2950	26000	22500	3000	26500	23000
8	10		RIV	R	90.119	HAYFIELD ROAD INTERCHANGE	3000	26500	23000	3000	26500	23000
8	10		RIV	R	95.049	EAGLE MOUNTAIN RAILROAD OVERHEAD/RED CLOUD ROAD	3000	26500	23000	3000	26500	23000
8	10		RIV	R	102.014	EAGLE MOUNTAIN ROAD INTERCHANGE	3000	26500	23000	3000	26500	23000
8	10		RIV	R	105.087	JCT. RTE. 177 NORTH	3000	26500	23000	2800	24700	21400
8	10		RIV	R	114.402	CORN SPRINGS ROAD INTERCHANGE	2800	24700	21400	2800	24700	21400
8	10		RIV	R	129.935	FORD DRY LAKE INTERCHANGE/ CHUCKAWALLA ROAD	2800	24700	21400	2800	24600	21300
8	10		RIV	R	135.049	WILEY'S WELL SAFETY ROAD SIDE REST AREA, WILEY'S WELL ROAD INTERCHANGE	2800	24600	21300	3050	27000	23500
8	10		RIV	R	145.118	MESA DRIVE INTERCHANGE	3050	27000	23500	2950	26000	22500
8	10		RIV	R	149.150	JCT. RTE. 78 SOUTH	2950	26000	22500	3100	27500	23800

official, scenic highway in accordance with the California State Scenic Highway Program.

Figure 6: Circulation

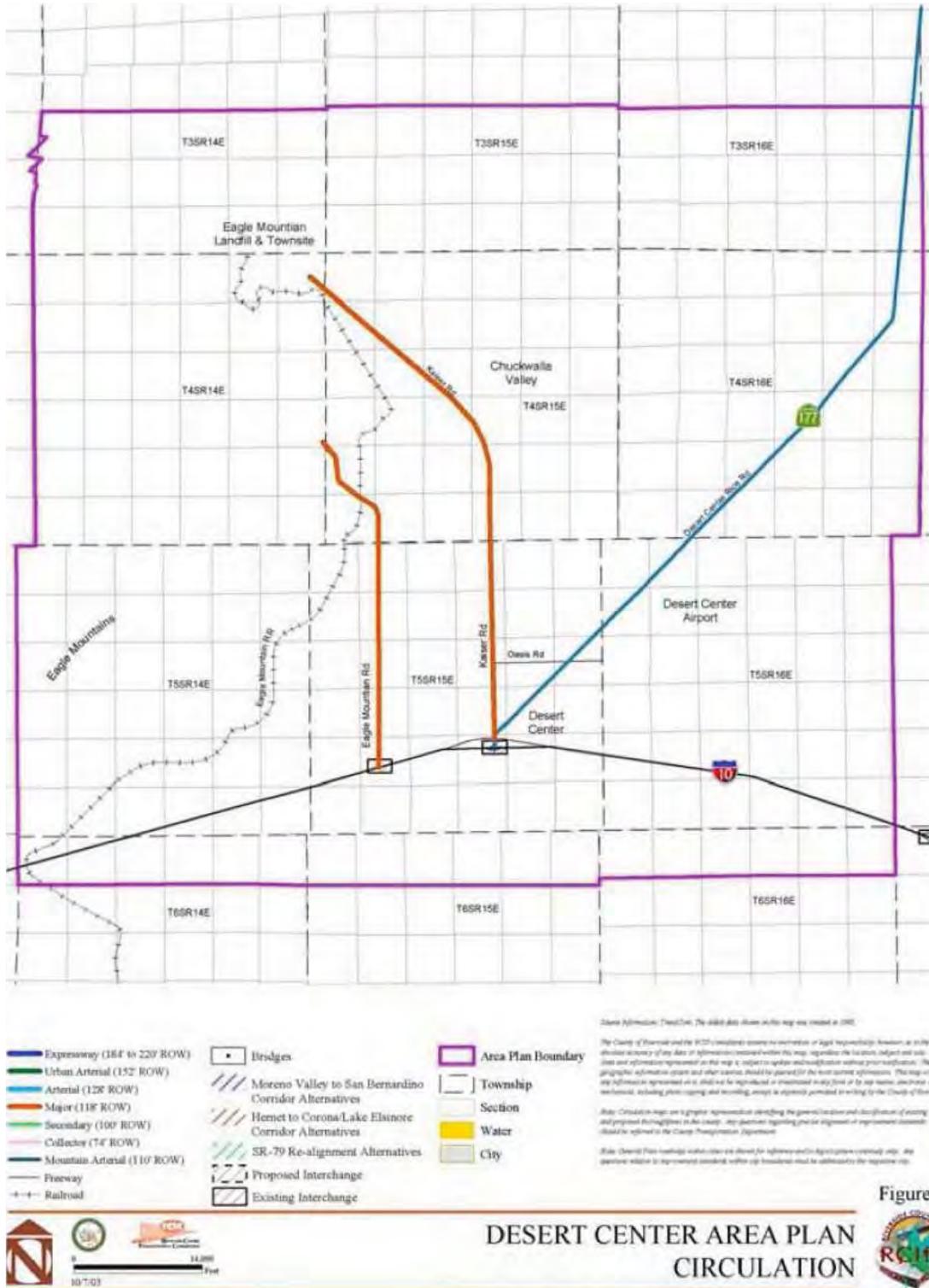


Figure 7: Trails and Bikeway System

Figure 7 Circulation
County of Riverside



**Historical City, County, and State Population Estimates, 1991-2000, with 1990 and 2000 Census Counts
Official State Estimates**

City	4/1/1990	1/1/1991	1/1/1992	1/1/1993	1/1/1994	1/1/1995	1/1/1996	1/1/1997	1/1/1998	1/1/1999	1/1/2000	4/1/2000
Riverside												
Banning	20,572	21,855	22,204	22,367	22,495	22,456	22,461	22,741	22,955	23,200	23,549	23,562
Beaumont	9,685	9,996	10,272	10,360	10,640	10,596	10,673	10,815	10,953	11,215	11,371	11,384
Blythe	8,448	8,439	11,722	12,482	12,427	15,893	17,646	20,062	20,067	19,918	20,235	20,465
Calimesa	*	6,764	6,924	6,987	7,008	6,930	6,926	6,988	7,036	7,077	7,084	7,139
Canyon Lake	*	10,292	10,434	10,357	10,246	10,094	9,989	9,927	9,890	9,929	9,978	9,952
Cathedral City	30,085	32,195	34,245	34,981	35,754	36,744	37,675	38,267	38,907	40,166	42,240	42,647
Coachella	16,896	17,393	18,007	19,017	19,291	19,819	20,551	20,899	21,164	21,503	22,180	22,724
Corona	75,943	80,913	86,850	90,985	93,232	96,099	100,146	105,743	112,148	118,493	123,757	124,966
Desert Hot Springs	11,668	12,405	13,360	14,206	14,554	15,093	15,478	15,904	16,163	16,405	16,544	16,582
Hemet	36,094	37,613	49,027	50,044	50,319	50,165	50,251	50,682	54,269	57,871	58,666	58,812
Indian Wells	2,647	2,722	2,892	2,985	3,086	3,092	3,146	3,290	3,349	3,515	3,667	3,816
Indio	36,850	38,217	40,355	41,420	42,525	42,952	43,888	45,200	46,099	47,301	48,616	49,116
Lake Elsinore	18,316	19,075	21,605	21,986	23,106	23,848	24,714	25,769	26,490	27,978	28,756	28,930
La Quinta	11,215	12,788	14,403	15,084	15,913	16,588	17,402	18,573	19,534	20,827	23,088	23,694
Moreno Valley	118,779	125,788	129,968	131,548	132,821	132,669	134,215	136,323	137,962	140,457	142,161	142,379
Murrieta	*	*	24,334	27,901	30,286	32,595	34,589	36,842	38,959	41,646	43,902	44,282
Norco	23,302	23,218	23,275	23,454	23,718	23,480	23,511	23,619	24,098	23,988	24,156	24,157
Palm Desert	23,252	23,880	25,035	26,978	28,108	34,487	35,504	36,767	37,815	39,424	40,957	41,155
Palm Springs	40,144	40,402	41,123	41,543	41,465	41,058	41,341	41,715	42,055	42,392	42,748	42,805
Perris	21,500	24,241	27,556	29,456	31,113	32,131	32,723	33,149	34,019	35,015	36,063	36,189
Rancho Mirage	9,778	10,040	10,527	10,773	10,995	11,078	11,298	11,643	12,015	12,559	13,160	13,249
Riverside	226,546	227,496	233,555	236,452	238,112	239,066	240,629	243,352	246,469	250,385	254,212	255,166
San Jacinto	16,210	17,492	20,093	21,106	22,555	22,296	22,392	22,582	22,737	22,970	23,466	23,779
Temecula	27,099	27,416	31,622	34,137	36,953	40,775	43,601	46,091	48,817	51,568	56,607	57,716
Balance Of County	385,384	390,617	366,096	375,732	383,492	385,452	391,095	393,630	397,401	404,672	417,962	420,721

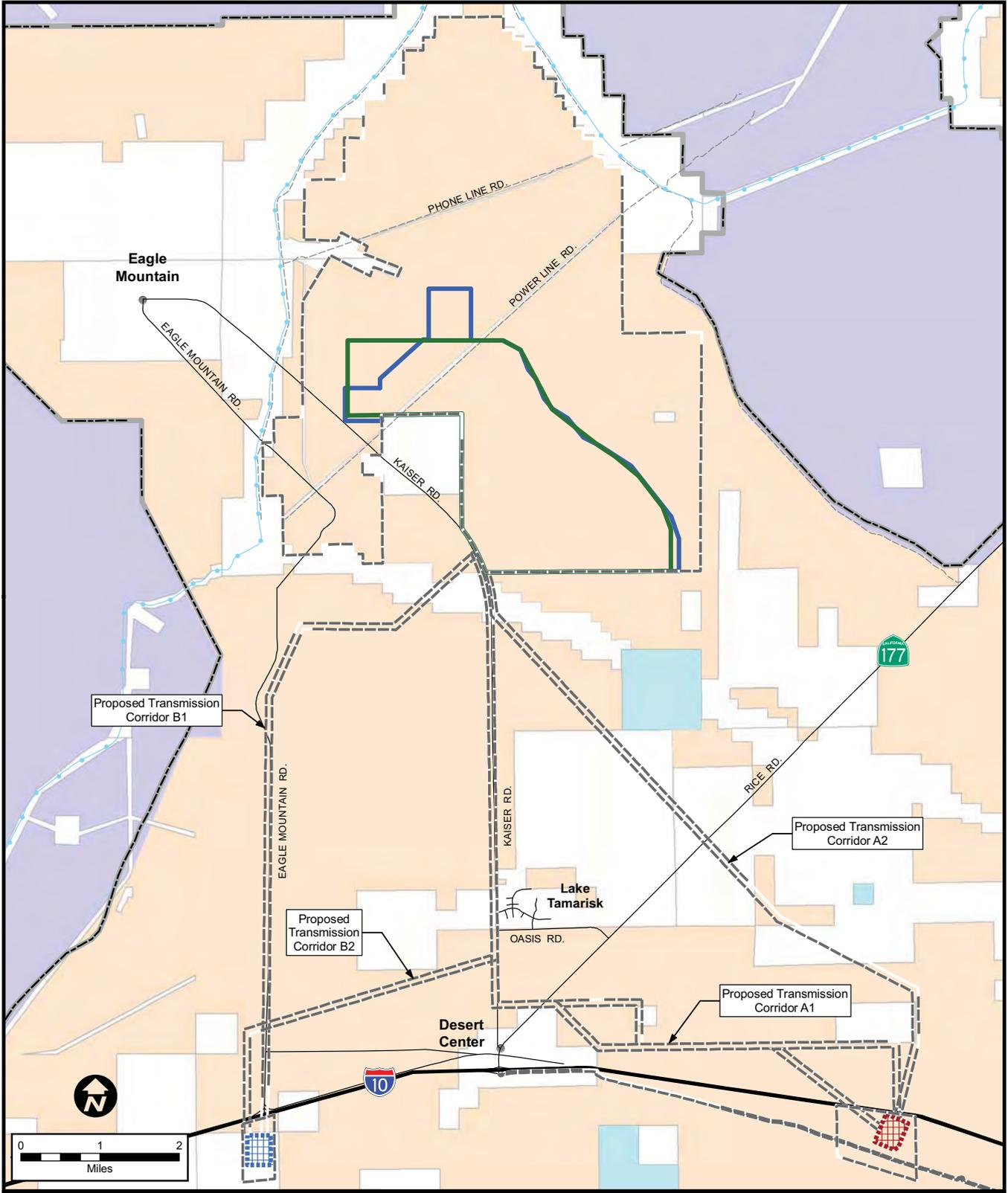
with 2000 Benchmark

COUNTY/CITY	4/1/2000	1/1/2001	1/1/2002	1/1/2003	1/1/2004	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
Riverside County										
Banning	23,562	23,958	24,586	25,606	27,549	27,996	28,185	28,174	28,148	28,457
Beaumont	11,384	11,555	12,269	13,941	16,593	19,951	26,638	28,209	31,317	32,403
Blythe	20,465	20,831	21,292	21,362	22,168	22,052	22,234	22,608	21,627	21,329
Calimesa	7,139	7,238	7,339	7,447	7,490	7,491	7,475	7,435	7,423	7,498
Canyon Lake	9,952	10,158	10,401	10,634	10,822	10,950	10,983	10,955	10,994	11,128
Cathedral City	42,647	44,085	45,659	47,841	49,338	50,819	51,294	52,045	51,972	52,447
Coachella	22,724	23,356	24,412	27,086	28,082	30,879	35,354	38,437	40,317	41,000
Corona	124,966	129,720	134,683	138,604	143,939	144,600	145,265	145,847	146,698	148,597
Desert Hot Springs	16,582	16,771	16,976	17,380	19,329	20,820	23,459	24,856	25,939	26,552
Hemet	58,812	60,570	62,388	63,566	65,552	67,565	70,728	72,537	73,205	74,361
Indian Wells	3,816	4,147	4,371	4,446	4,501	4,796	4,885	4,934	5,000	5,093
Indio	49,116	50,435	52,463	55,078	60,035	66,358	71,949	77,046	80,962	82,230
Lake Elsinore	28,930	30,027	31,223	33,421	35,904	38,185	41,156	47,568	49,556	50,267
La Quinta	23,694	26,081	28,869	30,808	33,026	36,278	38,500	41,039	42,743	43,778
Menifee	0	0	0	0	0	0	0	0	0	67,705
Moreno Valley	142,379	144,316	147,216	151,674	157,496	165,935	175,294	180,228	182,945	186,301
Murrieta	44,282	46,437	51,905	68,391	78,783	85,328	93,221	97,031	99,576	100,714
Norco	24,157	24,485	25,007	25,485	25,810	26,783	27,355	27,329	27,143	27,160
Palm Desert	41,155	42,074	43,092	44,427	45,503	49,490	49,774	49,717	50,686	51,509
Palm Springs	42,805	43,396	43,944	44,502	44,935	45,877	46,629	46,796	47,019	47,601
Perris	36,189	36,905	37,710	38,645	41,951	44,758	47,335	50,597	53,340	54,323
Rancho Mirage	13,249	13,841	14,420	15,135	15,752	16,476	16,740	16,923	16,975	17,180
Riverside	255,166	262,159	270,781	277,150	281,173	286,563	288,984	291,812	296,191	300,430
San Jacinto	23,779	24,612	25,424	26,343	27,134	28,540	31,194	34,297	35,491	36,477
Temecula	57,716	61,766	73,086	75,873	78,640	81,681	93,673	97,141	99,873	102,604
Wildomar	0	0	0	0	0	0	0	0	0	31,321
Balance Of County	420,721	431,199	443,292	459,484	482,612	504,464	517,110	536,754	553,461	459,188
Incorporated	1,124,666	1,158,923	1,209,516	1,264,845	1,321,505	1,379,271	1,444,904	1,493,561	1,525,140	1,648,465
County Total	1,545,387	1,590,122	1,652,808	1,724,329	1,804,117	1,883,735	1,962,014	2,030,315	2,078,601	2,107,653

Table 2: E-4 Population Estimates for Cities, Counties and State, 2001-2009

Appendix B Land Use

- Ownership Map (Tetra Tech)
- Zoning Map (Tetra Tech)
- Existing Land Use Map (Tetra Tech)
- County of Riverside General Plan



LEGEND

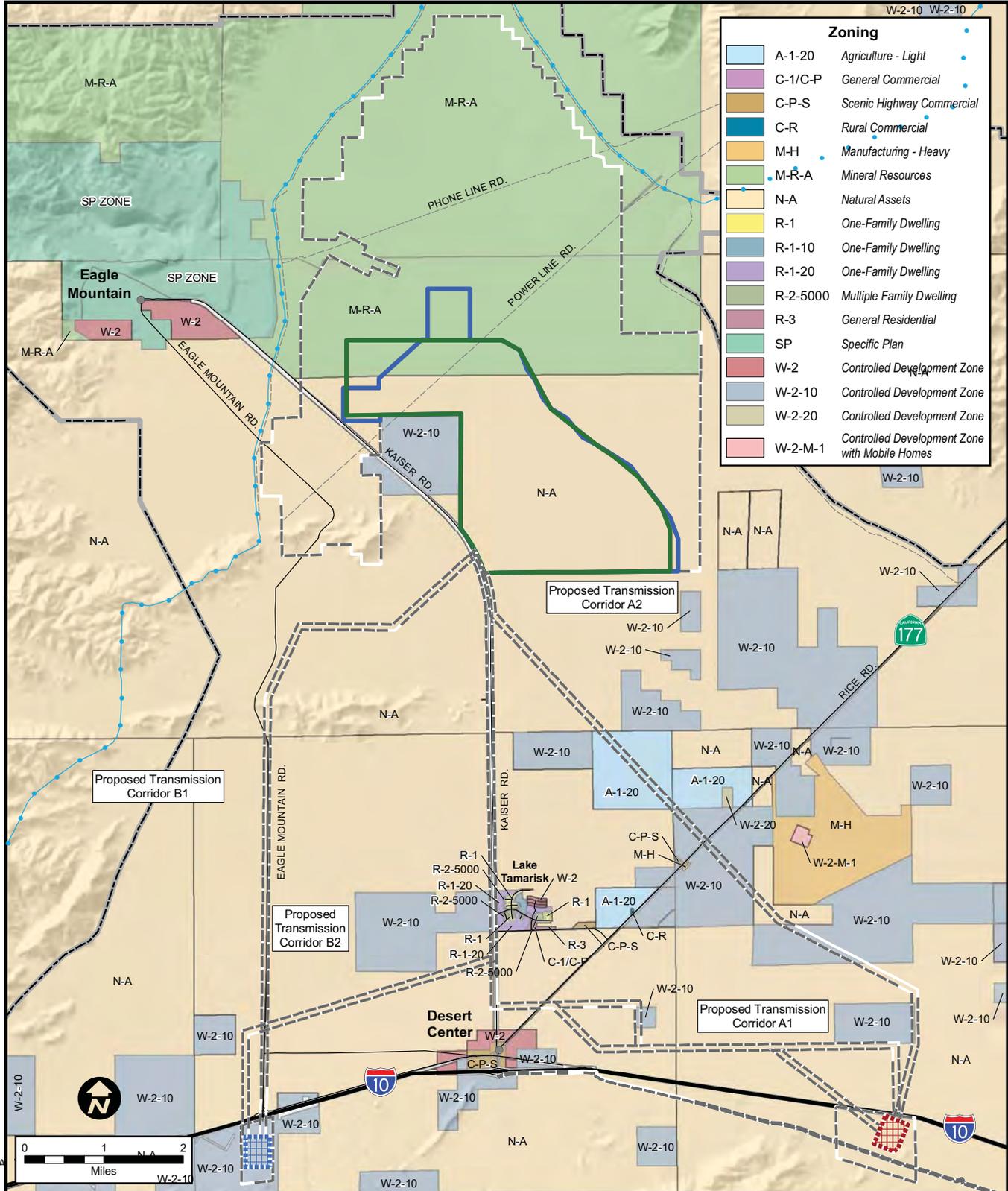
- | | | |
|------------------------------------|-------------------------------------|--------------------------------------|
| Land Ownership / Management | Desert Sunlight Study Area Boundary | Red Bluff Substation (Alternative A) |
| Bureau of Land Management | Solar Farm Boundary (Alternative A) | Red Bluff Substation (Alternative B) |
| National Park Service | Solar Farm Boundary (Alternative B) | Aqueduct |
| State | | |
| Private/Unclassified | | |

Source: BLM, May 2009.



DESERT SUNLIGHT SOLAR FARM

**Figure 3.10-2
Ownership**



Zoning	
	A-1-20 Agriculture - Light
	C-1/C-P General Commercial
	C-P-S Scenic Highway Commercial
	C-R Rural Commercial
	M-H Manufacturing - Heavy
	M-R-A Mineral Resources
	N-A Natural Assets
	R-1 One-Family Dwelling
	R-1-10 One-Family Dwelling
	R-1-20 One-Family Dwelling
	R-2-5000 Multiple Family Dwelling
	R-3 General Residential
	SP Specific Plan
	W-2 Controlled Development Zone
	W-2-10 Controlled Development Zone
	W-2-20 Controlled Development Zone
	W-2-M-1 Controlled Development Zone with Mobile Homes

LEGEND

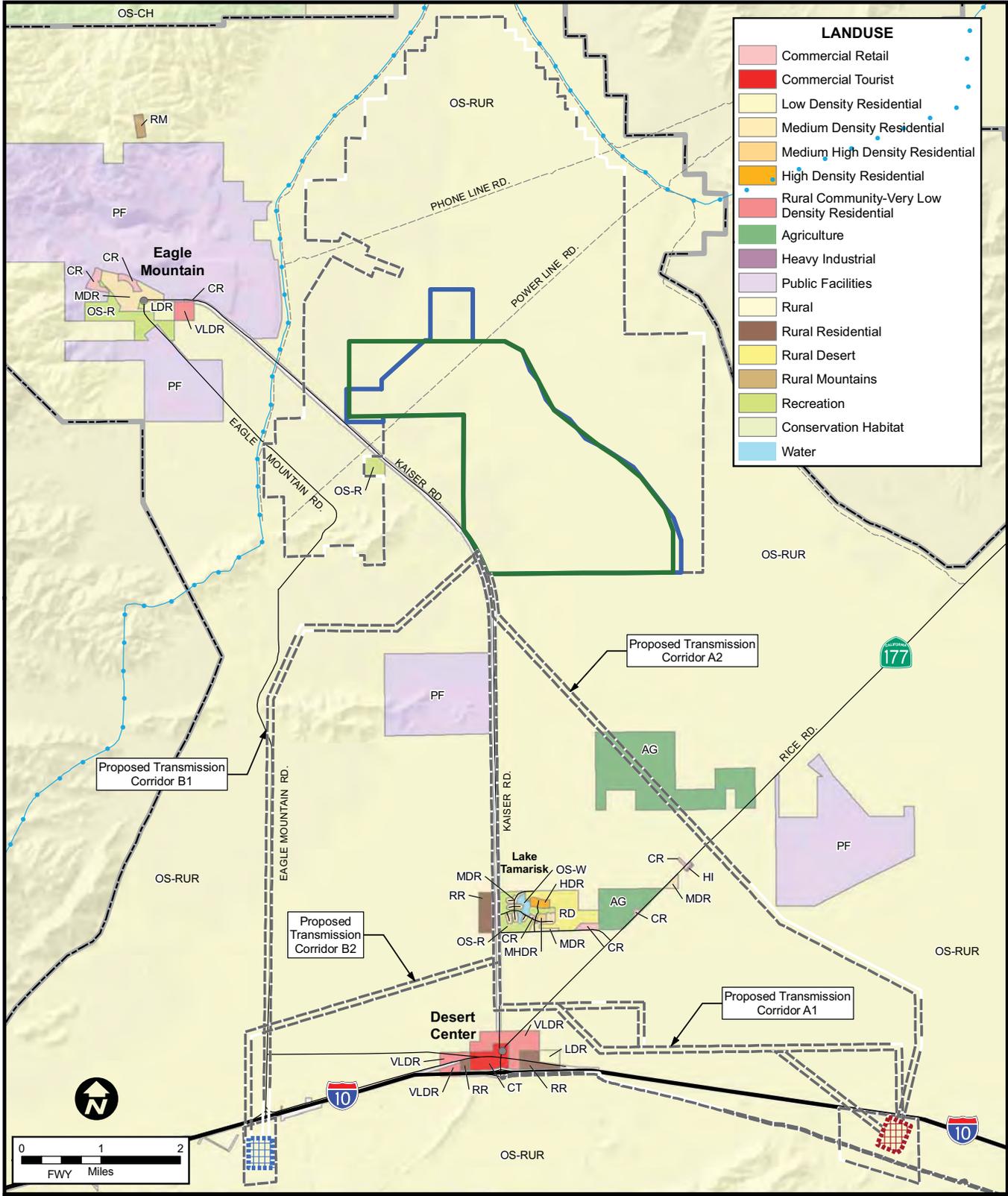
- Aqueduct
- Desert Sunlight Study Area Boundary
- Solar Farm Boundary (Alternative A)
- Solar Farm Boundary (Alternative B)
- Red Bluff Substation (Alternative A)
- Red Bluff Substation (Alternative B)
- Joshua Tree National Park Boundary

Source: Riverside County Integrated Plan, 2003.

DESERT SUNLIGHT SOLAR FARM

Figure 3.10-1
Zoning





LANDUSE	
[Pink]	Commercial Retail
[Red]	Commercial Tourist
[Light Yellow]	Low Density Residential
[Yellow]	Medium Density Residential
[Orange]	Medium High Density Residential
[Dark Orange]	High Density Residential
[Light Red]	Rural Community-Very Low Density Residential
[Green]	Agriculture
[Purple]	Heavy Industrial
[Light Purple]	Public Facilities
[White]	Rural
[Brown]	Rural Residential
[Yellow-Green]	Rural Desert
[Light Green]	Rural Mountains
[Light Green]	Recreation
[Light Green]	Conservation Habitat
[Blue]	Water

LEGEND

- Aqueduct
- Desert Sunlight Study Area Boundary
- Solar Farm Boundary (Alternative A)
- Solar Farm Boundary (Alternative B)
- Red Bluff Substation (Alternative A)
- Red Bluff Substation (Alternative B)
- Joshua Tree National Park Boundary

Source: Riverside County Integrated Plan, 2003.



DESERT SUNLIGHT SOLAR FARM

Figure 3.10-1
Existing Land Use



GENERAL PLAN FOUNDATION COMPONENTS AND LAND USE DESIGNATIONS

<p>COMMUNITY DEVELOPMENT</p> <ul style="list-style-type: none"> □ Estate Residential (2 to 40 ac) □ Very Low Density Residential (1 to 40 ac) □ Low Density Residential (5 to 7 ac) □ Medium Density Residential (2 to 7 duplex) □ Medium High Density Residential (1.5 to 4 ac) □ High Density Residential (0.5 to 4 ac) □ Very High Density Residential (1.5 to 20 ac) □ Highest Density Residential (20+ ac) ■ Commercial Retail ■ Commercial Transit ■ Commercial Office ■ Community Center 	<p>COMMUNITY DEVELOPMENT (CONT)</p> <ul style="list-style-type: none"> □ Light Industrial □ High Industrial □ Business Park □ Public Facilities □ Mixed Use Planning Area <p>RURAL COMMUNITY</p> <ul style="list-style-type: none"> □ Estate Residential (2 to 40 ac) □ Very Low Density Residential (1 to 40 ac) □ Low Density Residential (5 to 7 ac) 	<p>RURAL</p> <ul style="list-style-type: none"> □ Rural Residential (7 to 40 ac) □ Rural Medium-Density (20 to 40 ac) □ Rural Desert (10 to 40 ac) <p>AGRICULTURE</p> <ul style="list-style-type: none"> □ Agriculture <p>OPEN SPACE</p> <ul style="list-style-type: none"> □ Conservation □ Conservation - Habitat □ Open Space - Recreation □ Open Space - Rural □ Open Space - Water □ Open Space - Mixed Business 	<p>OVERLAYS</p> <ul style="list-style-type: none"> □ Business Park □ Community Center □ Commercial Retail □ Rural Village and Rural Village Study Area □ Waterways □ Other □ Areas Subject to Indian Relocation □ Area Plan Boundaries □ MVD Facilities
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External Information: General Plan land use designations on this map were developed by the County of Riverside Planning Department. The latest data dates to the map reissued in 2009. This map may show designations on land that have been acquired or revised after 2009. The County of Riverside in the 4-000+ residents have no intention to believe that this map contains any warranties, defects or inaccuracies. The County of Riverside and the RCPD do not intend to provide any representation of legal responsibility, however, as to the accuracy or validity of any data or information contained within this map, regardless of the location, design or date. Data and information represented on this map is subject to update and availability without prior notification. The geographic information system and other sources should be queried for the most current information. This map or any information represented on it shall not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photo copying and recording, except as expressly permitted in writing by the County of Riverside.

Figure 3



**DESERT CENTER AREA PLAN
LAND USE PLAN**



Table 1 Land Use Designations Summary			
Foundation Component	Area Plan Land Use Designation	Building Intensity Range (du/ac)	Notes

Appendix C Project Trips

- Construction Schedule
- Construction Workers Schedule
- Cumulative Project Table
- Cumulative Project Figure

Table 1A. Renewable Energy Projects in the California Desert District

BLM Field Office	Number of Projects & Acres	Total MW
Solar Energy		
Barstow Field Office	<ul style="list-style-type: none"> • 18 projects • 132,560 acres 	• 12,875 MW
El Centro Field Office	<ul style="list-style-type: none"> • 7 projects • 50,707 acres 	• 3,950 MW
Needles Field Office	<ul style="list-style-type: none"> • 17 projects • 230,480 acres 	• 15,700 MW
Palm Springs Field Office	<ul style="list-style-type: none"> • 17 projects • 123,592 acres 	• 11,873 MW
Ridgecrest Field Office	<ul style="list-style-type: none"> • 4 projects • 30,543 acres 	• 2,835 MW
TOTAL – CA Desert District	<ul style="list-style-type: none"> • 63 projects • 567,882 acres 	• 47,233 MW
Wind Energy		
Barstow Field Office	<ul style="list-style-type: none"> • 25 projects • 171,560 acres 	• n/a
El Centro Field Office	<ul style="list-style-type: none"> • 9 projects (acreage not given for 3 of the projects) • 48,001 acres 	• n/a
Needles Field Office	<ul style="list-style-type: none"> • 8 projects • 115,233 acres 	• n/a
Palm Springs Field Office	<ul style="list-style-type: none"> • 4 projects • 5,851 acres 	• n/a
Ridgecrest Field Office	<ul style="list-style-type: none"> • 16 projects • 123,379 acres 	• n/a
TOTAL – CA Desert District	<ul style="list-style-type: none"> • 62 projects • 433,721 acres 	• n/a

Source: Renewable Energy Projects in the California Desert Conservation Area identifies solar and wind renewable projects as listed on the BLM California Desert District Alternative Energy Website (BLM 2009)

Table 1B. Renewable Energy Projects on State and Private Lands*

Project Name	Location	Status
Solar Projects		
Solargen Panoche Valley Solar Farm (400 MW Solar PV)	San Benito County	EIR in progress
Maricopa Sun Solar Complex (350 MW Solar PV)	Kern County	Information not available
Panoche Ranch Solar Farm (250 MW Solar PV)	Kern County	Information not available
Gray Butte Solar PV (150 MW Solar PV)	Los Angeles County	Information not available
Monte Vista (126 MW Solar PV)	Kern County	Information not available
San Joaquin Solar 1 and 2 (107 MW Solar hybrid)	Fresno	Under environmental review
NRG Alpine Suntower (40 MW solar PV and 46 MW solar thermal)	Los Angeles	Information not available
Palmdale Hybrid Power Project Unit 1 (50 MW solar thermal, part of a hybrid project)	City of Palmdale	Under environmental review
Lucerne Valley Solar (50 MW solar PV)	San Bernardino	Under environmental review
Lost Hills (32.5 solar PV)	Kern County	Information not available
Tehachapi Photovoltaic Project (20 MW solar PV)	Kern County	Information not available
Sun City Project Phase 1 (20 MW solar PV)	Kings County	Information not available
Boulevard Associates (20 MW solar PV)	San Bernardino County	Information not available
Stanislaus Solar Project I (20 MW solar PV)	Stanislaus County	Information not available
Stanislaus Solar Project II (20 MW solar PV)	Stanislaus County	Information not available
Synapse Solar 2 (20 MW solar PV/solar thermal)	Kings	Information not available
T, squared, Inc. (19 MW solar PV)	Kern County	Information not available
Rancho Seco Solar Thermal (15-17 MW solar trough)	Sacramento County	Information not available
Global Real Estate Investment Partners, LLC (solar PV)	Kern County	Information not available
Recurrent Energy (solar PV)	Kern County	Information not available
Man-Wei Solar (solar PV)	Kern County	Information not available
Regenesis Power for Kern County Airports Dept.	Kern County	Information not available
Abengoa Mojave Solar Project (250 MW solar thermal)	San Bernardino County, Harper Lake	Under environmental review
Rice Solar Energy Project (150 MW solar thermal)	Riverside County, north of Blythe	Under environmental review
3 MW solar PV energy generating facility	San Bernardino County, Newberry Springs	MND published for public review
Blythe Airport Solar 1 Project (100 MW solar PV)	Blythe, California	MND published for public review
First Solar's Blythe (21 MW solar PV)	Blythe, California	Under construction

B.3 Cumulative Scenario
Genesis Solar Energy Project

Project Name	Location	Status
California Valley Solar Ranch (SunPower) (250 MW solar PV)	Carrizo Valley, San Luis Obispo County	Under environmental review
LADWP and OptiSolar Power Plant (68 MW solar PV)	Imperial County, SR 111	Under environmental review
Topaz Solar Farm (First Solar) (550 MW solar PV)	Carrizo Valley, San Luis Obispo County	Under environmental review
AV Solar Ranch One (230 MW solar PV)	Antelope Valley, Los Angeles County	Under environmental review
Bethel Solar Hybrid Power Plant (49.4 MW hybrid solar thermal and biomass)	Seeley, Imperial County	Under environmental review
Mt. Signal Solar Power Station (49.4 MW hybrid solar thermal and biomass)	8 miles southwest of El Centro, Imperial County	Under environmental review
Wind Projects		
Alta-Oak Creek Mojave Project (up to 800 MW)	Kern County, west of Mojave	Under environmental review
PdV Wind Energy Project (up to 300 MW)	Kern County, Tehachapi Mountains	Approved
City of Vernon Wind Energy Project (300 MW)	City of Vernon	Information not available
Manzana Wind Project (246 MW)	Kern County	Information not available
Iberdrola Tule Wind (200 MW)	San Diego County, McCain Valley	EIR/EIS in progress
Padoma Wind Energy (175 MW)	Shasta County	Information not available
Pine Canyon (150 MW)	Kern County	Information not available
Shiloh III (200 MW)	Montezuma Hills, Solano County	Information not available
AES Daggett Ridge (84 MW)	San Bernardino	EIS in progress
Granite Wind, LLC (81 MW)	San Bernardino	EIR/EIS in progress
Bear River Ridge (70 MW)	Humboldt County	Information not available
Aero Tehachapi (65 MW)	Kern County	Information not available
Montezuma Wind II (52-60)	Montezuma Hills, Solano County	Information not available
Tres Vaqueros (42 MW wind repower)	Contra Costa County	Information not available
Montezuma Hills Wind Project (34-37 MW)	Solano County	Information not available
Solano Wind Project Phase 3 (up to 128 MW)	Montezuma Hills, Solano County	Under environmental review
Hatchet Ridge Wind Project	Shasta County, Burney	Under construction
Lompoc Wind Energy Project	Lompoc, Santa Barbara County	Approved
Pacific Wind (Iberdrola)	McCain Valley, San Diego County	Under environmental review
TelStar Energies, LLC (300 MW)	Ocotillo Wells, Imperial County	Under environmental review

Project Name	Location	Status
Geothermal Projects		
Buckeye Development Project	Geyserville, Sonoma	Under environmental review
Orni 18, LLC Geothermal Power Plant (49.9 MW)	Brawley, Imperial County	Information not available
Black Rock Geothermal 1,2,and 3	Imperial County	Information not available

* This list is compiled from the projects on CEQAnet as of November 2009 and the projects located on private or State lands that are listed on the Energy Commission Renewable Action Team website as requesting ARRA funding. Additional renewable projects proposed on private and State lands but not requesting ARRA funds are listed on the website.

Source: CEQAnet [<http://www.ceqanet.ca.gov/ProjectList.asp>], November 2009 and CEC Renewable Action Team – Generation Tracking for ARRA Projects 12/29/2009 [http://www.energy.ca.gov/33by2020/documents/2009-12-29/2009-12-29_Proposed_ARRA_Renewable_Projects.pdf]

Table 2. Existing Projects along the I-10 Corridor (Eastern Riverside County)

Project ID #	Project Name; Agency ID	Location	Ownership	Status	Acres	Project Description
1	Interstate 10	Linear project running from Santa Monica to Blythe (in California)	Caltrans	Existing	N/A	Interstate 10 (I-10) is a major east-west route for trucks delivering goods to and from California. It is a four lane divided highway in the Blythe region.
2	Chuckwalla Valley State Prison	19025 Wiley's Well Rd. Blythe, CA	CA Dept. of Corrections & Rehabilitation	Existing	1,080	State prison providing long-term housing and services for male felons classified as medium and low-medium custody inmates jointly located on 1,720 acres of State-owned property. APN 879040006,008, 012, 027, 028, 029, 030,
3	Ironwood State Prison	19005 Wiley's Well Rd. Blythe, CA	CA Dept. of Corrections & Rehabilitation	Existing	640	ISP jointly occupies with Chuckwalla Valley State Prison 1,720 acres of State-owned property, of which ISP encompasses 640 acres. The prison complex occupies approximately 350 acres with the remaining acreage used for erosion control, drainage ditches, and catch basins. 879040001, 004, 009, 010, 011, 015, 016, 017, 018, 019, 020
4	Devers-Palo Verde Transmission Line	From the Midpoint Substation to Devers Substation	SCE	Existing	N/A	Existing 500 kV transmission line parallel to I-10 from Midpoint Substation, approximately 10 miles southwest of Blythe, to the SCE Devers Substation, near Palm Springs.
5	Blythe Energy Project	City of Blythe, north of I-10, 7 miles west of the CA/AZ border	Blythe Energy, LLC	Existing	76	520 MW combined-cycle natural gas-fired electric-generating facility. Project is connected to the Buck Substation owned by WAPA.
6	West-wide Section 368 Energy Corridors	Riverside County, parallel to DPV corridor	BLM, DOE, U.S. Forest Service	Approved by BLM and U.S. Forest Service	N/A	Designation of corridors on federal land in the 11 western states, including California, for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities (energy corridors). One of the corridors runs along the southern portion of Riverside County.
7	Eagle Mountain Pumping Plant	Eagle Mountain Road, west of Desert Center	Metropolitan Water District of Southern California	Existing		144 ft. pumping plant that is part of the Metropolitan Water District of Southern California's facilities. APNs 807150007, 807150009, 807150010
8	Recreational Opportunities	Eastern Riverside County	BLM	Existing	N/A	BLM has numerous recreational opportunities on lands in eastern Riverside County along the I-10 corridor including the Wiley's Well Campground, Coon Hollow Campground, and Midland Long-Term Visitor Area.
9	Kaiser Mine	Eagle Mountain, north of Desert Center	Kaiser Ventures, Inc.	Mining activities stopped in 1983.		Kaiser Steel mined iron ore at Kaiser Mine in Eagle Mountain and provided much of the Pacific Coast steel in the 1950s. Mining project also included the Eagle Mountain Railroad, 51 miles long. Imported steel captured market share in the 1960s and 1970s and primary steelmaking closed in the 1980s. 701380031

Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
A Four Commercial Projects	Blythe, CA	Various	Approved	N/A	Four commercial projects have been approved by the Blythe Planning Department including the Agate Road Boat & RV Storage, Riverway Ranch Specific Plan, Subway Restaurant and Motel, and Agate Senior Housing Development.
B Intake Shell	Blythe, CA		Under Construction	N/A	Reconstruction of a Shell facility located at Intake & Hobsonway. Demolition occurred in 2008, reconstruction planned for 2009-2010.
C Fifteen Residential Developments	Blythe, CA	Various	Approved/Under Construction	N/A	Twelve residential development projects have been approved by the Blythe Planning Department including: Vista Palo Verde (83 Single Family Residential [SFR]), Van Weelden (184 SFR), Sonora South (43 SFR), Ranchette Estates (20 SFR), Irvine Assets (107 SFR), Chanslor Village (79 SFR), St. Joseph's Investments (69 SFR), Edgewater Lane (SFR), The Chanslor Place Phase IV (57 SFR), Cottonwood Meadows (103 Attached SFR), Palo Verde Oasis Phase IV (29 SFR). Three residential development projects have been approved and are under construction including: The Chanslor Phase II & III (78 SFR), River Estate at Hidden Beaches, Mesa Bluffs Villas (26 Attached SFR).
D Devers-Palo Verde 2 Transmission Line Project	From the Midpoint Substation to Devers Substation	SCE	Project was approved by CPUC 11/2009.	N/A	New 500 kV transmission line parallel to the existing Devers-Palo Verde Transmission Line from Midpoint Substation, approximately 10 miles southwest of Blythe, to the SCE Devers Substation, near Palm Springs. The ROW for the 500 kV transmission line would be adjacent to the existing DPV ROW and would require an additional 130 feet of ROW on federal and State land and at least 130 feet of ROW on private land and Indian Reservation land.
E Colorado Substation	10 miles southwest of Barstow	SCE	Project was approved by CPUC 11/2009.	44	The new 500/230 kV substation would be constructed within a rectangular area approximately 1,000 feet by 1,900 feet, resulting in approximately 44 acres permanently disturbed. The 500 kV switching station would include buses, circuit breakers, and disconnect switches. The switchyard would be equipped with 108-foot-high dead-end structures. Outdoor night lighting would be designed to illuminate the switchrack when manually switched on.
F Blythe Energy Project Transmission Line	From the Blythe Energy Project (Blythe, CA) to Devers Substation	Blythe Energy, LLC	Under construction	N/A	Transmission Line Modifications including upgrades to Buck Substation, approximately 67.4 miles of new 230 kV transmission line between Buck Substation and Julian Hinds Substation, upgrades to the Julian Hinds Substation, installation of 6.7 miles of new 230 kV transmission line between Buck Substation and SCE's DPV 500 kV transmission line.

Table 3. Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)

Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
G Desert Southwest Transmission Line	118 miles primarily parallel to DPV	Imperial Irrigation District	Final EIR prepared 2005. Approved by the BLM in 2006.	N/A	New, approximately 118-mile 500 kV transmission line from a new substation/switching station near the Blythe Energy Project to the existing Devers Substation located approximately 10 miles north of Palm Springs, California.
H Green Energy Express Transmission Line Project	70-mile transmission line from the Eagle Mountain Substation to southern California	Green Energy Express LLC	September 9, 2009, Green Energy Express LLC filed a Petition for Declaratory Order requesting that FERC approve certain rate incentives for the project	N/A	70-mile double-circuit 500 kV transmission line and new 500/230 kV substation from near the Eagle Mountain Substation (eastern Riverside County) to Southern California
I Blythe Energy Project II	Blythe, CA. Near the Blythe Airport and I-10	Blythe Energy, LLC	Approved December 2005	30 acres (located on Blythe Energy Project land)	520 MW combined-cycle power plant located entirely within the Blythe Energy Project site boundary. Blythe Energy Project II will interconnect with the Buck Substation constructed by WAPA as part of the Blythe Energy Project. Project is designed on 30 acres of a 76-acre site.
J Eagle Mountain Pumped Storage Project	Eagle Mountain iron ore mine, north of Desert Center	Eagle Crest Energy Company	License application filed with FERC in June 2009	1,524	1,300 MW pumped storage project designed to store off-peak energy to utilize during on-peak hours. The captured off-peak energy will be used to pump water to an upper reservoir where the energy will be stored. The water will then be released to a lower reservoir through an underground electrical generating facility where the stored energy will be released back into the Southwestern grid during “high demand peak” times, primarily weekdays. Estimated water use is 8,100 AFY for the first four-year start-up period and replacement water is 1,763 AFY thereafter. 1
K Genesis Solar Energy Project	North of I-10, 10 miles east of Desert Center	Solar Millennium LLC/Chevron Energy	Undergoing environmental review, construction to begin end of 2010 with one unit online in 2012 and one unit online in 2013.	5,200	500 MW solar trough project on 5,200 acres. Facility would consist of two 250 MW plants. Approximately 3,870 acres would be disturbed. Project would include interconnection to the SCE Red Bluff Substation. Project would use 300 AFY.
L Blythe Solar Power Project	North of I-10, immediately north of the Blythe Airport	Solar Millennium LLC/Chevron Energy	Undergoing environmental review	9,400	1,000 MW solar trough facility on 9,400 acres

Table 3. Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)

Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
M NextEra (FPL) McCoy	Northwest of Blythe, CA, immediately north of Blythe Solar Power Project	NextEra (FPL)	Plan of Development in to Palm Springs BLM	20,608	250 MW solar trough project. ROW in process for monitoring water well drilling.
N McCoy Soleil Project	10 miles northwest of Blythe	enXco	Plan of Development in to Palm Springs BLM	1,959	300 MW solar power tower project located on 1,959 acres. Project would require a 14 mile transmission line to proposed SCE Colorado Substation south of I-10. Would use 575-600 AFY.
O Genesis Solar Energy Project	North of I-10, 25 miles west of Blythe and 27 miles east of Desert Center	NextEra (FPL)	Undergoing environmental review. Construction to begin at the end of 2010.		250 MW solar trough project located on 4,640 acres north of the Ford Dry Lake. Project includes six mile natural gas pipeline and a 5.5 mile gen-tie line to the Blythe Energy Center to Julian Hinds Transmission Line, then travel east on shared transmission poles to the Colorado River Substation.
P Big Maria Vista Solar Project	North of I-10, approximately 12 miles northwest of Blythe	Bullfrog Green Energy	Plan of Development submitted to BLM	2,684	500 MW solar photovoltaic project on 2,684 acres of land. Project would be built in three phases and would require 6,000 gallons of water monthly.
O Chuckwalla Solar I	1 mile north of Desert Center	Chuckwalla Solar I, LLC	Plan of Development submitted to BLM	4,083	200 MW solar photovoltaic project on 4,083 acres of land. Project would be developed in several phases and would tap into an existing SCE 161-kV transmission line crossing the site.
R Rice Solar Energy Project	Rice Valley, Eastern Riverside County	Rice Solar Energy, LLC (SolarReserve, LLC)	Undergoing environmental review. Construction to begin in 2011	1,410	150 MW solar power tower project with liquid salt storage. Project is located on approximately 1,410 acres and includes a power tower approximately 650 feet tall and a 10-mile long interconnection with the WAPA Parker-Blythe transmission line.
S Blythe Airport Solar I Project	Blythe Airport	U.S. Solar	Application has been submitted to City of Blythe, City of Blythe approved the project in November, 2009	640	100 MW solar photovoltaic project located on 640 acres of Blythe airport land.
T Blythe PV Project	Blythe	First Solar	CPUC approved project terms of a 20 year power purchase agreement for sale of 7.5 MW, Under construction in forth quarter, 2009	200	7.5 MW solar photovoltaic project located on 200 acres. Project was constructed by First Solar and sold to NRG Energy.

Table 3. Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)

Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
U Desert Quartzite	South of I-10, 8 miles southwest of Blythe	First Solar (previously OptiSolar)	POD in to BLM	7,724	600 MW solar photovoltaic project located on 7,724 acres. Adjacent to DPV transmission line and SCE Colorado Substation. Approximately 27 AF would be used during construction and 3.8 AFY during operation.
V Desert Sunlight	North of Desert Center	First Solar (previously OptiSolar)	POD in to BLM	5,000-6,000	250 MW solar photovoltaic project located on 5,000-6,000 acres. Project would tie into the SCE Red Bluff Substation. Approximately 27 AF would be used during construction and 3.8 AFY during operation.
W EnXco	North of Wileys Well Road, east of Genesis Solar Energy Project	enXco	POD in to BLM		300 MW solar photovoltaic project location on X acres.
X Desert Lily Soleil Project	6 miles north of Desert Center	enXco		1,216	100 MW photovoltaic plant on 1,216 acres of BLM land. Would require a 5-8 mile transmission line to planned SCE Red Bluff Substation.
Y Red Bluff Substation	Unknown at this time – near Desert Center	SCE		N/A	Proposed 230/500 kV Substation near Desert Center. Planned to interconnect renewable projects near Desert Center with the DPV transmission line.
Z Chuckwalla Valley Raceway	Desert Center Airport (no longer a functioning airport)	Developer Matt Johnson	Under construction, track expected to be open in mid 2010	400	Proposed 500-mile race track located on 400 acres of land that used to belong to Riverside County and was used as the Desert Center airport. APN 811142016, 811142006
A Eagle Mountain Landfill Project	Eagle Mountain, North of Desert Center	Mine Reclamation Corporation and Kaiser Eagle Mountain, Inc.	U.S. Court of Appeals for the Ninth Circuit issued its ruling regarding the EIS for the project in 11/09 and ruled that the land exchange for the project was not properly approved by the administrative agency. Kaiser's Mine and Reclamation is considering all available options.	~ 3,500	The project proposed to develop the project on a portion of the Kaiser Eagle Mountain Mine in Riverside County, California. The proposed project comprises a Class III nonhazardous municipal solid waste landfill and the renovation and repopulation of Eagle Mountain Townsite. The proposal by the proponent includes a land exchange and application for rights-of-way with the Bureau of Land Management and a Specific Plan, General Plan Amendment, Change of Zone, Development Agreement, Revised Permit to Reclamation Plan, and Tentative Tract Map with the County. The Eagle Mountain landfill project is proposed to accept up to 20,000 tons of non-hazardous solid waste per day for 50 years.

Table 3. Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)

Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
A B Wileys Well Communication Tower (part of the Public Safety Enterprise Communication System)	East of Wileys Well Road, just south of I-10	Riverside County	Final EIR for the Public Safety Enterprise Communication System published in August 2008.	N/A	The Public Safety Enterprise Communication project is the expansion of the County of Riverside's fire and law enforcement agencies approximately 20 communication sites to provide voice and data transmission capabilities to assigned personnel in the field.
A C Mule Mountain Solar Project	South of I-10, approximately 4 miles west of Blythe	Bullfrog Green Energy	Plan of Development in to Palm Springs BLM	2,684	500 MW solar concentrating photovoltaic project located on 2,684 acres. Considering interconnection with proposed SCE Colorado Substation. Approximately 6,000 gallons of water would be required monthly.
Additional Projects Outside Cumulative Figure Boundaries					
Paradise Valley "New Town" Development	Approximately 30 miles west of Desert Center (7 miles east of the city of Coachella)	Glorious Land Company	Notice of Preparation of an EIR published in December of 2005. Still under environmental review.	6,397	Company proposed to develop a planned community as an international resort destination with residential, recreational, commercial, and institutional uses and facilities. The project is planned as a self-contained community with all public and quasi-public services provided. The project is located outside the Coachella Valley Water District (CVWD) boundaries and the applicant has entered into an agreement with the CVWD to manage artificial recharge of the Shaver's Valley groundwater. The proponent has purchased a firm water supply from Rosedale-Rio Bravo Water District in Kern County. In-kind water will be transferred to the MWD which will release water from the Colorado River Aqueduct to a 38 acre percolation pond on the project site. The MWD will deliver approximately 10,000 AFY to the percolation pond and over the long term, no net loss of groundwater in storage is anticipated.
Proposed National Monument (former Catellus Lands)	Between Joshua Tree National Park and Mojave National Preserve		In December 2009, Senator Feinstein introduced bill S.2921 that would designate two new national monuments including the Mojave Trails National Monument.	941,000 acres	The proposed Mojave Trails National Monument would protect approximately 941,000 acres of federal land, including approximately 266,000 acres of the former railroad lands along historic Route 66. The BLM would be given the authority to conserve the monument lands and also to maintain existing recreational uses, including hunting, vehicular travel on open roads and trails, camping, horseback riding and rockhounding.
BLM Renewable Energy Study Areas	Along the I-10 corridor between Desert Center and Blythe	BLM	Proposed		The DOE and BLM identified 24 tracts of land as Solar Energy Study Areas in the BLM and DOE Solar PEIS. These areas have been identified for in-depth study of solar development and may be found appropriate for designation as solar energy zones in the future.

Table 3. Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)

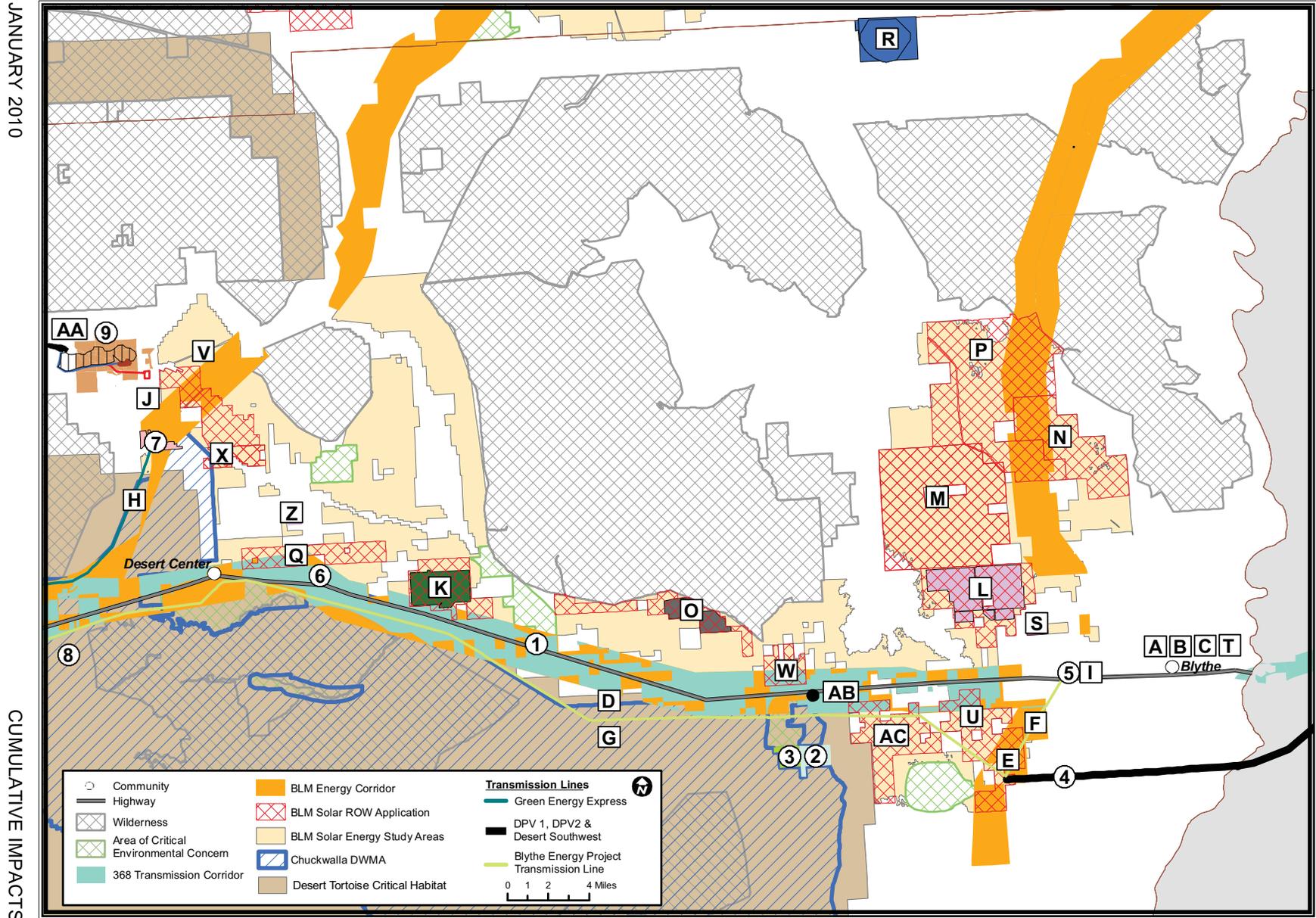
Project Name; ID # Agency ID	Location	Ownership	Status	Acres	Project Description
Solar Energy projects along Arizona Border	Approximately 15 miles east of the CA/ AZ border along I-10 corridor	Various	Applications filed in to Arizona BLM field offices, application status listed as pending.		Five solar trough and solar power tower projects have been proposed along the I-10 corridor approximately 15 miles east of the CA/AZ border. The projects have been proposed on BLM administered-land in the Yuma and Kingman Field Offices and have requested use of approximately 75,000 acres.

1. Water usage for the Eagle Mountain Pumped Storage Project was based on the information provided to FERC by the Eagle Crest Energy Company in the Responses to Deficiency of License Application and Additional Information Request dated October 26, 2009.

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CUMULATIVE IMPACTS - FIGURE 2
 I-10 Corridor Existing and Future/Foreseeable Projects



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, JANUARY 2010

SOURCE: California Energy Commission, Bureau of Land Management

Appendix D LOS Analysis

- Existing Conditions
- Construction Period without Project Condition
- Construction Period with Project Condition

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC Hernandez, Kroone & Associates			Intersection	SR-177 / I-10 EB Off Ramp			
Agency/Co.				Jurisdiction	Existing			
Date Performed	2/19/2010			Analysis Year	Existing			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	2	0	22	2	0		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	2	0	28	2	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	39	1	2		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	0	0	50	1	2		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT				L	T	R
v (vph)		28				50	1	2
C (m) (vph)		1634				936	821	1088
v/c		0.02				0.05	0.00	0.00
95% queue length		0.05				0.17	0.00	0.01
Control Delay		7.2				9.1	9.4	8.3
LOS		A				A	A	A
Approach Delay	--	--				9.0		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC Hernandez, Kroone & Associates			Intersection	SR-177 / I-10 EB Off Ramp			
Agency/Co.				Jurisdiction	Existing			
Date Performed	2/19/2010			Analysis Year	Existing			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	3	3	19	6	0		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	3	3	20	6	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	39	0	1		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	0	0	41	0	1		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT				L	T	R
v (vph)		20				41	0	1
C (m) (vph)		1628				952	833	1083
v/c		0.01				0.04	0.00	0.00
95% queue length		0.04				0.13	0.00	0.00
Control Delay		7.2				9.0	9.3	8.3
LOS		A				A	A	A
Approach Delay	--	--				8.9		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ KROONE & ASSOCIATES			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.				Jurisdiction				
Date Performed	2/19/2010			Analysis Year	EXISTING			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	5	41	0	0	26	45		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	5	46	0	0	29	51		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	0	1	0		
Configuration	LT						TR	
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	14	0	0	0		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	0	0	15	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT		LTR					
v (vph)	5		15					
C (m) (vph)	1531		1029					
v/c	0.00		0.01					
95% queue length	0.01		0.04					
Control Delay	7.4		8.6					
LOS	A		A					
Approach Delay	--	--	8.6					
Approach LOS	--	--	A					

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.	HERNANDEZ KROONE & ASSOCIATES			Jurisdiction				
Date Performed	2/19/2010			Analysis Year	EXISTING			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	42	0	0	22	37		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	0	50	0	0	26	44		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	0	1	0		
Configuration	LT						TR	
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	4	1	18	0	0	0		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	4	1	21	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0				0	
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT		LTR					
v (vph)	0		26					
C (m) (vph)	1544		992					
v/c	0.00		0.03					
95% queue length	0.00		0.08					
Control Delay	7.3		8.7					
LOS	A		A					
Approach Delay	--	--	8.7					
Approach LOS	--	--	A					

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TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	NJC HERNANDEZ, KROONE & ASSOCIATES				Intersection	SR-177 / KAISER ROAD		
Agency/Co.					Jurisdiction	EXISTING		
Date Performed	2/19/2010				Analysis Year	EXISTING		
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: KAISER ROAD					North/South Street: SR-177			
Intersection Orientation: North-South					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	5	28	0	0	35	1		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	5	32	0	0	40	1		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	0	0	11		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	0	0	0	0	0	12		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	5						12	
C (m) (vph)	1581						1037	
v/c	0.00						0.01	
95% queue length	0.01						0.04	
Control Delay	7.3						8.5	
LOS	A						A	
Approach Delay	--	--					8.5	
Approach LOS	--	--					A	

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ, KROONE & ASSOCIATES			Intersection	SR-177 / KAISER ROAD			
Agency/Co.				Jurisdiction	EXISTING			
Date Performed	2/19/2010			Analysis Year	EXISTING			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: KAISER ROAD				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	14	39	0	0	38	1		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	19	54	0	0	53	1		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	1	0	7		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	0	0	0	1	0	9		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	19						10	
C (m) (vph)	1564						998	
v/c	0.01						0.01	
95% queue length	0.04						0.03	
Control Delay	7.3						8.6	
LOS	A						A	
Approach Delay	--	--					8.6	
Approach LOS	--	--					A	

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC Hernandez, Kroone & Associates			Intersection	SR-177 / I-10 EB Off Ramp			
Agency/Co.				Jurisdiction				
Date Performed	2/19/2010			Analysis Year	Construction w/o Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	2	0	22	2	0		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	2	0	28	2	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	40	1	2		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	0	0	51	1	2		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT				L	T	R
v (vph)		28				51	1	2
C (m) (vph)		1634				936	821	1088
v/c		0.02				0.05	0.00	0.00
95% queue length		0.05				0.17	0.00	0.01
Control Delay		7.2				9.1	9.4	8.3
LOS		A				A	A	A
Approach Delay	--	--				9.0		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC Hernandez, Kroone & Associates			Intersection	SR-177 / I-10 EB Off Ramp			
Agency/Co.				Jurisdiction				
Date Performed	4/7/2010			Analysis Year	Construction w/o Project			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	3	3	19	6	0		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	3	3	20	6	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	40	0	1		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	0	0	43	0	1		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT				L	T	R
v (vph)		20				43	0	1
C (m) (vph)		1628				952	833	1083
v/c		0.01				0.05	0.00	0.00
95% queue length		0.04				0.14	0.00	0.00
Control Delay		7.2				9.0	9.3	8.3
LOS		A				A	A	A
Approach Delay	--	--				8.9		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.	HERNANDEZ KROONE & ASSOCIATES			Jurisdiction				
Date Performed	2/19/2010			Analysis Year	Construction w/o Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	5	42	0	0	27	46		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	5	47	0	0	30	52		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	14	0	0	0		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	0	0	15	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT		LTR					
v (vph)	5		15					
C (m) (vph)	1528		1028					
v/c	0.00		0.01					
95% queue length	0.01		0.04					
Control Delay	7.4		8.6					
LOS	A		A					
Approach Delay	--	--	8.6					
Approach LOS	--	--	A					

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ KROONE & ASSOCIATES			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.				Jurisdiction				
Date Performed	4/7/10			Analysis Year	Construction w/o Project			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	43	0	0	22	38		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	0	51	0	0	26	45		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	4	1	18	0	0	0		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	4	1	21	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT			LTR				
v (vph)	0			26				
C (m) (vph)	1542			991				
v/c	0.00			0.03				
95% queue length	0.00			0.08				
Control Delay	7.3			8.7				
LOS	A			A				
Approach Delay	--	--	8.7					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ, KROONE & ASSOCIATES			Intersection	SR-177 / KAISER ROAD			
Agency/Co.				Jurisdiction				
Date Performed	2/19/2010			Analysis Year	Construction w/o Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: KAISER ROAD				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	5	29	0	0	36	1		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	5	33	0	0	41	1		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	0	0	11		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	0	0	0	0	0	12		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	5						12	
C (m) (vph)	1580						1034	
v/c	0.00						0.01	
95% queue length	0.01						0.04	
Control Delay	7.3						8.5	
LOS	A						A	
Approach Delay	--	--					8.5	
Approach LOS	--	--					A	

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ, KROONE & ASSOCIATES			Intersection	SR-177 / KAISER ROAD			
Agency/Co.				Jurisdiction				
Date Performed	4/7/2010			Analysis Year	Construction w/o Project			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: KAISER ROAD				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	14	40	0	0	39	1		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	19	56	0	0	54	1		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	1	0	7		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	0	0	0	1	0	9		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	19						10	
C (m) (vph)	1563						998	
v/c	0.01						0.01	
95% queue length	0.04						0.03	
Control Delay	7.3						8.6	
LOS	A						A	
Approach Delay	--	--					8.6	
Approach LOS	--	--					A	

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC Hernandez, Kroone & Associates			Intersection	SR-177 / I-10 EB Off Ramp			
Agency/Co.				Jurisdiction				
Date Performed	5/5/2010			Analysis Year	Construction with Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	2	0	38	16	0		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	2	0	49	20	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	0	0	1	0		
Configuration	L		TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	98	1	34		
Peak-Hour Factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77		
Hourly Flow Rate, HFR	0	0	0	127	1	44		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	LT				L	T	R
v (vph)	0	49				127	1	44
C (m) (vph)	1609	1634				854	751	1064
v/c	0.00	0.03				0.15	0.00	0.04
95% queue length	0.00	0.09				0.52	0.00	0.13
Control Delay	7.2	7.3				10.0	9.8	8.5
LOS	A	A				A	A	A
Approach Delay	--	--				9.6		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	NJC Hernandez, Kroone & Associates				Intersection	SR-177 / I-10 EB Off Ramp		
Agency/Co.					Jurisdiction			
Date Performed	4/7/2010				Analysis Year	Construction With Project		
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 EB Off Ramp					North/South Street: SR-177			
Intersection Orientation: North-South					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	9	5	22	6	0		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	9	5	23	6	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	40	0	1		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly Flow Rate, HFR	0	0	0	43	0	1		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			1		
Lanes	0	0	0	1	1	1		
Configuration				L	T	R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT				L	T	R
v (vph)		23				43	0	1
C (m) (vph)		1617				934	817	1083
v/c		0.01				0.05	0.00	0.00
95% queue length		0.04				0.14	0.00	0.00
Control Delay		7.3				9.0	9.4	8.3
LOS		A				A	A	A
Approach Delay	--	--				9.0		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.	HERNANDEZ KROONE & ASSOCIATES			Jurisdiction				
Date Performed	5/5/2010			Analysis Year	Construction With Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	5	100	0	0	43	47		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	5	113	0	0	48	53		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	14	0	56	0	0	0		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR	15	0	63	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT		LTR					
v (vph)	5		78					
C (m) (vph)	1504		911					
v/c	0.00		0.09					
95% queue length	0.01		0.28					
Control Delay	7.4		9.3					
LOS	A		A					
Approach Delay	--	--	9.3					
Approach LOS	--	--	A					

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ KROONE & ASSOCIATES			Intersection	SR-177 / I-10 WB OFF RAMP			
Agency/Co.				Jurisdiction				
Date Performed	4/7/10			Analysis Year	Construction With Project			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: I-10 WB OFF RAMP				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	6	43	0	0	25	45		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	7	51	0	0	29	53		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT			TR				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	4	1	18	0	0	0		
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84		
Hourly Flow Rate, HFR	4	1	21	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	0	0		
Configuration		LTR						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT		LTR					
v (vph)	7		26					
C (m) (vph)	1528		983					
v/c	0.00		0.03					
95% queue length	0.01		0.08					
Control Delay	7.4		8.8					
LOS	A		A					
Approach Delay	--	--	8.8					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC			Intersection	SR-177 / KAISER ROAD			
Agency/Co.	HERNANDEZ, KROONE & ASSOCIATES			Jurisdiction				
Date Performed	4/7/2010			Analysis Year	Construction With Project			
Analysis Time Period	AM							
Project Description 08-1002								
East/West Street: KAISER ROAD				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	105	29	0	0	36	4		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	120	33	0	0	41	4		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	0	0	28		
Peak-Hour Factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87		
Hourly Flow Rate, HFR	0	0	0	0	0	32		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	120						32	
C (m) (vph)	1576						1033	
v/c	0.08						0.03	
95% queue length	0.25						0.10	
Control Delay	7.5						8.6	
LOS	A						A	
Approach Delay	--	--					8.6	
Approach LOS	--	--					A	

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TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	NJC HERNANDEZ, KROONE & ASSOCIATES			Intersection	SR-177 / KAISER ROAD			
Agency/Co.				Jurisdiction				
Date Performed	4/7/2010			Analysis Year	Construction With Project			
Analysis Time Period	PM							
Project Description 08-1002								
East/West Street: KAISER ROAD				North/South Street: SR-177				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	14	40	0	0	39	1		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	19	56	0	0	54	1		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	1	0	17		
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71		
Hourly Flow Rate, HFR	0	0	0	1	0	23		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	19						24	
C (m) (vph)	1563						1010	
v/c	0.01						0.02	
95% queue length	0.04						0.07	
Control Delay	7.3						8.7	
LOS	A						A	
Approach Delay	--	--					8.7	
Approach LOS	--	--					A	

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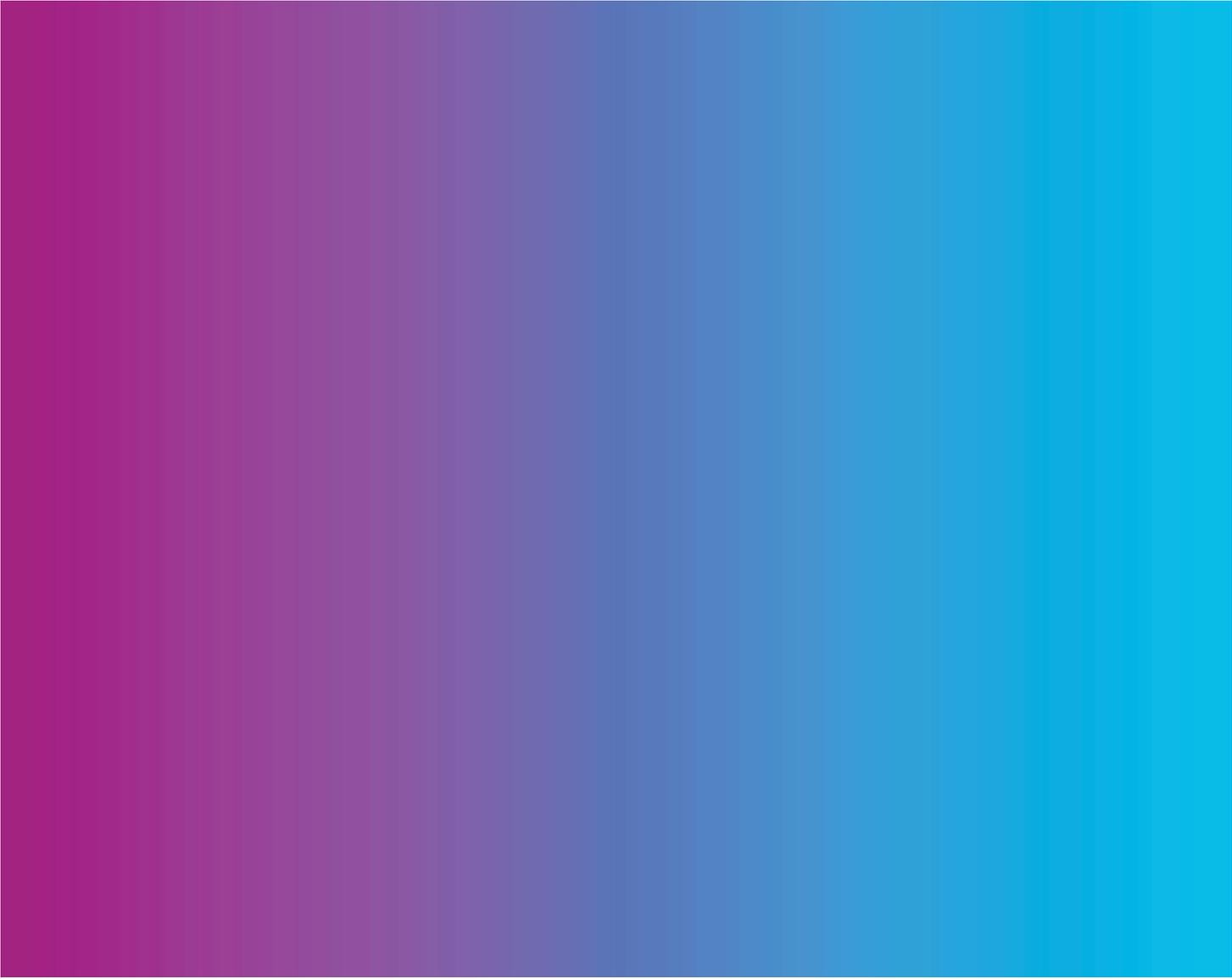
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Appendix J

Phase I Environmental Site

Assessment

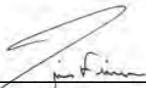
Phase I Environmental Site Assessment of the Proposed Desert Sunlight Solar Farm Project Riverside County, California



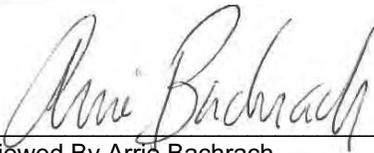
Phase I Environmental Site Assessment of Proposed Desert Sunlight Solar Farm Project Riverside County, California



Prepared By Kirsten Bradford, REA



Reviewed By Jim Fickerson, REA



Reviewed By Arrie Bachrach

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Figure 3-2e Gen-Tie Line – Alternative A1 Mapsheet 5 of 6

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Figure 3-3a Gen-Tie Line – Alternative A2 Mapsheet 1 of 4

Figure 3-3b Gen-Tie Line – Alternative A2 Mapsheet 2 of 4

Figure 3-3c Gen-Tie Line – Alternative A2 Mapsheet 3 of 4

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Figure 3-4a Gen-Tie Line – Alternative B1 Mapsheet 1 of 4

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Figure 3-4c Gen-Tie Line – Alternative B1 Mapsheet 3 of 4

Figure 3-4d Gen-Tie Line – Alternative B1 Mapsheet 4 of 4

Figure 3-5a Gen-Tie Line – Alternative B2 Mapsheet 1 of 5

Figure 3-5b Gen-Tie Line – Alternative B2 Mapsheet 2 of 5

Figure 3-5c Gen-Tie Line – Alternative B2 Mapsheet 3 of 5

Figure 3-5d Gen-Tie Line – Alternative B2 Mapsheet 4 of 5

Figure 3-5e Gen-Tie Line – Alternative B2 Mapsheet 5 of 5

Figure 4-1 Red Bluff Substation – Alternative A Detail Map

Figure 4-2 Red Bluff Substation – Alternative B Detail Map

Executive Summary

First Solar contracted with AECOM Environment (AECOM) to perform a Phase I Environmental Site Assessment (ESA) of the proposed Desert Sunlight Solar Farm project (DSSF or Project) located in east-central Riverside County, California (subject property). The subject property is located approximately 6 ½ miles north of the unincorporated town of Desert Center, California and Interstate 10.

This Phase I ESA was performed in conformance with AECOM's letter proposal dated February 5, 2010, and the general scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E 1527-05 for ESAs. Exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

This assessment took place between February 19 and April 30, 2010, with site visits occurring on March 2, 2010 and April 9, 2010. The subject property is comprised predominately of vacant desert land that consists of the following seven main features:

- Approximately 4,090 acres of vacant desert land that is a proposed solar farm site referred to as Solar Farm Site,,
- Approximately 12 miles of "preferred" transmission line corridor route referred to as gen-tie line - alternative A1,
- Approximately 9 miles of "alternative" transmission line corridor route referred to as gen-tie line - alternative A2
- Approximately 9 miles of "alternative" transmission line corridor route referred to as gen-tie line - alternative B1,
- Approximately 9.5 miles of "alternative" transmission line corridor route referred to as gen-tie line – alternative B2, and
- Two approximately 75-acre square-shaped parcels (referred to as Red Bluff Substation - alternative A and Red Bluff Substation - alternative B) of vacant desert land that are proposed electrical substation sites.

No structures are located on the subject property.

During the site visit, AECOM observed minor (less than two square feet) of stained surface soil beneath trash/debris that appeared to have been dumped along Gen-tie line - alternative B1 route. No other staining or visual evidence of hazardous materials release was observed on the subject property. No evidence of water or oil wells, clarifiers, or dry wells was observed on the subject property. No evidence of historic or current fuel underground storage tanks (USTs) was observed on the subject property. No unusual vegetative conditions were observed on the subject property.

The proposed solar farm site is bordered to the north by Kaiser Steel Road, beyond which is vacant desert land. The proposed solar farm site is bordered to the east and south by desert land. The proposed solar farm site is bordered to the west by residences, Kaiser Road, and vacant desert land. Several water wells were observed to the east of the proposed solar farm site. An underground high-pressure gas line runs along the east side of Kaiser Road, adjacent to the west of the solar farm site. The transmission line routes and substation sites are surrounded predominately by vacant desert land, or fallow row crop. No offsite sources of concern were identified during a reconnaissance of the surrounding area or during a review of a site-specific environmental database report.

Based on AECOM's historical research, the proposed solar farm site has been undeveloped desert since at least 1944 through the present. Historical research indicates that the proposed transmission line routes extend largely alongside existing roadways and through undeveloped desert land, or fallow row crop. In at least the early 1940s, Kaiser Road was depicted developed as an unimproved road, and Eagle Mountain Road was depicted developed as the existing secondary highway. Based on a 1947 topographic map, the gen-tie line - alternative A2 (located at approximately mileage 5.0) is depicted traversing the southwestern corner of a military reservation boundary.

Based on AECOM's site reconnaissance, review of governmental environmental databases and files, and historical documents; interviews conducted with selected individuals and public officials, no recognized environmental conditions (REC), historical RECs (HRECs) or de minimis conditions were identified.

The following other (non-ASTM) environmental concern was identified in connection with the subject property:

- One Formerly Utilized Defense Site (FUDS) site, identified as Desert Center, California, Riverside County, plotted between gen-tie line - alternative A1/gen-tie line - alternative B2 and gen-tie line - alternative B1, was listed with an inactive cleanup status that needs military evaluation for potential explosives (e.g., UXO). Based on AECOM's historical research (Section 4.1), and based on a review of a 1947 topographic map, the gen-tie line - alternative A2 (located at approximately mileage 5.0) is depicted traversing the southwestern corner of a military reservation boundary. Based on this listing and AECOM's historical research, it is AECOM's opinion that there is a potential for unexploded ordnance (UXO) to be located on this portion of the subject property.

On the basis of the finding described above, AECOM recommends the following:

- An evaluation by a UXO specialist should be conducted to further assess the potential for UXO to be located on the southwestern portion of the subject property.

1.0 Introduction

1.1 Purpose

AECOM was retained by First Solar to perform a Phase I ESA of the proposed Desert Sunlight solar farm project located in Riverside County, California (subject property). The purpose of the ESA was to identify the presence of RECs, HRECs, and de minimis conditions as defined by ASTM Standard Practice Designation E 1527-05, which may be associated with the subject property. This Phase I ESA was performed pursuant to AECOM's letter proposal dated February 5, 2010. The purpose of this Phase I ESA is to provide the client with information for use in evaluating potential environmental concerns associated with the subject property.

1.2 Scope of work

The Phase I ESA included a field survey, regulatory research, historic review, and environmental database search of the subject property. In conducting the Phase I ESA, AECOM assessed the subject property for visible signs of possible contamination, researched public records for the subject property, and conducted interviews with persons knowledgeable about the subject property and surrounding area. This project was performed in general accordance with ASTM Standard Practice Designation E 1527-05 and AECOM's letter proposal dated February 5, 2010.

AECOM's standard terms and conditions for this report include, in addition to the ASTM Phase I ESA scope of work, radon, wetlands, and floodplains. Conclusions made in this report are based upon the assessment performed and are subject to the study limitations presented in Section 1.3, below.

1.3 Study limitations

This report describes the results of AECOM's due diligence assessment to identify the presence of environmental liabilities materially affecting the subject facility and/or property. In the conduct of this due diligence evaluation, AECOM assessed the presence of such problems within the limits of the established scope of work as described in our letter proposal.

In the conduct of this due diligence assessment, AECOM has attempted to independently assess the presence of such problems within the limits of the established scope of work as described in our proposal. As with any due diligence evaluation, there is a certain degree of dependence upon oral information provided by facility or site representatives which is not readily verifiable through visual observations or supported by any available written documentation. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this assessment was performed. In addition, the findings in the Report are subject to certain conditions and assumptions. The conditions and assumptions are noted in the report, and any party reviewing the findings of the report must carefully review and consider all such conditions and assumptions.

This report and all field data and notes were gathered and/or prepared by AECOM in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject site. The statements, conclusions, and opinions contained in this report are only intended to give approximations of the environmental conditions at the subject property.

This report is prepared pursuant to an agreement between the client and AECOM and is for the exclusive use of the client. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining AECOM's written consent and provided any such party signs an AECOM generated Reliance Letter. A third party's signing of the AECOM Reliance Letter and AECOM's written consent are conditions precedent to any additional use or reliance on this report.

The passage of time may result in changes in technology, economic conditions, site variations, or regulatory provisions which would render the report inaccurate. Reliance on the report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk.

It should be noted that due to the size of the subject property, a complete pedestrian walk of the subject property was not considered practical. However, based on a precursory environmental database report and online records reviews and research, followed by a visual survey of the subject property and surrounding area, this limitation is not expected to significantly alter the conclusions or recommendations of this report.

1.4 Data failure/data gaps

This assessment took place between February 19 and April 16, 2010, with site visits occurring on March 2 and April 20, 2010. The following data failures/data gaps were encountered during this Phase I ESA:

- Title reports were not provided by First Solar for AECOM's review as part of this Phase I ESA. Due to the combined area of the subject property and length of the proposed gen-tie lines, an environmental lien search of the subject property was not considered practical. However, based on our regulatory and historical research, it is AECOM's opinion that it is unlikely that an environmental liens and/or activity or use limitations have been placed on the subject property. It is AECOM's opinion that this data gap does not represent a significant limitation to this assessment.
- Per ASTM, past owners, operators, and occupants of the subject property, who are likely to have material information regarding the potential for contamination at the subject property, shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. Much of the subject property is owned by the U.S. government and various utilities. Therefore, interviews with past owners of the subject property were not practical during this assessment. It is AECOM's opinion that this data gap does not represent a significant limitation to this assessment.
- A limitation was encountered determining the historical use of the subject property. The earliest source of historical information obtained during this assessment was a 1944 topographic map. Existing roads, or ROWs, were depicted developed on the subject property; however, no other evidence of development (e.g., structures) are shown on the subject property. The ASTM E1527 standard requires the consultant to determine all obvious uses of the property from the present back to the property's first obvious developed use, or back to 1940, whichever is earlier. This requirement could not be achieved during this assessment. However, based upon the apparent undeveloped historical use of the subject property, other than the roads, or ROWs, it is AECOM's opinion that it is unlikely that there has been significant prior development on the subject property. It is therefore AECOM's opinion that this limitation is not expected to significantly impact the results of this assessment.

2.0 Site Description

2.1 Site location

The subject property is located in the east-central portion of Riverside County, approximately 6 ½ miles north of the unincorporated town of Desert Center, California and the adjacent Interstate 10 freeway. For the purposes of this report the subject property is comprised of seven site features including:

- Approximately 4,090 acres of vacant desert land that is a proposed solar farm site referred to as Solar Farm Site,
- Approximately 12 miles of “preferred” transmission line corridor route referred to as gen-tie line - alternative A1,
- Approximately 9 miles of “alternative” transmission line corridor route referred to as gen-tie line - alternative A2
- Approximately 9 miles of “alternative” transmission line corridor route referred to as gen-tie line - alternative B1,
- Approximately 9.5 miles of “alternative” transmission line corridor route referred to as gen-tie line – alternative B2, and
- Two approximately 75-acre square-shaped parcels (referred to as Red Bluff Substation - alternative A and Red Bluff Substation - alternative B) of vacant desert land that are proposed electrical substation sites.

The gen-tie line - alternative A1 route predominately travels south from the proposed solar farm site along the western side of Kaiser Road and east from Desert Center, California. The gen-tie line – alternative A2 route predominately travels southeast from the proposed solar farm site along an existing 161-kilovolt power line right-of-way (ROW). The Red Bluff Substation - alternative A is located south of Interstate 10, approximately 4 miles east of Desert Center, California.

The gen-tie line - alternative B1 predominately travels southwest from the solar farm site and south along Eagle Mountain Road. The gen-tie line –alternative B2 predominately travels south from the proposed solar farm site along the west side of Kaiser Road and southwest from north of Desert Center, California. The substation - alternative B is located south of Interstate 10, at the southern terminus of Eagle Mountain Road, approximately 3 miles west of Desert Center, California.

The approximate location of the subject property, including approximately boundary of the proposed solar farm site, approximate routes of the transmission lines, and substation locations are illustrated on **Figure 1-1 – Project Study Area and Solar Farm Site**.

2.2 Site ownership

According to Ms. Amanda Beck, Business Development Associate with First Solar, the subject property is almost entirely located on public land administered by the United States Bureau of Land Management (BLM), except for the substation - alternative B, two pieces of land located adjacent to Kaiser Road, and along gen-tie line – alternative A2, each of which are privately owned. Ms. Beck has been associated with the subject property since November 2008.

Portions of the proposed gen-tie lines are located along easements or right-of-ways (ROWs) controlled by the County or by the applicable utility, including Metropolitan Water District (MWD), Federal Energy Regulatory Commission (FERC), Southern California Gas Company (SCGC), Kaiser Eagle Mountain LLC, Southern California Edison (SCE), Riverside County Waste Management Department (RCWMD), Riverside County Rice Road, Sprint Communications, Federal Highway Interstate 10, AT&T GRE Lease Admin, AT&T California, AT&T Communications, California Department of Public Works, California Division of Highways, IID, and California Department of Transportation.

2.3 Site visit

Ms. Kirsten Bradford of AECOM's Camarillo, California, office visited the subject property for the first time on March 2, 2010. During the site visit, Ms. Bradford was escorted by Ms. Beck. The weather at the time the site visit was fair with mostly clear skies and temperatures in the mid-60s to mid-70s.

On April 9, 2010, Ms. Bradford visited the subject property a second time to conduct an area reconnaissance of the gen-tie line – alternative A2 and gen-tie line alternative B2 routes. During the second site visit, Ms. Bradford also re-visited the area of the Red Bluff Substation - alternative A, viewing it from the access road, running parallel to and to the south of Interstate 10, that traverses the substation site and. The weather at the time of the second site visit was fair with mostly clear skies and temperatures in the low-60s to high-70s. The methodology for the two site visits consisted of the following:

- Walking and/or driving select interior portions of the proposed solar farm site, including the eastern portion of the study area, and the Red Bluff Substation – alternative A and Red Bluff Substation - alternative B,
- Slowly driving the majority of the proposed gen-tie lines (at speeds of approximately 10 to 20 miles per hour) and periodically stopping to walk portions of the corridors to further evaluate debris or adjacent properties, and
- Driving Interstate 10 and stopping to view the easternmost portion of gen-tie line – alternative A1. Please note that for safety reasons, the driving speed along Interstate 10 was maintained above 55 miles per hour due to the speed and amount of traffic present along this highway.

During the site visit, particular focus was paid to areas of dumping/garbage and debris. Specific features that were noted along the proposed gen-tie lines during the field survey have been identified throughout this report by a mileage point designation. For example, the beginning of the gen-tie line - alternative A1 (southwest of the solar farm site) has been designated as mileage point 0.0 and the portion of the gen-tie line - alternative A1 (north of Desert Center), before it turns and heads east, has been identified as mileage point 6.0.

Significant site features that were observed on the proposed solar farm site are illustrated on **Figure 2-1 – Solar Farm Site**. **Figure 3-1 – Gen-Tie Line Detail Map** illustrates the mileage point designations that have been assigned for discussion purposes throughout this report. Significant site features observed of the gen-tie line - alternative A1 are illustrated on **Figure 3-2a through Figure 3-2f**. Significant site features observed of the gen-tie line - alternative A2 are illustrated on **Figure 3-3a through Figure 3-3d**. Significant site features observed of the gen-tie line - alternative B1 are illustrated on **Figure 3-4a through Figure 3-4d**. Significant site features observed of the gen-tie line - alternative B2 are illustrated on **Figure 3-5a through Figure 3-5e**. Significant site features observed of the substation - alternative A are illustrated on **Figure 4-1 – Red Bluff Substation – Alternative A Detail Map**. Significant site features observed of the substation - alternative B are illustrated on **Figure 4-2 – Red Bluff Substation – Alternative B Detail Map**.

Representative photographs taken during the field survey are provided as **Appendix A**. The following sections summarize the results of the field survey.

2.4 Site description

The subject property consists predominately of vacant desert land. The proposed solar farm site is irregularly-shaped and consists of approximately 4,090 acres. The gen-tie lines (alternative A1, A2, B1, and B2) together comprise approximately 40 miles and the transmission line corridor is anticipated to be approximately 160 feet wide. Multiple transmission lines traverse various portions of the subject property. The two substation sites each consist of approximate 75-acre square-shaped parcels. More specific observations from the site visit are provided below.

No significant staining or visual evidence of hazardous materials release was observed on the subject property. No evidence of water or oil wells, clarifiers, or dry wells was observed on the subject property. No evidence of historic or current fuel USTs was observed on the subject property. No unusual vegetative conditions, other than fallow agricultural row crop, were observed on the subject property.

2.4.1 Solar Farm Site

The irregularly-shaped proposed solar farm site is comprised of vacant desert land. Powerline Road (an unpaved ROW access road) traverses the northern portion of the solar farm site. An unnamed four wheel drive road traverses the southern portion of the solar farm site. No structures or other significant site features were observed on the proposed solar farm site during the site visit.

2.4.2 Gen-tie line - alternative A1

The gen-tie line - alternative A1 runs, from the southwest of the proposed solar farm site, south along the western side of Kaiser Road until it turns east, approximately ½-mile north of the intersection of Rice Road and Kaiser Road. The gen-tie line - alternative A1 continues east, crossing Rice Road, and traveling eastward approximately 5 miles, across desert land, until it turns south and crosses Interstate 10 where it terminates at the substation - alternative A. The gen-tie line - alternative A1 is comprised predominately of desert land, except at the following mileage points:

- At mileage 1.8, a gated entrance and associated unpaved ROW access to the Desert Center Landfill (Riverside County) crosses the gen-tie line - alternative A1 (Figure 3-2a).
- At mileage point 2.5 and 3.8, respectively, gravel pits are located in the gen-tie line - alternative A1 (Figure 3-2b).
- Between mileage point 4.4 and 5.0, an underground utility (e.g., telephone cable) runs along the gen-tie line - alternative A1 (Figure 3-2c).
- At mileage point 6.0, the gen-tie line - alternative A1 crosses Kaiser Road (Figure 3-2c).
- At mileage point 6.6, the gen-tie line - alternative A1 crosses Rice Road (Figure 3-2c).
- At mileage point 12.1, the gen-tie line - alternative A1 crosses Interstate 10 (Figure 3-2f).

2.4.3 Gen-tie line - alternative A2

The gen-tie line - alternative A2 runs, from the southwest of the proposed solar farm site, southeast along existing 161-kilovolt power line ROW, crossing Rice Road, across desert land or abutted by fallow row crop/private land, until it turns south and crosses Interstate 10 where it terminates at the substation - alternative A. The gen-tie line - alternative A2 is comprised predominately of desert land or abutted by fallow row crop/private land (between approximately mileage point 3.2 and 6.5), except at the following mileage points:

- At mileage point 1.0, an approximate 30 cubic-foot pile of broken concrete block including red bricks was observed along the east side of the gen-tie line - alternative A2 (Figure 3-3a).
- At mileage point 2.3, AECOM observed an automotive steel wheel located along the west side of the gen-tie line - alternative A2.

- At mileage point 2.6, a four-wheel drive road traverses the gen-tie line - alternative A2 (leading to an apparent storm water dike located approximately 275 feet southwest of the gen-tie line - alternative A2 and associated with fallow row crops located in the surrounding area of the gen-tie line - alternative A2).
- At mileage point 2.7, AECOM observed an empty (presumably water) 250-gallon aluminum AST that was dumped along the eastern side of the gen-tie line - alternative A2 and used for target-shooting (Figure 3-3b).
- At mileage point 2.8, AECOM observed an approximate 500 square-foot pile of old irrigation water-line hoses located along the east side of the gen-tie line - alternative A2 (Figure 3-3b).
- At mileage point 4.0, AECOM observed a discarded power-line pole located along the western side of the gen-tie line - alternative A2 (Figure 3-3b).
- At mileage point 4.2, AECOM observed approximately 24 tires dumped (some partially buried) along the east side of the gen-tie line - alternative A2, in the storm water channel, that traverses across the gen-tie line - alternative A2.
- At mileage point 7.8, AECOM observed one empty rusted metal 5-gallon fuel container located along the north side of the gen-tie line - alternative A2. No staining was observed on the soil in the vicinity of the container.

2.4.4 Substation - alternative A

The substation - alternative A is comprised of a rectangular-shaped area of vacant desert land. Underground utilities (e.g., telephone cable) traverse the site. No structures or other significant site features were observed on the substation site during the site visit.

2.4.5 Gen-tie line - alternative B1

The gen-tie line - alternative B1 runs from the southwest of the solar farm site, southwest to Eagle Mountain Road, in the vicinity of Victory Pass. The gen-tie line - alternative B1 continues south along the undetermined side of Eagle Mountain Road, traveling southward approximately 5 miles, and crossing Interstate 10 where it terminates at the substation - alternative B. The gen-tie line - alternative B1 is comprised predominately of desert land, except at the following mileage points:

- At mileage point 3.9, Eagle Mountain Railroad crosses the gen-tie line - alternative B1 (Figure 3-4b).
- At mileage point 5.7, a gravel pit is located adjacent to the east of Eagle Mountain Road (Figure 3-4c).
- At mileage point 6.7, a private dirt road travels northwest from Eagle Mountain Road.
- At mileage point 7.9, trash/debris (see Section 2.11) is located adjacent to the east of Eagle Mountain Road (Figure 3-4d).
- Between mileage point 8.4 and 8.6, the Historic 36th Evacuation Hospital Site (see Section 4.1) is within the gen-tie line - alternative B1, on either side of Eagle Mountain Road (Figure 3-4d).
- At mileage point 8.7, a Caltrans road-base material stockpile is stored in the northeastern portion of the intersection of Interstate 10 and Eagle Mountain Road (Figure 3-4d).

AECOM observed black stained surface soil measuring approximately two square feet beneath trash/debris that appeared to have been dumped along the proposed transmission line route. The source of this staining appeared to be from containers of lubricating oil that were observed on the surface of the soil. Given the limited nature of this staining, it is AECOM's opinion stained soil does not present a significant environmental concern to the subject property.

2.4.6 Gen-tie line - alternative B2

The gen-tie line - alternative B2 runs, from the southwest of the proposed solar farm site, south along the western side of Kaiser Road until it turns west, approximately 1-mile north of the intersection of Rice Road and Kaiser Road. The gen-tie line - alternative B2 travels west-southwestward approximately 3 miles, across desert land, until it turns south and crosses Interstate 10 where it terminates at the substation -

alternative B. The gen-tie line - alternative B2 is comprised predominately of desert land, except at the following mileage points:

- At mileage 1.8, a gated entrance and associated unpaved ROW access to the Desert Center Landfill (Riverside County) crosses the gen-tie line - alternative A1 (Figure 3-5a).
- At mileage point 2.5 and 3.8, respectively, gravel pits are located in the gen-tie line - alternative A1 (Figure 3-5b).
- Between mileage point 4.4 and 4.5, an underground utility (e.g., telephone cable) runs along the gen-tie line - alternative A1 (Figure 3-5c).
- Between mileage point 9.0 and 9.2, the Historic 36th Evacuation Hospital Site (see Section 4.1) is within the gen-tie line - alternative B1, on either side of Eagle Mountain Road (Figure 3-4d).

2.4.7 Substation - alternative B

The substation - alternative B is comprised of a rectangular-shaped area of desert land. A dirt road traverses the site. No structures or other significant site features were observed on the substation site during the site visit.

2.5 Building description

No structures were observed on the subject property, including the proposed solar farm site, the ROWs of the proposed gen-tie lines, and the proposed substations sites, during AECOM's field survey.

2.6 Surrounding properties

2.6.1 Solar Farm Site

The proposed solar farm site is bordered to the north by Kaiser Steel Road (a dirt road), beyond which is desert land. The proposed solar farm site is bordered to the east and south by desert land; and to the west by residences, Kaiser Road, and desert land. Water wells are located to the east of the proposed solar farm site (see Section 3.3). An underground high-pressure natural gas line runs along the east side of Kaiser Road, adjacent to the west of the solar farm site. The currently inactive Kaiser Eagle Mountain Mine is located approximately 1 mile west of the solar farm site. No offsite sources of concern were identified in the vicinity of the proposed solar farm site.

2.6.2 Gen-tie line - alternative A1

The gen-tie line - alternative A1 is surrounded predominately by vacant desert land, except at the following mileage points:

- Between mileage point 0.0 and 4.7, an underground high-pressure gas line runs along the east side of Kaiser Road (Figure 3-2a and Figure 3-2b).
- At mileage 2.0, Desert Center Landfill (Riverside County) is located approximately ¼-mile west of the gen-tie line - alternative A1 (Figure 3-2a).
- At mileage 2.5, a residential/farm site is located approximately ¼-mile east of Kaiser Road (Figure 3-2b).
- At mileage point 3.9, a residence (25_650 Kaiser Road) is located adjacent to the east of Kaiser Road (Figure 3-2b).
- At mileage point 4.2, Eagle Mountain Baptist Church is located adjacent to the east of Kaiser Road (Figure 3-2b).
- At mileage point 5.0, Lake Tamarisk, a residential community including a golf course, is located adjacent to the east of Kaiser Road, northeast of the intersection of Kaiser Road and Oasis Road (Figure 3-2c).
- At mileage point 6.4, Chavez Auto and Truck Tire Service (vacant) is located approximately ½-mile south of the gen-tie line - alternative A1 (Figure 3-2c).

- At mileage point 6.5, residential areas, including Coyote Village and an auto salvage yard are located approximately 1-mile south of the gen-tie line - alternative A1 (Figure 3-2c).
- At mileage point 7.5, a SCG transmission station is located approximately ¼-mile south of the gen-tie line - alternative A1, south of Interstate 10 (Figure 3-2d).
- At mileage point 8.2, a borrow pit is located approximately ¼-mile south of the gen-tie line - alternative A1 (Figure 3-2d).

No offsite sources of concern were identified in the vicinity of the preferred transmission line route during an area reconnaissance.

2.6.3 Gen-tie line - alternative A2

The gen-tie line - alternative A2 is surrounded predominately by vacant desert land, or fallow agricultural row crop/private land, except at the following mileage points:

- At mileage point 1.6, AECOM observed a sign-post, located approximately 50 feet east of the gen-tie line - alternative A2, labeled with 'SCE Control Mon', a presumed utility easement.
- At mileage point 2.8, a four-wheel drive road traverses the gen-tie line - alternative A2, leading to apparent water irrigation stand-pipes located approximately 475 feet east of the gen-tie line - alternative A2 and associated with the fallow row crops situated to the south.
- At mileage point 4.1, AECOM observed remnants of agricultural row crop related debris and materials located to the east and west of the gen-tie line - alternative A2, in the area of a former water irrigation system located on the west side of the gen-tie line - alternative A2 (Figure 3-3b). The debris and materials included approximately twelve scattered wooden totes, approximately six wooden pallets, other scattered wood and metal debris, approximately four tires. AECOM observed four concrete foundations, an apparent irrigation water-line hose pumping system/rack, and an approximate (presumably water) 5,000-gallon bunked UST, each of which were presumably used for a former irrigation water pumping system. AECOM observed an approximate 24 square-foot concrete foundation presumably a foundation from a former pump house-type structure (see Section 4.2).
- At mileage point 6.5, AECOM observed trash and debris and two dilapidated approximate 500-square foot buildings located on the east side of the gen-tie line - alternative A2. The trash and debris included scattered wood and metal building materials and household items such as a couch and a mattress box spring, approximately six concrete culverts, and another approximate 500 square-foot pile of old irrigation water-line hoses (Figure 3-3c).

No other offsite sources of concern were identified in the vicinity of the alternative transmission line route during an area reconnaissance.

2.6.4 Substation - alternative A

The substation - alternative A is bordered to the north by Interstate 10, beyond which is desert land. The substation site is bordered to the east, south, and west predominately by vacant desert land. Granite Knob Prospect is located approximately 300 feet east of the site. Storm water dikes associated with Interstate 10 are situated to the northeast of the substation site. A transmission line and underground utility ROW is located approximately 600 feet south of the substation site. A utility-type structure/small building is located approximately 1,000 feet west of the substation site. No offsite sources of concern were identified in the vicinity of the substation site during the area reconnaissance.

2.6.5 Gen-tie line - alternative B1

The gen-tie line - alternative B1 is surrounded predominately by desert land, except at the following mileage points:

- At mileage point 3.9, Eagle Mountain Railroad crosses the gen-tie line - alternative B1, and then travels adjacent along the eastern side of Eagle Mountain Road.
- At mileage point 4.5, the Eagle Mountain Railroad is situated within approximately ¼-mile west of the gen-tie line - alternative B1 (Figure 3-4c).
- Between mileage point 8.4 and 8.6, the Historic 36th Evacuation Hospital Site (see Section 4.2) extends approximately ¼-mile on both the west and east sides of Eagle Mountain Road (Figure 3-4d).
- At mileage point 8.7, a historic gas station is located approximately ½-mile east of the subject property, situated adjacent north of Ragsdale Road (Figure 3-4d).

Eagle Mountain Pumping Station is located approximately 1 mile northwest of the gen-tie line - alternative B1. No offsite sources of concern were identified in the vicinity of the alternative transmission line route during the area reconnaissance.

2.6.6 Gen-tie line - alternative B2

The gen-tie line - alternative B2 is surrounded predominately by desert land, except for at the following mileage points:

- Between mileage point 0.0 and 4.4, an underground high-pressure gas line runs along the east side of Kaiser Road (Figure 3-5a and Figure 3-5b).
- At mileage 2.0, Desert Center Landfill (Riverside County) is located approximately ¼-mile west of the gen-tie line - alternative A1 (Figure 3-5a).
- At mileage 2.5, a residential/farm site is located approximately ¼-mile east of Kaiser Road (Figure 3-5b).
- At mileage point 3.9, a residence (25_650 Kaiser Road) is located adjacent to the east of Kaiser Road (Figure 3-5b).
- At mileage point 4.2, Eagle Mountain Baptist Church is located adjacent to the east of Kaiser Road (Figure 3-5b).
- At mileage point 4.5, Lake Tamarisk, a residential community including a golf course, is located adjacent to the east of Kaiser Road, northeast of the intersection of Kaiser Road and Oasis Road (Figure 3-5c).
- Between mileages point 9.0 and 9.2, the Historic 36th Evacuation Hospital Site (see Section 4.2) extends approximately ¼-mile on both the west and east sides of Eagle Mountain Road (Figure 3-4d).
- At mileage point 9.3, a historic gas station is located approximately ½-mile east of the subject property, situated adjacent north of Ragsdale Road (Figure 3-5d).

No offsite sources of concern were identified in the vicinity of the alternative transmission line route during the area reconnaissance.

2.6.7 Substation - alternative B

The substation - alternative B is bordered to the north by desert land, beyond which is Interstate 10. The substation site is bordered to the east, south, and west predominately by vacant undeveloped desert land. Stormwater dikes associated with Interstate 10 are located to the north of the site. A transmission line ROW is located approximately 800 feet south of the substation site. A borrow pit is located approximately 200 feet east of the substation site, beyond which is Granite (dry) Wash. Granite Mine is located approximately 1 ½-mile southeast of the substation site. No offsite sources of concern were identified in the vicinity of the substation site during the area reconnaissance.

2.7 Petroleum Hydrocarbons and Hazardous Materials

No hazardous materials or petroleum hydrocarbons were observed at the subject property during AECOM's field survey, or were reported by Ms. Beck to be located at the subject property.

2.8 Aboveground storage tanks (ASTs)

No ASTs were observed, or reported by Ms. Beck to be associated with the subject property.

2.9 Underground storage tanks (USTs)

No visual evidence of fuel-related USTs (e.g., vent pipes, fill ports) was observed during the site visit of the subject property. It was Ms. Beck's understanding that no USTs were associated with the subject property. In addition, no USTs were listed for the subject property by the California State Water Resources Control Board online Geotracker Database, or the site-specific environmental database report reviewed by AECOM.

As discussed in Section 2.7.3, at mileage point 4.1, AECOM observed an approximate (presumably water) 5,000-gallon bunked UST presumably used for a former irrigation water pumping system located to the west of the gen-tie line - alternative A2.

2.10 Solid waste

As previously discussed in Section 2.5.1, various locations of trash/debris was observed along the gen-tie line - alternative A2. However, no surface soil staining was observed associated with these locations.

As previously discussed in Section 2.5.3, at mileage point 7.9, along the gen-tie line - alternative B1, trash/debris, including an automobile seat, rubber fan belts, one air filter, eight 1-gallon or smaller containers of lubricating oil, and one aerosol can was observed adjacent to the east of Eagle Mountain Road (Figure 3-4d). Staining surface soil staining measuring approximately two square feet was observed beneath trash/debris. It appears that spilled lubricating oil was the source of soil staining.

No other evidence of improper disposal practices was observed during the site visit. No dumpsters or trash receptacles were observed on the subject property during the site visit.

2.11 Stormwater

Numerous desert washes traverse, and are located in the vicinity of, the subject property. During the site visit, stormwater dikes were typically observed in the vicinity of the subject property and in the surrounding desert land areas. No other stormwater improvements (e.g. drains) were observed on the subject property, during AECOM's site visit.

2.12 Utilities

No utilities currently service the subject property. However, multiple transmission lines traverse various portions of the subject property. Between mileage points 4.4 and 5.0, an underground utility (e.g., telephone cable) runs along the gen-tie line - alternative A1. Underground utilities (e.g., telephone cable) traverse the substation - alternative A. Water wells are located to the east of the solar farm site (see Section 3.3). An underground high-pressure gas line runs along the east side of Kaiser Road, adjacent to the west of the solar farm site. No other utilities (e.g., signage for buried pipeline) were observed on the solar farm site or along the proposed gen-tie lines.

2.13 Polychlorinated Biphenyls (PCBs)

No pole-mounted transformers were observed along the powerline ROW associated with gen tie-line - alternative A2. However, numerous pole-mounted transformers were observed the along easements and ROWs primarily along Kaiser and Rice Roads. No other potentially PCB-containing equipment was observed in association with the subject property. No staining or visual evidence of hazardous materials release was observed near the base of the transformers.

3.0 Environmental Setting

3.1 Topography

Based on the site visit, a review of United States Geological Survey (USGS) topographic maps (Chuckwalla Mountains, Corn Spring, Coxcomb Mountains, Desert Center, East Victory Pass, Pinto Wells, and Victory Pass, California), and the Google Earth website, the elevation of the subject property ranges between approximately 800 feet above mean sea level (amsl) in the northwestern portion of the proposed solar farm site to elevations of approximately 600 feet amsl in the southeastern portion of the proposed solar farm site. The topographic gradient in the vicinity of the proposed solar farm site, within the Chuckwalla Valley, slopes gradually downward to the southeast. According to the Plan of Development, the Chuckwalla Valley is bounded by a series of alluvial fans that slope toward the southwest and southeast.

Elevations along the preferred transmission corridor and substation site vary between approximately 700 to 900 feet amsl. Elevations along the alternative transmission corridors and substation site vary between approximately 900 and 1,200 feet amsl.

3.2 Soil

According to the Plan of Development submitted to the BLM by First Solar, surficial soils in the vicinity of the subject property are made up of quaternary alluvium sediments consisting of alluvial fans, river deposits, and sand dune deposits. Soils in the solar farm site vary between rocky, hard-packed areas with early-stage desert pavement to areas of desert dry wash woodland.

3.3 Groundwater

According to the Plan of Development, the Chuckwalla Valley Groundwater Basin underlies the subject property. Based on the topography, groundwater beneath the solar farm site is anticipated to flow southeast-east, toward Palen Dry Lake located approximately 7 ½-miles from the subject property. No depth to groundwater information was identified for the area of the subject property as part of this assessment.

Based on AECOM's site visit and according to Ms. Amanda Beck, there are two active water wells located approximately ¼-mile east of the solar farm site. According to Ms. Beck, the wells are water production wells located on BLM land, but are operated by Kaiser Steel in support of Kaiser Eagle Mountain Mine (located approximately 1 mile west of the solar farm site) operations. The locations of the wells are depicted on **Figure 2-1 – Solar Farm Site**.

According to Ms. Beck, it is likely that First Solar would utilize one or both of the active water wells for the proposed solar farm site. During the site visit, AECOM observed an apparent buried water supply pipeline traveling along Kaiser Road from the well sites, pole-mounted electrical transformers, a covered below ground level utility vault, two pad-mounted electrical transformers, and three concrete-block mounted electrical transformers associated with the offsite water wells. The two offsite active water wells were each enclosed within a fenced yard. Additionally, AECOM observed an inactive water well located in the vicinity of the two active water wells. The well had a bolted-down cover.

AECOM observed what appeared to be water well located along Kaiser Steel Road located adjacent to the east of the solar farm site. The apparent water well was pad-locked. According to Ms. Beck, the well is maintained by Kaiser Steel as a capped water-well with the potential to be tapped for future use as another production well.

According to Ms. Beck, the water wells were installed circa 1930s with the development of the Kaiser Eagle Mountain Mine.

3.4 Radon

Radon is a radioactive gas that is generated by the decay of radium in the underlying soil and rocks. Radon gas levels are highly site specific and are influenced by soil and building conditions, including pressure differentials between the soil and the building. The U.S. Environmental Protection Agency (EPA) has established a guideline threshold of 4.0 picoCuries per liter (pCi/L) of air, above which there may be adverse health risks if exposure continued over a prolonged period of time. However, based upon the future non-residential usage of the subject property, AECOM does not consider radon a significant concern at the subject property.

3.5 Wetlands

According to the Plan of Development, a preliminary investigation and assessment of the solar farm site indicated that the subject property does not contain waters or wetlands subject to Federal Clean Water Act jurisdiction. However, please note that a wetlands delineation survey was not conducted as part of this assessment.

3.6 Floodplains

According to the Plan of Development, the solar farm site is located in an area designated as FEMA Flood Zone D. Zone D includes areas with possible but undetermined flood hazards where no flood hazard analysis has been conducted. However, the solar farm site is situated adjacent to the west of Pinto Wash. The Pinto Wash is flow limited on the branches north of the subject property due to the above ground construction of the Colorado River Aqueduct. The sections of the Colorado River Aqueduct to the north and northwest of the subject property include berms and underground siphons to control and allow storm water to flow over the aqueduct. This control results in a series of weirs where the storm water flowing off the mountains, in the vicinity of the subject property, continues to the Pinto Wash.

4.0 Site and Area History

Historical information for the subject property and surrounding properties is based on AECOM's review of topographic maps dated 1944, 1947, 1963, 1986/1987; aerial photographs dated 1953, 1996, and 2002; Internet research, and an interview with Ms. Beck. With the exception of the Plan of Development information referenced throughout this report, no previously prepared environmental reports were identified during the course of this assessment.

4.1 Subject property

Based on AECOM's historical research, the solar farm site has been undeveloped desert land since at least 1944 through the present. In at least 1944, the four-wheel drive road that traverses the southern portion of the solar farm site, leading northwest toward an offsite prospect, is depicted developed. In at least the late 1980s, topographic maps depict a prospect in the northwestern corner of the solar farm site. Powerline Road and the associated transmission line is depicted traversing the northern portion of the solar farm site. No other improvements are depicted on the solar farm site in the topographic maps or according to a review of aerial photographs.

Historical research indicates that the proposed gen-tie line routes extend largely alongside existing roadways and through undeveloped desert land or row crop. In at least the early 1940s, Kaiser Road was depicted developed as an unimproved road, and Eagle Mountain Road was depicted developed as the existing secondary highway. Based on a 1947 topographic map, the gen-tie line - alternative A2 (located at approximately mileage 5.0) is depicted traversing the southwestern corner of a military reservation boundary. By at least the early 1960s, the existing power-line is depicted along the gen-tie line - alternative A2. In at least the late 1980s, topographic maps depict the gravel pits located along the gen-tie line - alternative A1 at mileage point 2.5 and 3.8, respectively, (Figure 3-2b) and gen-tie line - alternative B2 at mileage point 2.5 and 3.8, respectively, (Figure 3-5b). In at least the late 1980s, the gravel pit located along gen-tie line - alternative B1 (mileage point 5.7) located adjacent to the east of Eagle Mountain Road was depicted (Figure 3-4c).

According to Ms. Beck, she is not aware of any historical uses of the subject property other than as undeveloped desert land, except for the potential historical use of the subject property by General George Patton and his troops for combat warfare training exercises during World War II. However, according to Ms. Beck, no evidence of such use has been identified.

No significant historical uses of concern on the subject property were identified during this assessment.

4.2 Adjacent sites

Historical research indicates that the surrounding properties were largely undeveloped desert land.

Sometime between the 1960s and 1980s, the residences to the west of the solar farm site, and the wells to the east of the solar farm site were developed. In a 1987 topographic map, a pond was depicted adjacent to the south of the existing well located at the end of Kaiser Steel Road. In at least the late 1980s, topographic maps depict prospects and associated drill holes adjacent located to the northwest of the solar farm site.

In at least the late 1980s, topographic maps depict the landfill located approximately ¼-mile west of the gen-tie line - alternative A1 (Figure 3-4), beyond which were depicted prospects. In at least the late 1980s, topographic maps depict, a well located in the area of the apparent former irrigation water pumping system located on the west side of the gen-tie line - alternative A2 (Figure 3-3b). Desert Center has been depicted as developed since at least 1944. A 1986 topographic map depicts the borrow pit (mileage point 2.1), located approximately ¼-mile south of the gen-tie line - alternative A1 (Figure 3-5).

In at least the early 1950s, a storm water dike associated with Interstate 10 situated to the northeast of, Granite Knob Prospect located approximately 300 feet east of, the transmission line and underground utility ROW located approximately 600 feet south of, and the utility-type structure/small building located approximately 1,000 feet west of, were depicted developed in the vicinity of the substation - alternative A (Figure 4-1).

In at least the early 1950s, one structure remaining from the Historic 36th Evacuation Hospital Site (May through December 1943) was depicted (Figure 3-7). Sometime in approximately the early 1960s through at least the late 1980s, the historic gas station located approximately ½-mile east of the subject property, situated adjacent north of Ragsdale Road was depicted developed (Figure 3-7). Sometime between approximately the 1950s and early 1960s, the Eagle Mountain Railroad was depicted first developed in the vicinity of and crossing the gen-tie line - alternative B1 along Eagle Mountain Road (Figure 3-9).

In at least the early 1950s, the storm water dikes associated with Interstate 10 situated to the north of, the transmission line ROW located approximately 800 feet south of, the borrow pit located approximately 200 feet east of, were depicted developed in the vicinity of the substation - alternative B (Figure 4-2).

No significant historical uses of concern of the adjacent sites were identified during this assessment.

5.0 Database and Records Review

5.1 User Provided Information

AECOM interviewed Ms. Beck regarding her knowledge of title records, environmental liens, specialized knowledge, and/or real estate value reduction issues associated with the subject property. Ms. Beck was not aware of environmental cleanup liens or activity use limitations that had been placed on the subject property. Ms. Beck stated that she does not have specialized knowledge or experience that is material to RECs in connection with the subject property. It was Ms. Beck's opinion that the lease price of the subject property reflected its fair market value.

Ms. Beck stated she was not aware of specific chemicals, spills, chemical releases, or environmental cleanups that have taken place at the subject property (if any). It was Ms. Beck's opinion that there were not obvious indicators that point to the presence or likely presence of contamination at the subject property.

5.2 Title Records/Environmental Liens

Title reports were not provided by First Solar for AECOM's review as part of this Phase I ESA. Due to the combined area of the subject property and length of the proposed gen-tie lines, an environmental lien search of the subject property was not considered practical. However, based on AECOM's regulatory and historical research, it is AECOM's opinion that environmental liens and/or activity or use limitations are unlikely to have been placed on the subject property.

5.3 Database information

In accordance with the scope of work and ASTM Standard E-1527-05, a search of various governmental databases was conducted by Track Info Services. AECOM reviewed an Environmental FirstSearch report prepared by Track Info Services to determine the potential for environmental impacts to the subject property from onsite and/or offsite sources of concern. All non-geocoded/un-plottable sites were researched by AECOM during the site reconnaissance. A summary of the results of the Environmental FirstSearch report are presented below. A list of the databases searched and the search distances are provided in the Environmental FirstSearch report.

Based on AECOM's research, the subject property is not located on or within one mile radius of tribal lands. As a result, tribal records were not researched as a part of this assessment.

5.3.1 Subject property

The subject property, including the solar farm site, the gen-tie line - alternative A1, gen-tie line - alternative A2 and substation site, and the gen-tie line - alternative B1, gen-tie line - alternative B2 and substation site, was not identified in the environmental databases searched in the Environmental FirstSearch report.

5.3.2 Surrounding sites

One geo-coded site was identified in the UST database of environmental databases searched in the Environmental FirstSearch report. Based on AECOM's site reconnaissance, the site is identified as **Chavez Auto and Truck Tire Service**, located approximately ½-mile south of the gen-tie line - alternative A1 (Figure 3-5). The UST site is identified as Desert Diesel, located at 27625 Rice Road. No other details about the UST site were available in the Environmental FirstSearch report. At the time of AECOM's site reconnaissance, the site appeared vacant. Based on the status of the site (non-contamination related) and

the distance of the site from the gen-tie line - alternative A1 (over 1,000 feet), this site does not present a REC to the subject property, in AECOM's opinion.

Thirty non-geocoded/un-plottable sites were identified in the Environmental FirstSearch report to be located within 1-mile radius of the subject property boundaries, including seven ERNS sites, two PERMITS sites, two SWL sites, one NFRAP site, three OTHER sites, two RCRA generator sites, one TRIBALLAND site, and ten UST sites were identified. Based on their distance from the subject property (over 1,000 feet), type of database listing (non-contamination-related), regulatory status (cleaned-up), media impacted (soil only), the majority of these sites are not considered to present a REC.

However, based on their distance from the subject property (less than 1,000 feet), type of database listing (contamination-related), regulatory status (active), the following sites are discussed with additional detail below:

- **Desert Center Landfill** (Riverside County) was identified located at 17-991 Kaiser Road on the PERMITS, SWL, and OTHER site databases. Based on AECOM's site reconnaissance, the site is located approximately ¼-mile west of the gen-tie line - alternative A1 and gen-tie line - alternative B2 (Figure 3-4). The site was identified on the PERMITS database as Riverside County Waste Management (CAH111000848/Active), on the SWL database as Desert Center Sanitary 98-002 (WMUD7A330305121/Active), and on the OTHER database as Desert Center Landfill (Ricogen_856/Not Reported). No hazardous waste manifest inventory (HWM/I) was reported from at least 1993 through 2004. Household waste and unspecified oil-containing waste was reported presumably delivered to the site in 2005 through 2008. According to information pertaining to the site's SWL listing, the site receives approximately two tons of non-hazardous solid wastes per day, and is not open to the public. The approximate 160-acre site is owned by BLM, and operated by Riverside County Waste Management Division. The site is expected to reach capacity in 2011. Average depth to groundwater beneath the site is reported to be at 245 feet. Based on the status of the site (permitted, non-contamination related) and the distance of the site from the gen-tie line - alternative A1 and gen-tie line - alternative B2 (over 1,000 feet), this site does not present a REC to the subject property.
- **Eagle Mountain Landfill** was identified located 10 miles north of Desert Center, in the vicinity of the subject property, on the SWL site database. However, the site is listed as SWIS33-AA-0228/Planned, and according to Ms. Beck, the site was never built. Based on this information, the site does not present a REC to the subject property.
- **Caltrans Desert Center** was identified located at 44740 Ragsdale Road on the LUST (T060659306/Completed - Case Closed) site database. Based on AECOM's site reconnaissance, the site is located in Desert Center approximately ½-mile southwest of the gen-tie line - alternative A1. Based on the status (completed - case closed) and/or the distance of the site from the subject property, including the gen-tie line - alternative A1 (over 1,000 feet), this site does not present a REC to the subject property.
- **Eagle Mountain Pumping Station** was identified on various presumably associated listings including Eagle Mountain Pumping Plant, MWD_Eagle Mountain Pumping, and MWD_Julian Hinds Pumping Plant were identified on the RCRA generator, UST, OTHER (for a release of 100-gallons of diesel-fuel from a tanker truck rupture that spilled onto a highway), and LUST (T060659306/Completed - Case Closed) site databases. Based on AECOM's site reconnaissance, the Eagle Mountain Pumping Station is located approximately 1 mile northwest of the gen-tie line - alternative B1 (see Figure 3-9). Based on the status (completed - case closed) and/or the distance of the site from the subject property, including the gen-tie line - alternative A1 (over 1,000 feet), this site does not present a REC to the subject property.

- **Kaiser Eagle Mountain Mine** was identified located at North of Interstate 10, 8 miles off Kaiser Road on the NFRAP site database. Based on AECOM's site reconnaissance, this site is located approximately 1 mile west of the solar farm site. According to information provided in the Environmental FirstSearch report, site discovery occurred in 1993, and preliminary assessment of the site occurred in 1994, immediately followed by receiving an archived and no further remedial action planned (NFRAP) status. Based on the status (archived, NFRAP) and the distance of the site from the subject property (over 1,000 feet), this site does not present a REC to the subject property.

No other sites of concern were identified in the database report, and no other offsite sources of concern were identified during AECOM's reconnaissance of the surrounding area.

5.4 Regulatory agency review

5.4.1 California State Department of Toxic Substances Control

AECOM searched the California State Department of Toxic Substances Control (DTSC) online EnviroStor database for California Cleanup Sites involving the DTSC. The EnviroStor database consists of federal National Priorities List (NPL) sites, state response sites, voluntary cleanup sites, and school cleanup sites. The subject property, including along the proposed gen-tie lines, was not identified in the EnviroStor database.

One FUDS site, identified as Desert Center, CA, Riverside County, plotted between gen-tie line - alternative A1/gen-tie line - alternative B2 and gen-tie line - alternative B1, was listed with an inactive cleanup status that needs military evaluation for potential explosives (e.g., UXO). No other information was provided regarding this listing. Based on AECOM's historical research (Section 4.1), based on a review of a 1947 topographic map, the gen-tie line - alternative A2 (located at approximately mileage 5.0) is depicted traversing the southwestern corner of a military reservation boundary. Based on this listing and AECOM's historical research, it is AECOM's opinion that there is a potential for unexploded ordnance (UXO) to be located throughout the southwestern portion of the subject property. Based on the results of the site visit (no visual evidence of significant soil staining was observed), the arid nature of the subject property, and our experience working on similar sites, it is AECOM's opinion the potential presence of UXO (if any) in the southwestern portion of the subject property is not a REC.

One Military Cleanup site, identified as Desert Center Airport, located approximately ½-mile east of gen-tie line - alternative A2 was listed with an open cleanup status since 1965. No other information was provided regarding this listing. On April 12, 2010, AECOM contacted Mr. David Virginia, DTSC Caseworker regarding the status of this site listing. At the time of this report, AECOM has not received a response from DTSC regarding the status of this site listing; however, based on its distance from the subject property, it does not present a REC to the subject property, in AECOM's opinion.

One FUDS site, identified as Corn Springs Gap Filler Annex SM-16, located approximately 4-miles south of Red Bluff substation - alternative A, was listed with an inactive cleanup status that needs evaluation. No other information was provided regarding this listing; however, based on its distance from the subject property, it does not present a REC to the subject property, in AECOM's opinion.

5.4.2 California State Water Resources Control Board

AECOM reviewed the California State Water Resources Control Board online Geotracker database to determine if they have files related to USTs and/or historical hazardous materials releases that may have occurred on the subject property, including along the proposed gen-tie lines. The subject property was not identified in the Geotracker database.

5.4.3 United States Environmental Protection Agency

AECOM searched the United States Environmental Protection Agency's online Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) databases. The CERCLIS database consists of sites being assessed under the Superfund program (NPL sites), hazardous waste sites, and potential hazardous waste sites. The subject property was not identified in the databases searched.

6.0 Conclusions and Recommendations

AECOM has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 of the subject property. Any exception to, or deletions from, this practice are described in Section 1.0 of the report. This assessment has revealed no evidence of RECs, HRECs, or de minimis conditions in connection with the subject property.

The following other (non-ASTM) environmental concern was identified in connection with the subject property:

- One FUDS site, identified as Desert Center, CA, Riverside County, plotted between gen-tie line - alternative A1/gen-tie line - alternative B2 and gen-tie line - alternative B1, was listed with an inactive cleanup status that needs military evaluation for potential explosives (e.g., UXO). Based on AECOM's historical research (Section 4.1), based on a review of a 1947 topographic map, the gen-tie line - alternative A2 (located at approximately mileage 5.0) is depicted traversing the southwestern corner of a military reservation boundary. Based on this listing and AECOM's historical research, it is AECOM's opinion that there is a potential for UXO to be located throughout the subject property.

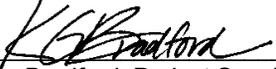
On the basis of the finding described above, AECOM recommends the following:

- An evaluation by a UXO specialist should be conducted to further assess the potential for UXO to be located on the southwestern portion of the subject property.

7.0 Quality Control/Quality Assurance

7.1 Field survey, research, and report preparation:

The field survey, research, and report preparation were conducted by Ms. Kirsten Bradford, Project Specialist, in AECOM's Camarillo, California, office. Ms. Bradford completed this report on April 16, 2010. She has over six years of environmental due diligence experience and has performed and/or managed numerous Phase I ESAs of commercial and industrial property located throughout the United States. Her signature is below and her resume is included in Appendix C.

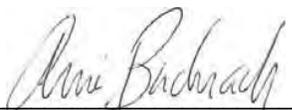
Signature: 
Kirsten Bradford, Project Specialist

7.2 Quality control review

A first level review of this report was conducted by Mr. Jim Fickerson, Program Manager, in AECOM's Camarillo, California, office. Mr. Fickerson completed his review of this report on April 30, 2010. Mr. Fickerson has 15 years of environmental due diligence experience and has performed and/or managed hundreds of Phase I ESAs located throughout the United States. His signature is below and his resume is included in Appendix

Signature: 
Jim Fickerson, Program Manager

A second level review of this report was conducted by Mr. Bachrach, Senior Program Manager, in AECOM's Camarillo, California, office. Mr. Bachrach completed his review of this report on April 20, 2010. Mr. Bachrach has over 25 years of environmental due diligence experience. His signature is below and his resume is included in Appendix C.

Signature: 
Arrie Bachrach, Senior Program Manager

7.3 Environmental professional statement

Ms. Bradford was the Environmental Professional (EP) for this project. Ms. Bradford's EP statement is below:

I declare that, to the best of my professional knowledge and belief, I meet the definition of an EP as defined in §312.10 of 40 CFR and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature: 
Kirsten Bradford, Project Specialist

8.0 References

Aerial imagery copyrighted 2010 of the subject property. Imagery, dated December 25, 2005, reviewed online at Google Earth website, <http://www.google.com>

Aerial imagery provided by Track Info Services LLC of the subject property. Imagery dated 1953, 1996, and 2002.

Beck, Amanda (site contact), Business Development Associate, Environmental, First Solar, 1111 Broadway, 4th Floor, Oakland, California 94607, (510) 625-7405, abeck@firstsolar.com.

Environmental FirstSearch™ Report, prepared by Track Info Services LLC, Desert Sunlight, Desert Center, California, 92239, dated April 12, 2010.

Plan of Development, Desert Sunlight Solar Farm, submitted by First Solar, document number 2406\2098621.1, submitted to U.S. Bureau of Land Management Palm Springs-South Coast Field Office, Riverside County, California, submitted December 22, 2009, BLM Project Number CACA # 48649.

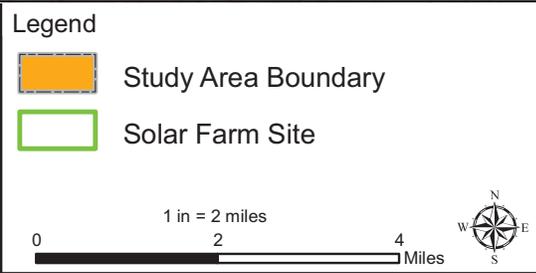
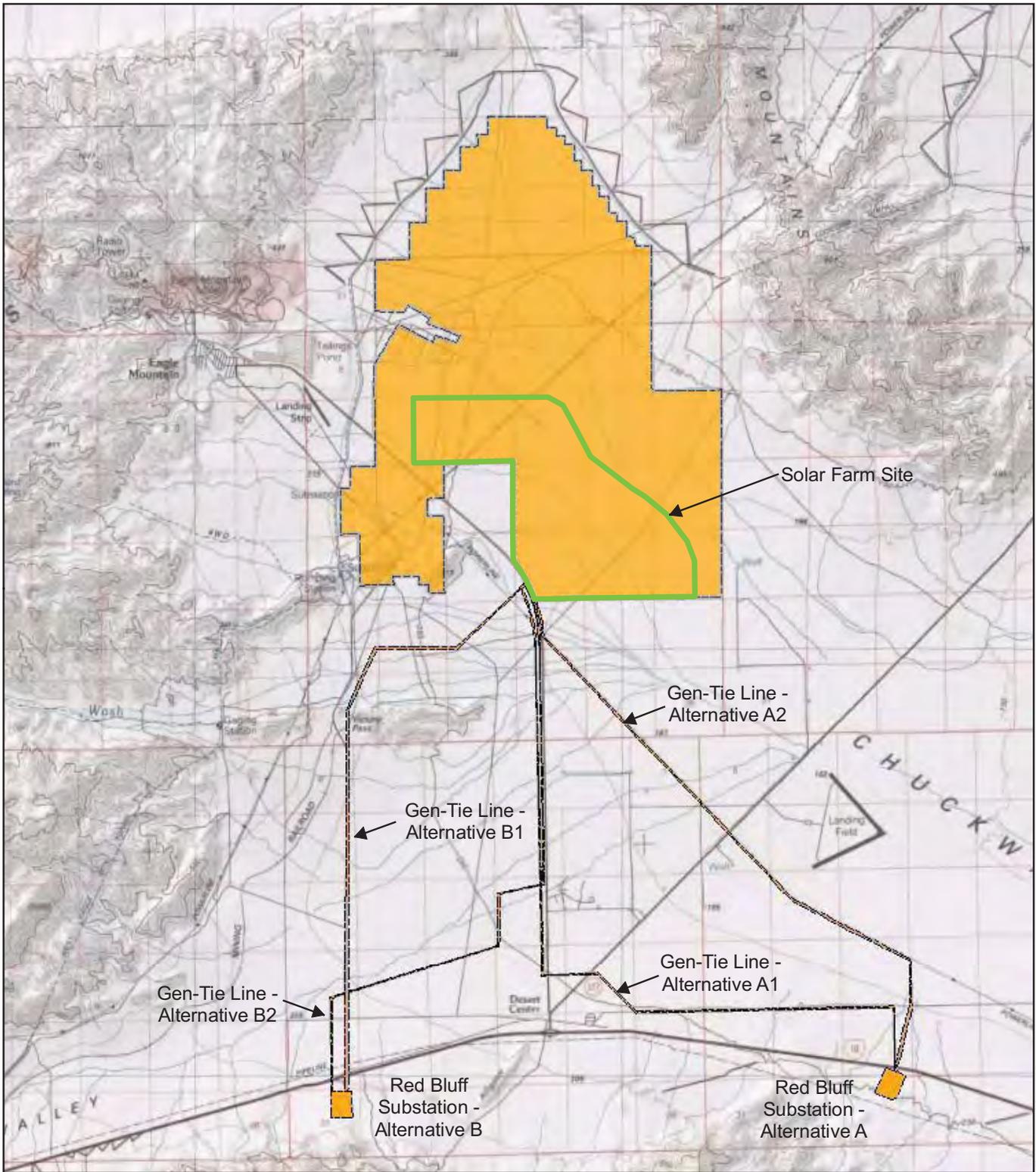
State Department of Toxic Substances Control (DTSC). EnviroStor online database search conducted at <http://www.envirostor.dtsc.ca.gov/public/>

State Water Resources Control Board (SWRCB). GeoTracker online document search conducted at <http://geotracker.swrcb.ca.gov/>

United States Environmental Protection Agency (EPA). Enforcement & Compliance History Online (ECHO), http://www.epa-echo.gov/echo/compliance_report.html CERCLIS online database, <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>

United States Geological Survey (USGS) topographic maps (Chuckwalla Mountains, Corn Spring, Coxcomb Mountains, Desert Center, East Victory Pass, Pinto Wells, and Victory Pass, California) provided by Track Info Services LLC of the subject property. Maps dated 1944, 1947, 1963, 1986/1987.

Figures



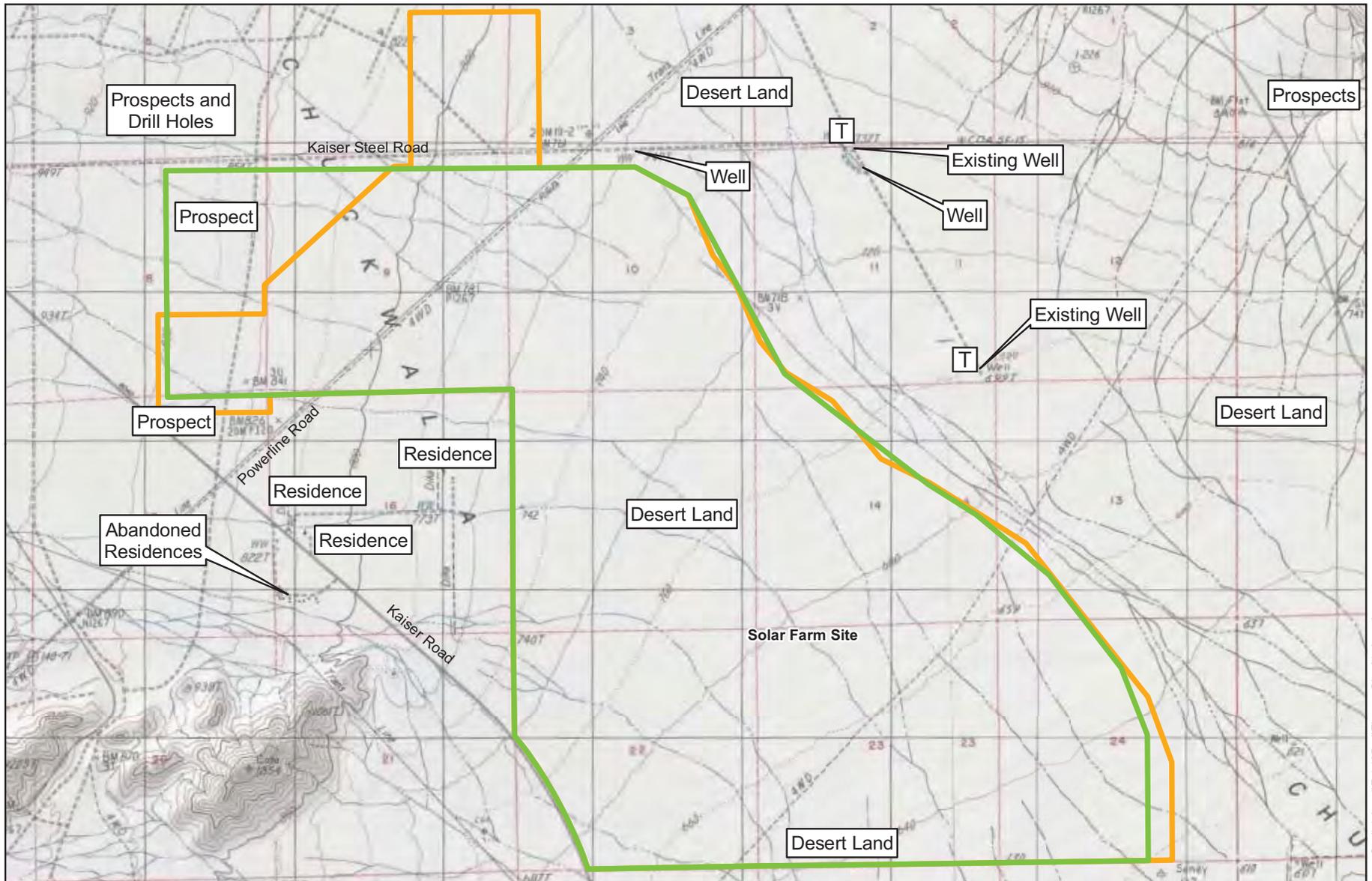
**Desert Sunlight
Solar Farm Project**

**Figure 1-1
Project Study Area
and Solar Farm Site**




Project: 60139386.004
Date: March 2010

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Legend

- Solar Farm Site - Alternative A
- Solar Farm Site - Alternative B
- T Pad/Concrete Mounted Transformer

1 inch = 3,000 feet

0 3,000 6,000 Feet

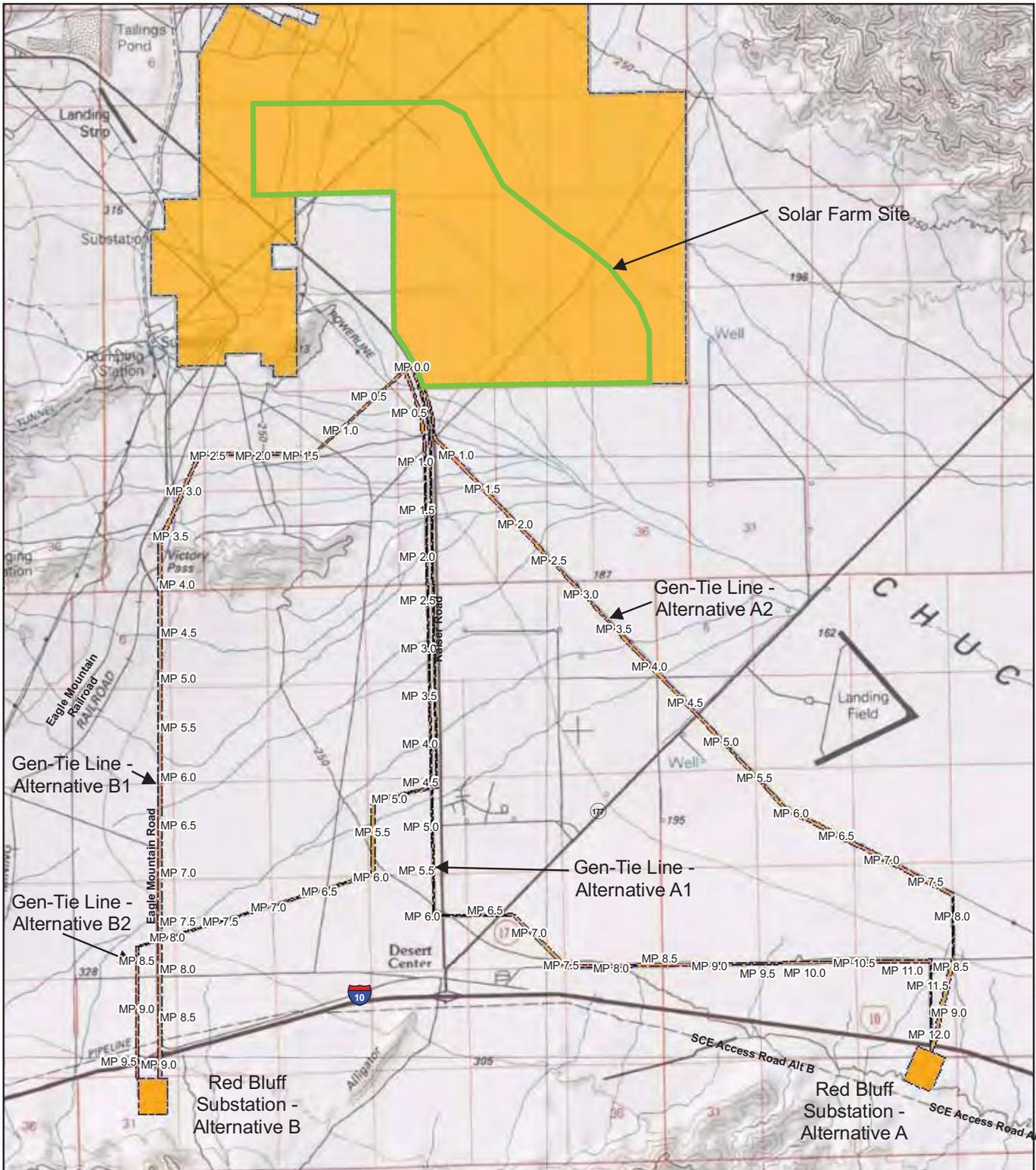


**Desert Sunlight
Solar Farm Project**

**Figure 2-1
Solar Farm Site**




Project: 60149119-100
Date: April 2010



Legend

- Study Area Boundary
- Solar Farm Site

Milepoint Designations

MP 2.5

0 1 2 Miles

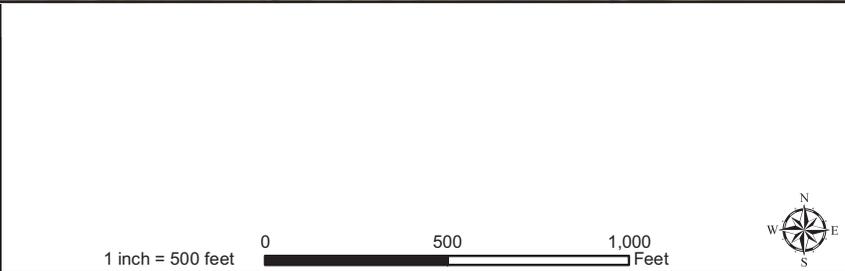
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Desert Sunlight Solar Farm Project

Figure 3-1 Gen-Tie Line Detail Map

Project: 60149119-100
Date: April 2010

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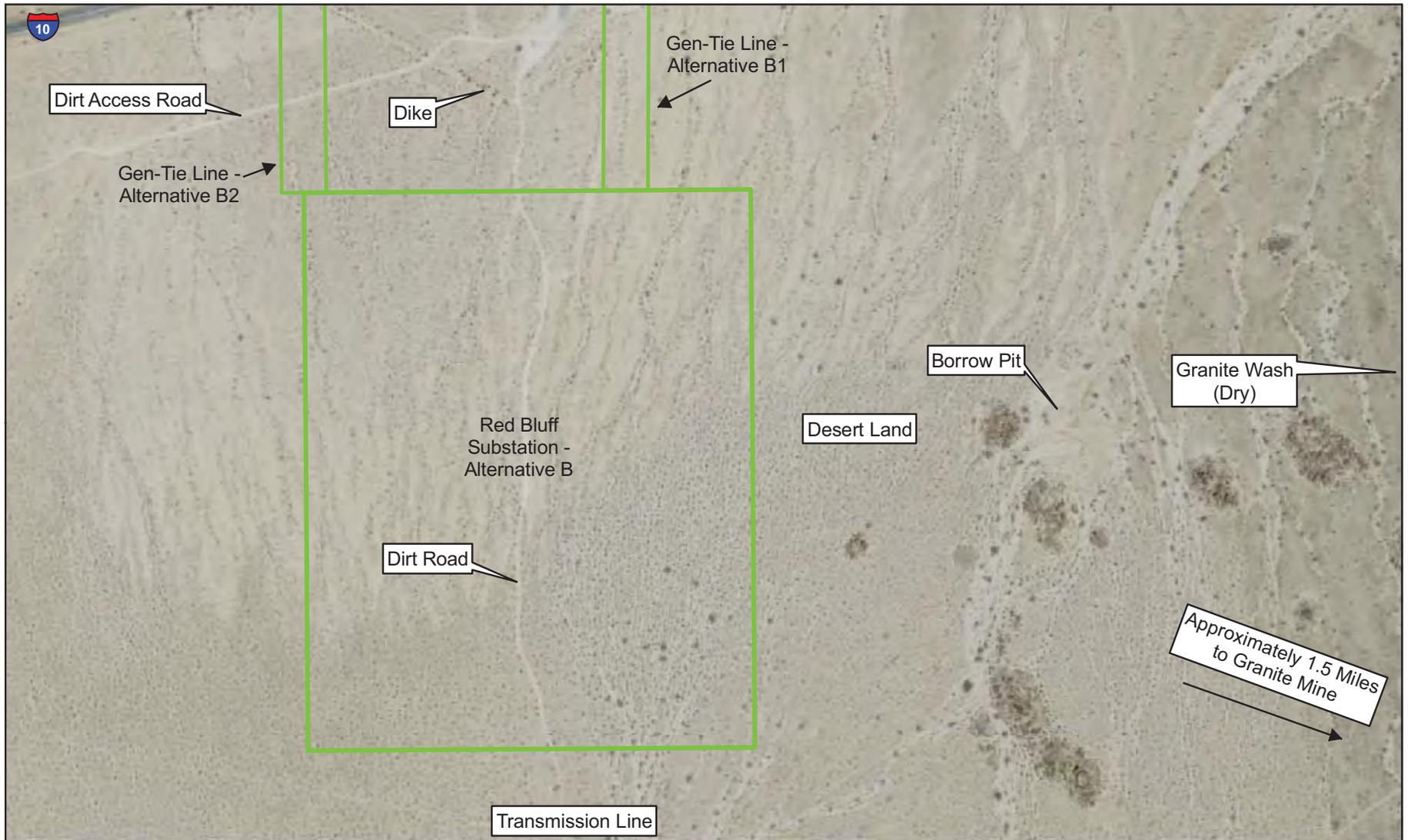


**Desert Sunlight
Solar Farm Project**

**Figure 4-1
Red Bluff
Substation -
Alternative A
Detail Map**




Project: 60149119-100
Date: March 2010

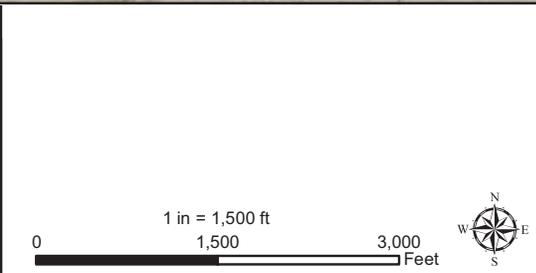


**Desert Sunlight
Solar Farm Project**

**Figure 4-2
Red Bluff
Substation -
Alternative B
Detail Map**



Project: 60149119-100
Date: March 2010



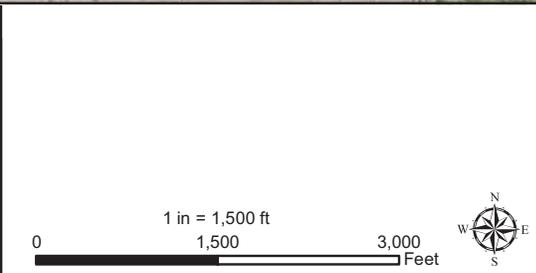
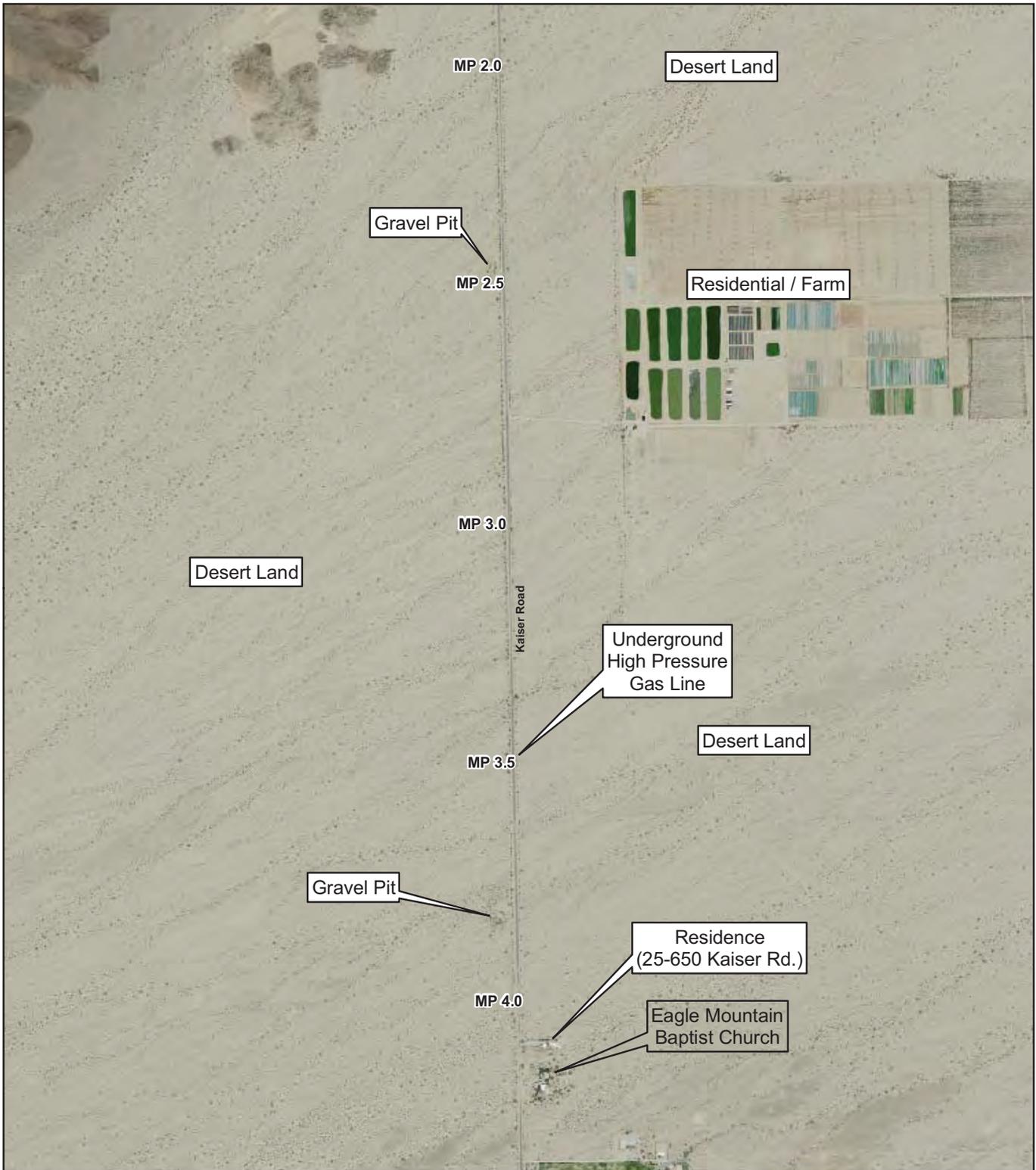
**Desert Sunlight
Solar Farm Project**

**Figure 3-2a
Gen-Tie Line –
Alternative A1
Mapsheets 1 of 6**




Project: 60149119-100
Date: April 2010

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Desert Sunlight Solar Farm Project

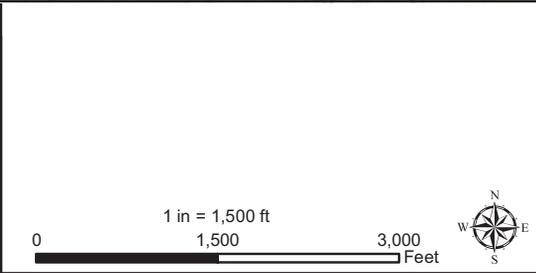
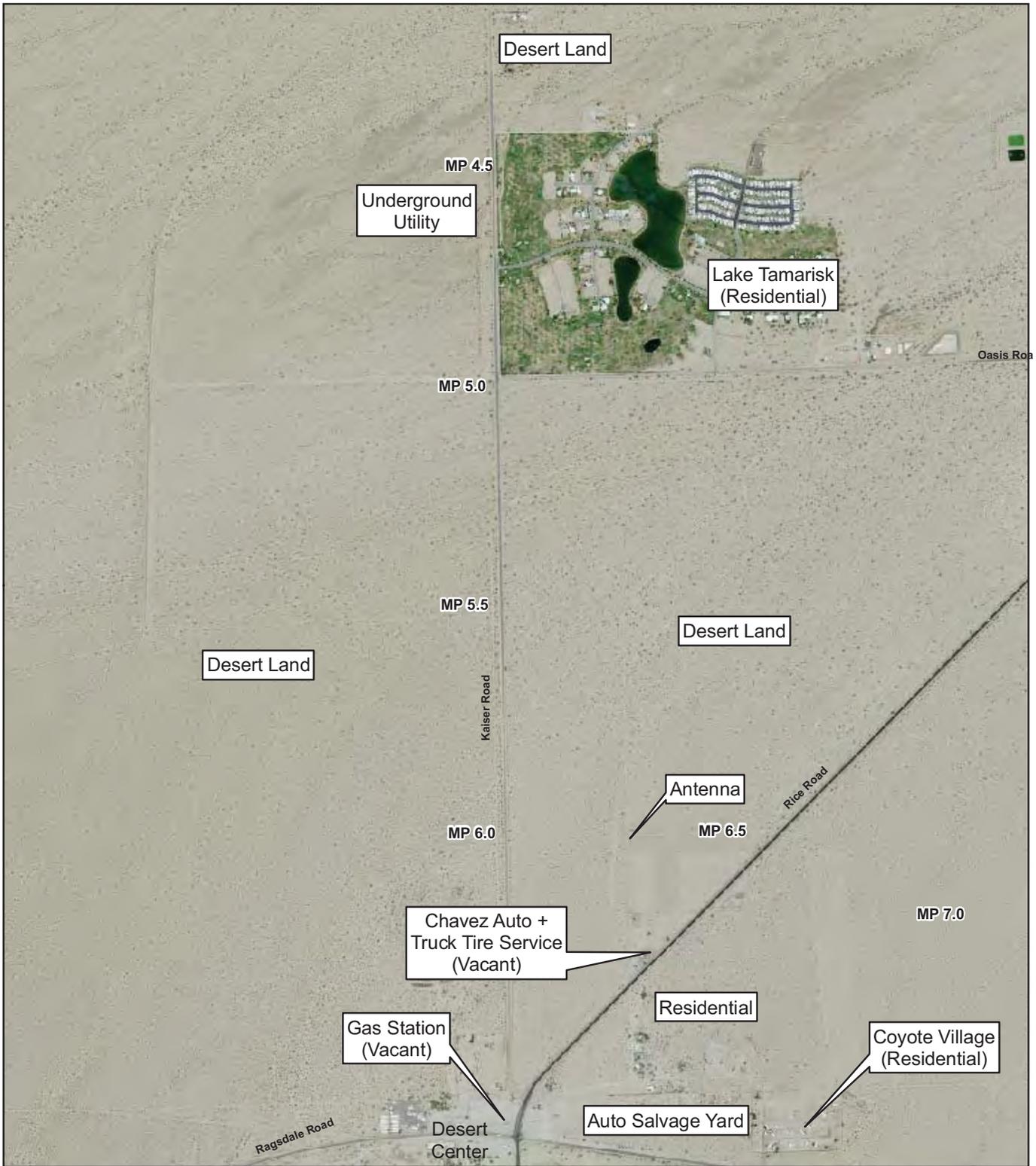
**Figure 3-2b
 Gen-Tie Line –
 Alternative A1
 Mapsheet 2 of 6**

First Solar.

AECOM

Project: 60149119-100
 Date: April 2010

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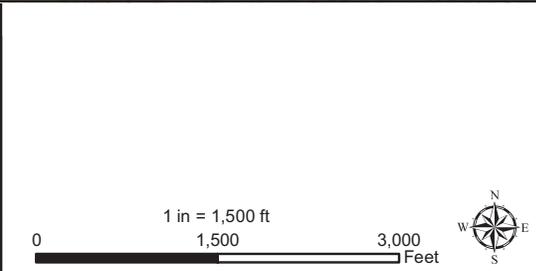
Desert Sunlight Solar Farm Project

**Figure 3-2c
Gen-Tie Line –
Alternative A1
Mapsheet 3 of 6**




Project: 60149119-100
Date: April 2010

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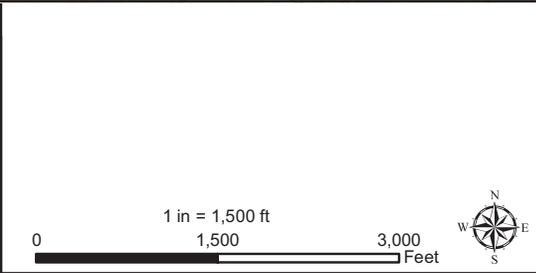
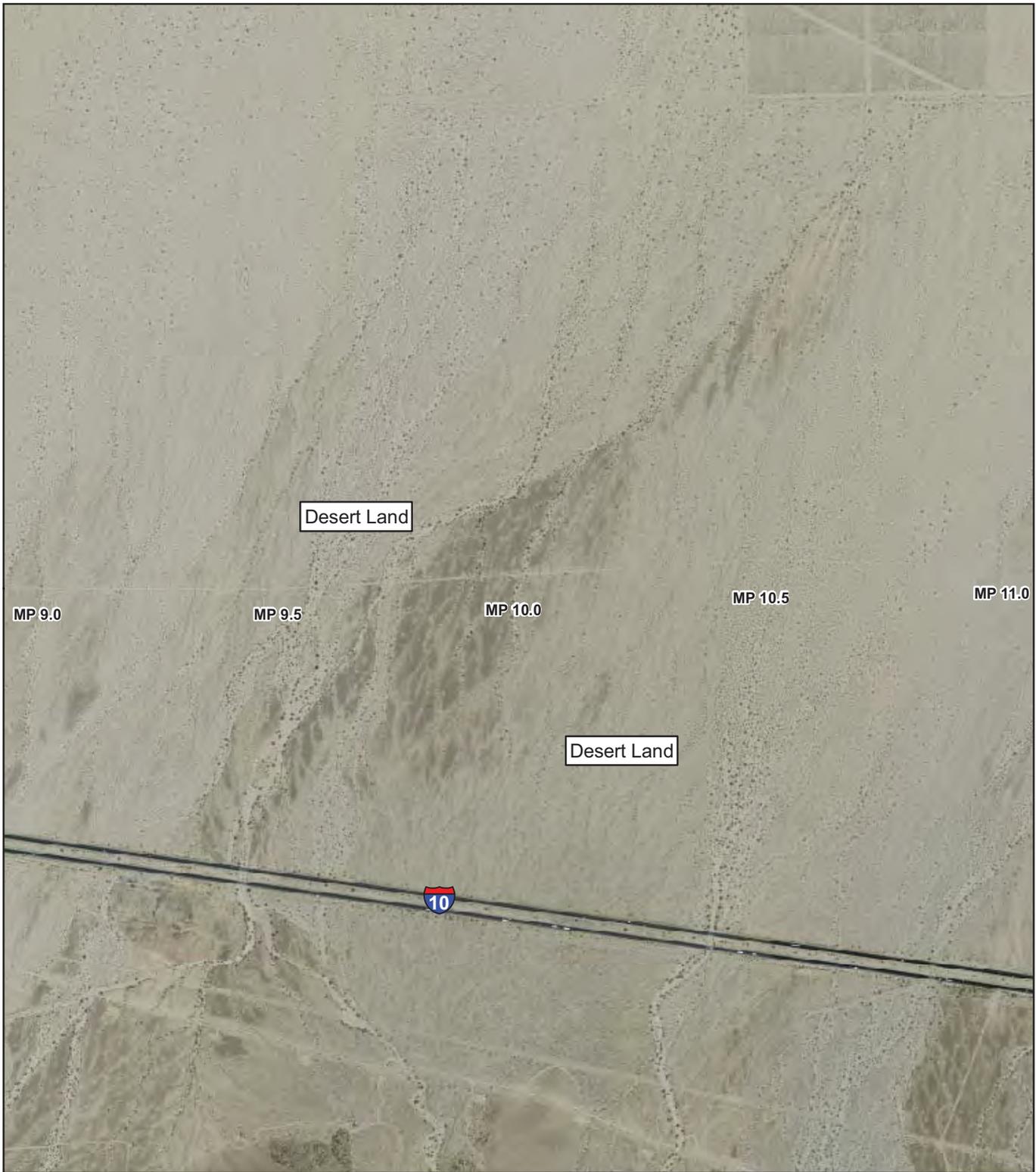
**Desert Sunlight
Solar Farm Project**

**Figure 3-2d
Gen-Tie Line –
Alternative A1
Mapsheet 4 of 6**




Project: 60149119-100
Date: April 2010

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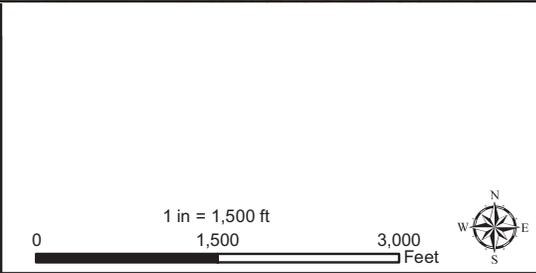
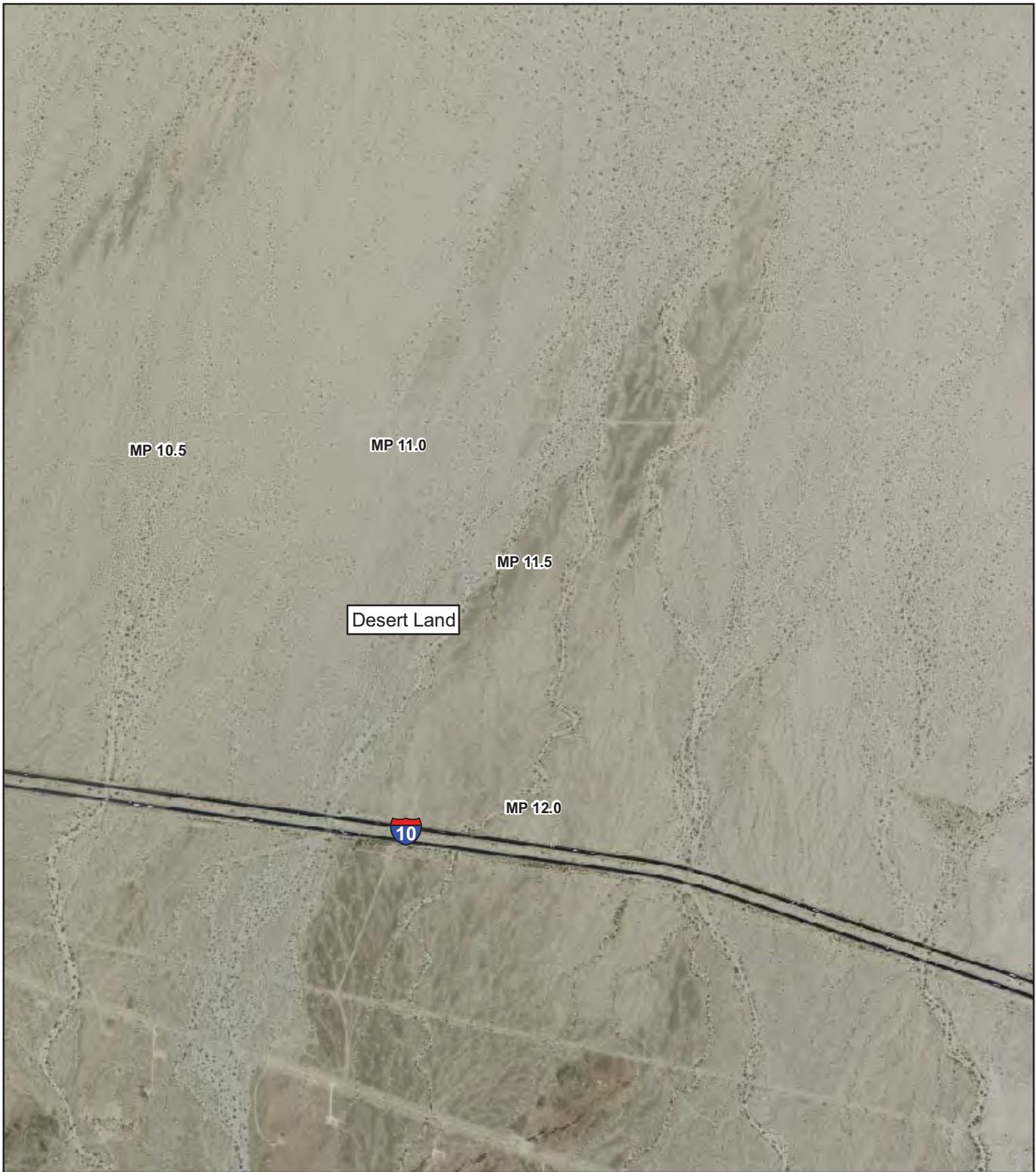
**Desert Sunlight
Solar Farm Project**

**Figure 3-2e
Gen-Tie Line –
Alternative A1
Mapsheets 5 of 6**




Project: 60149119-100
Date: April 2010

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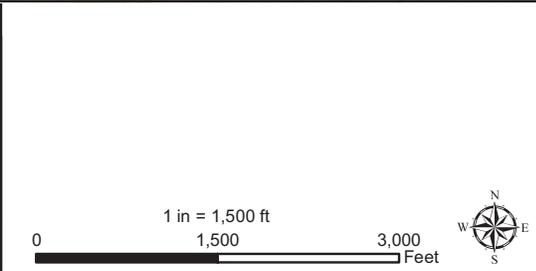
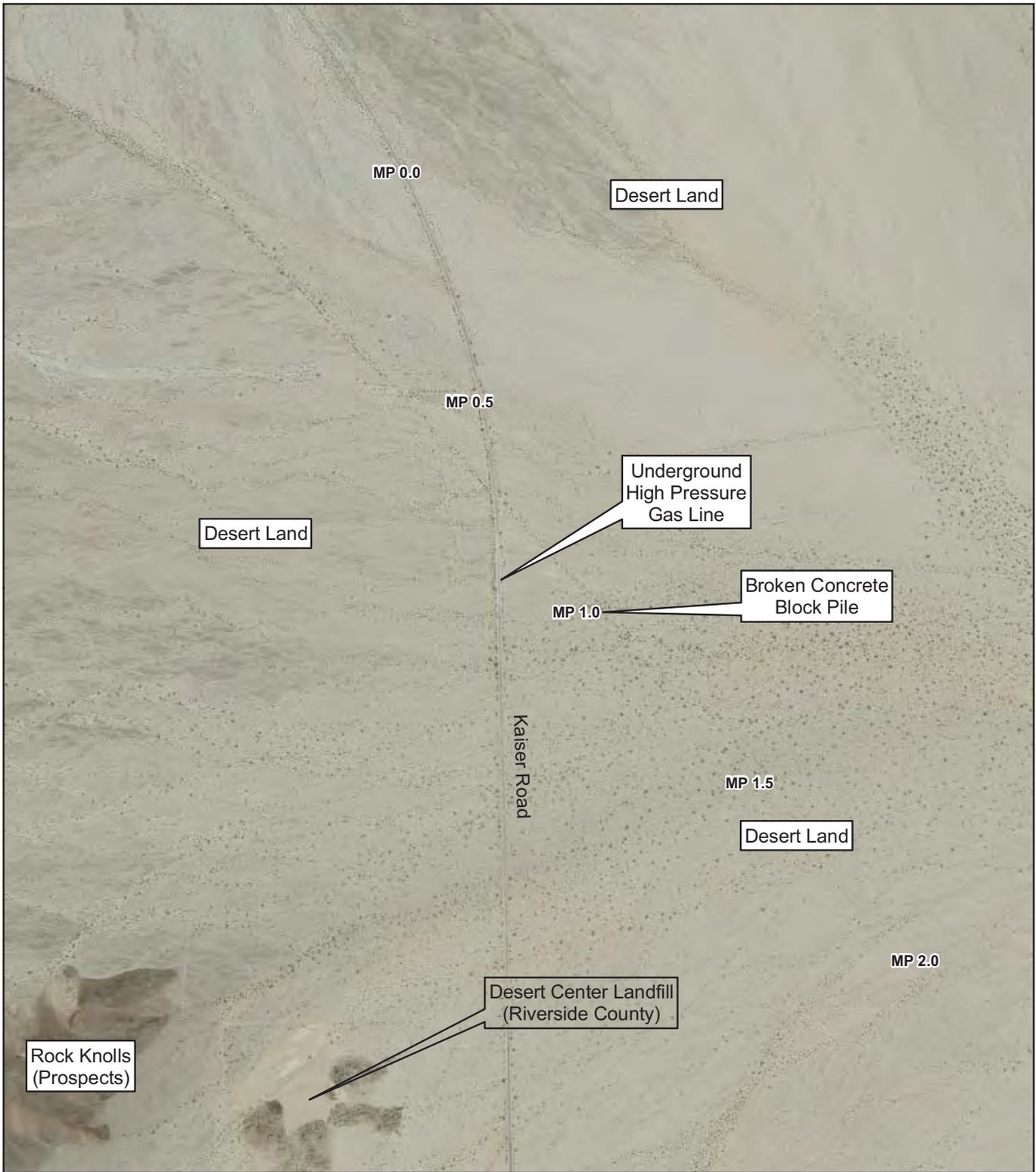
**Desert Sunlight
Solar Farm Project**

**Figure 3-2f
Gen-Tie Line –
Alternative A1
Mapsheet 6 of 6**




Project: 60149119-100
Date: April 2010

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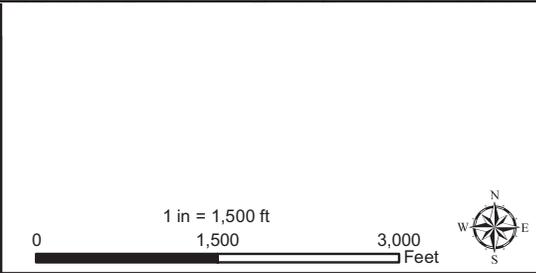
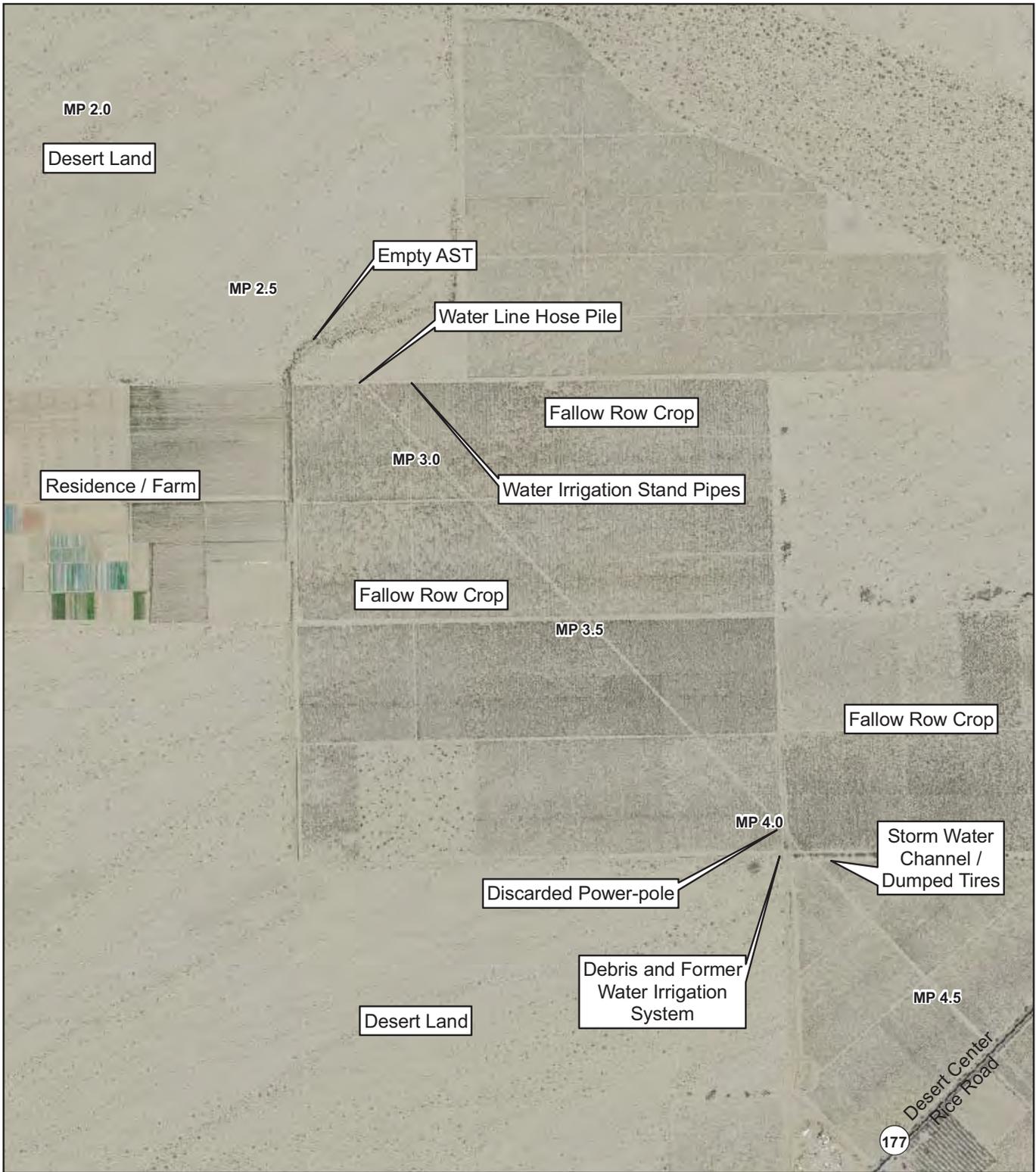


**Desert Sunlight
Solar Farm Project**

**Figure 3-3a
Gen-Tie Line –
Alternative A2
Mapsheets 1 of 4**

Project: 60149119-100
Date: April 2010

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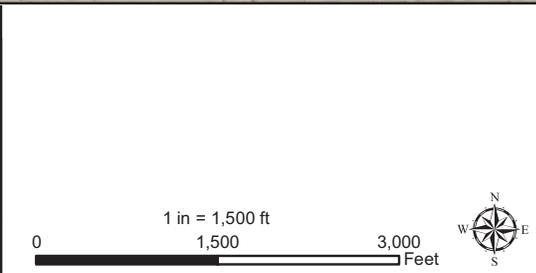
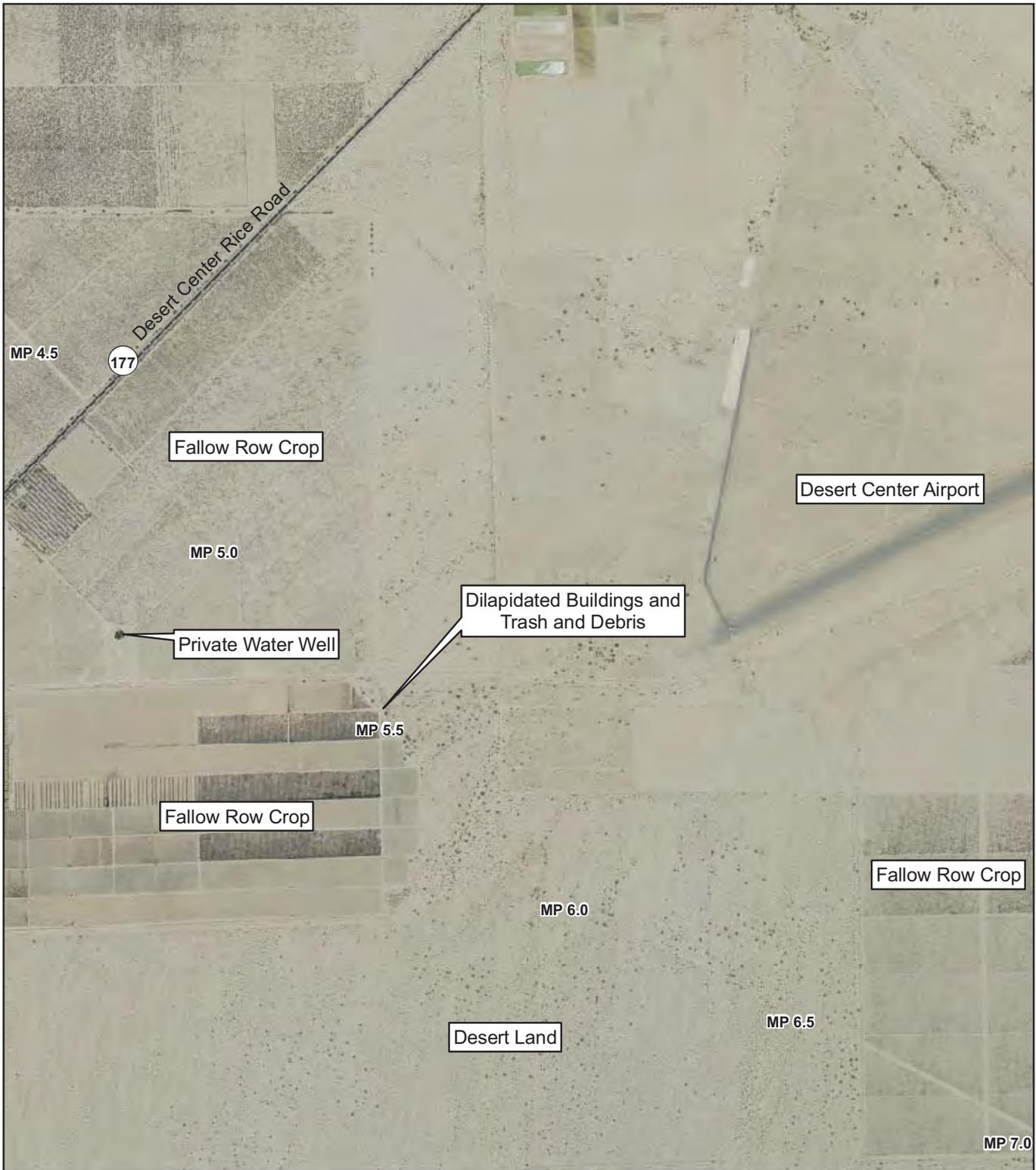
Desert Sunlight Solar Farm Project

**Figure 3-3b
Gen-Tie Line –
Alternative A2
Mapsheets 2 of 4**




Project: 60149119-100
Date: April 2010

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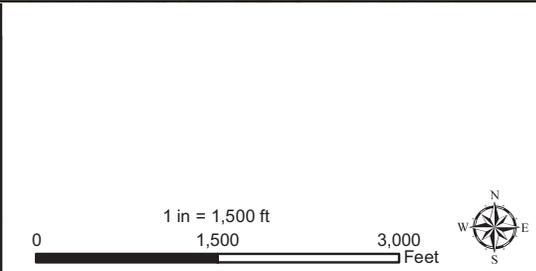
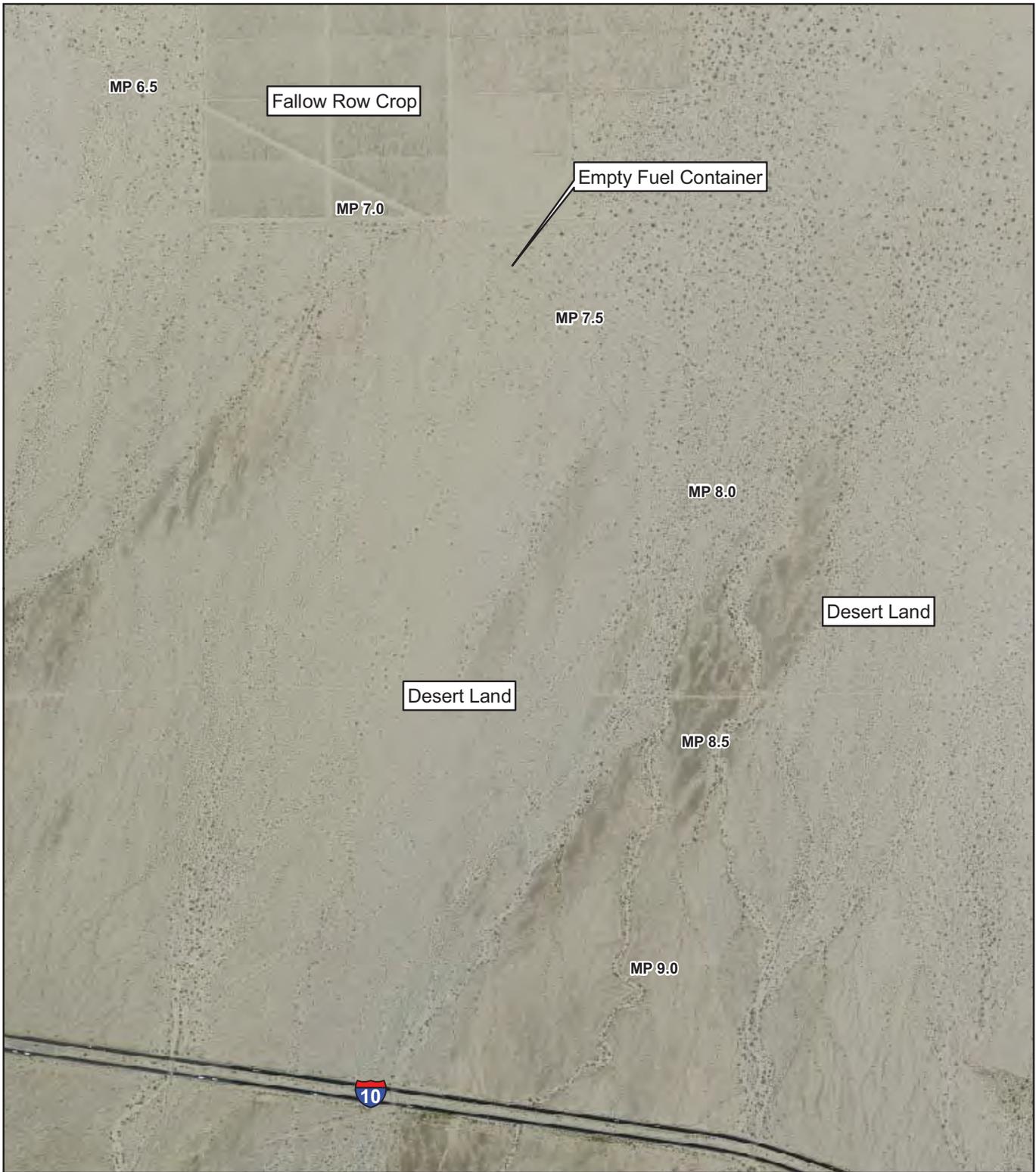
Desert Sunlight Solar Farm Project

**Figure 3-3c
Gen-Tie Line –
Alternative A2
Mapsheets 3 of 5**




Project: 60149119-100
Date: April 2010

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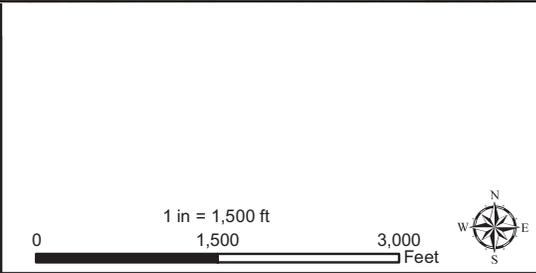
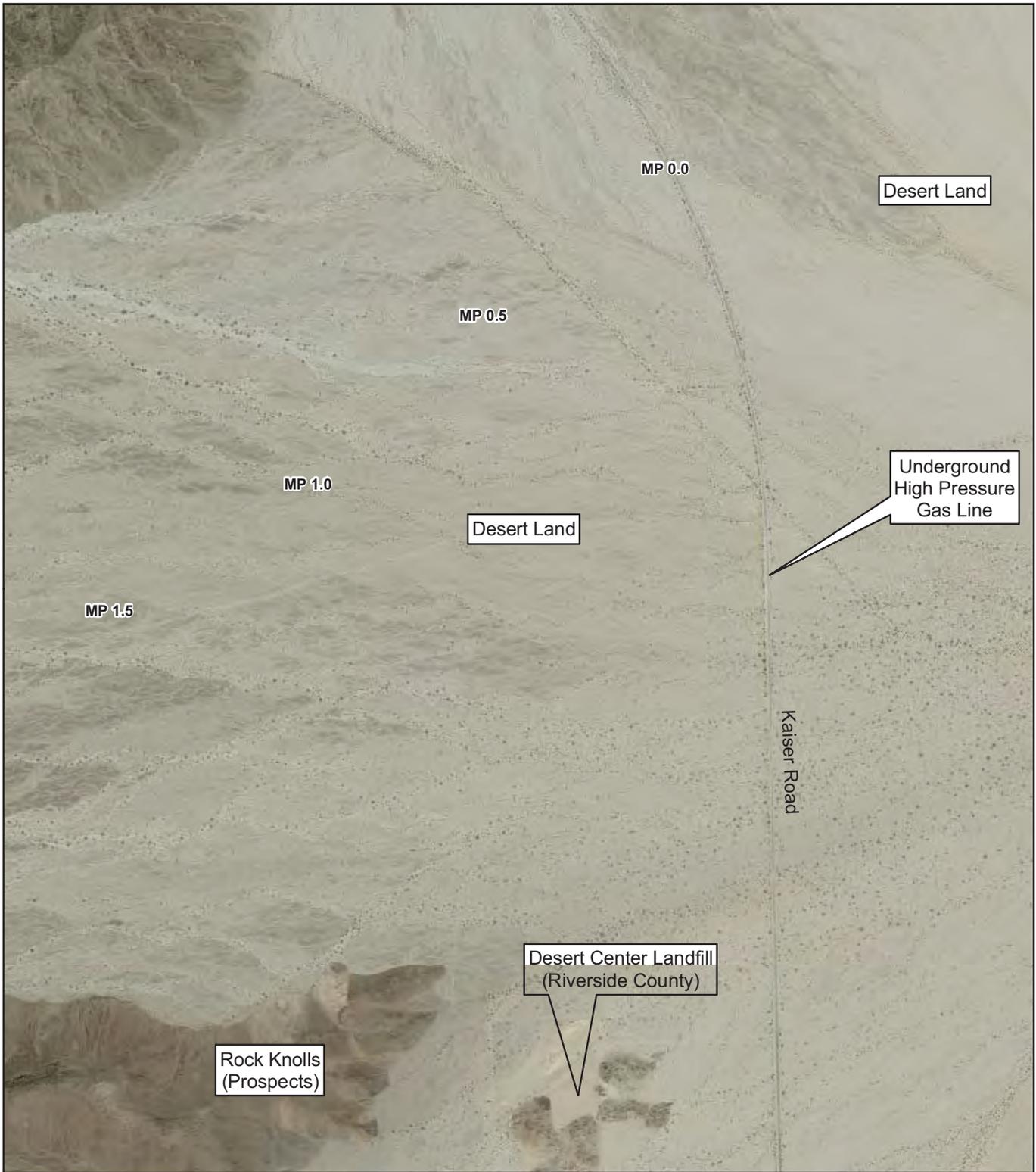
**Desert Sunlight
Solar Farm Project**

**Figure 3-3d
Gen-Tie Line –
Alternative A2
Mapsheets 4 of 4**




Project: 60149119-100
Date: April 2010

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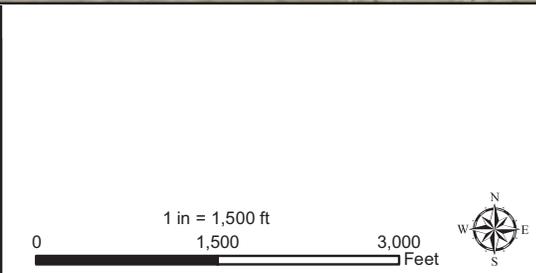
**Desert Sunlight
Solar Farm Project**

**Figure 3-4a
Gen-Tie Line –
Alternative B1
Mapsheets 1 of 4**




Project: 60149119-100
Date: April 2010

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**Desert Sunlight
Solar Farm Project**

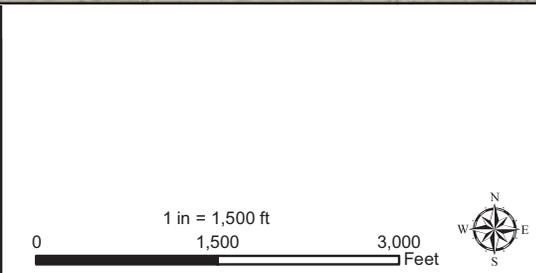
**Figure 3-4b
Gen-Tie Line –
Alternative B1
Mapsheets 2 of 4**

First Solar.

AECOM

Project: 60149119-100
Date: April 2010

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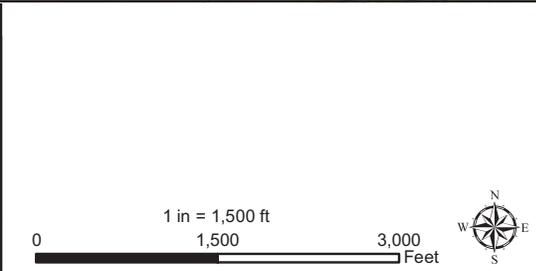
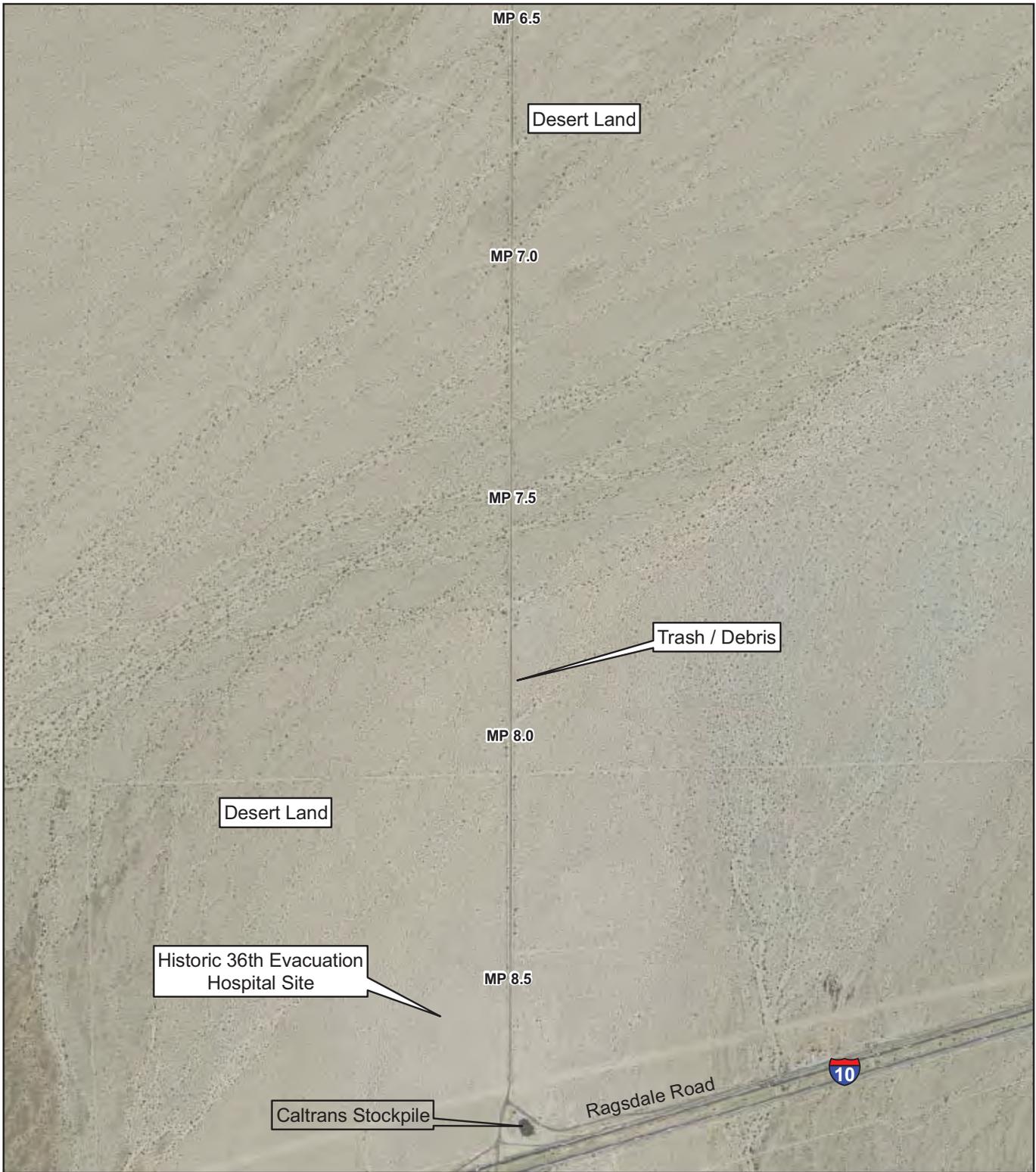
**Desert Sunlight
Solar Farm Project**

**Figure 3-4c
Gen-Tie Line –
Alternative B1
Mapsheets 3 of 4**




Project: 60149119-100
Date: April 2010

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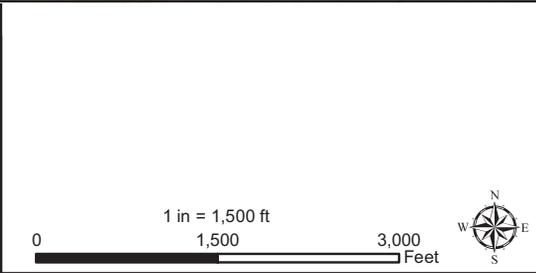
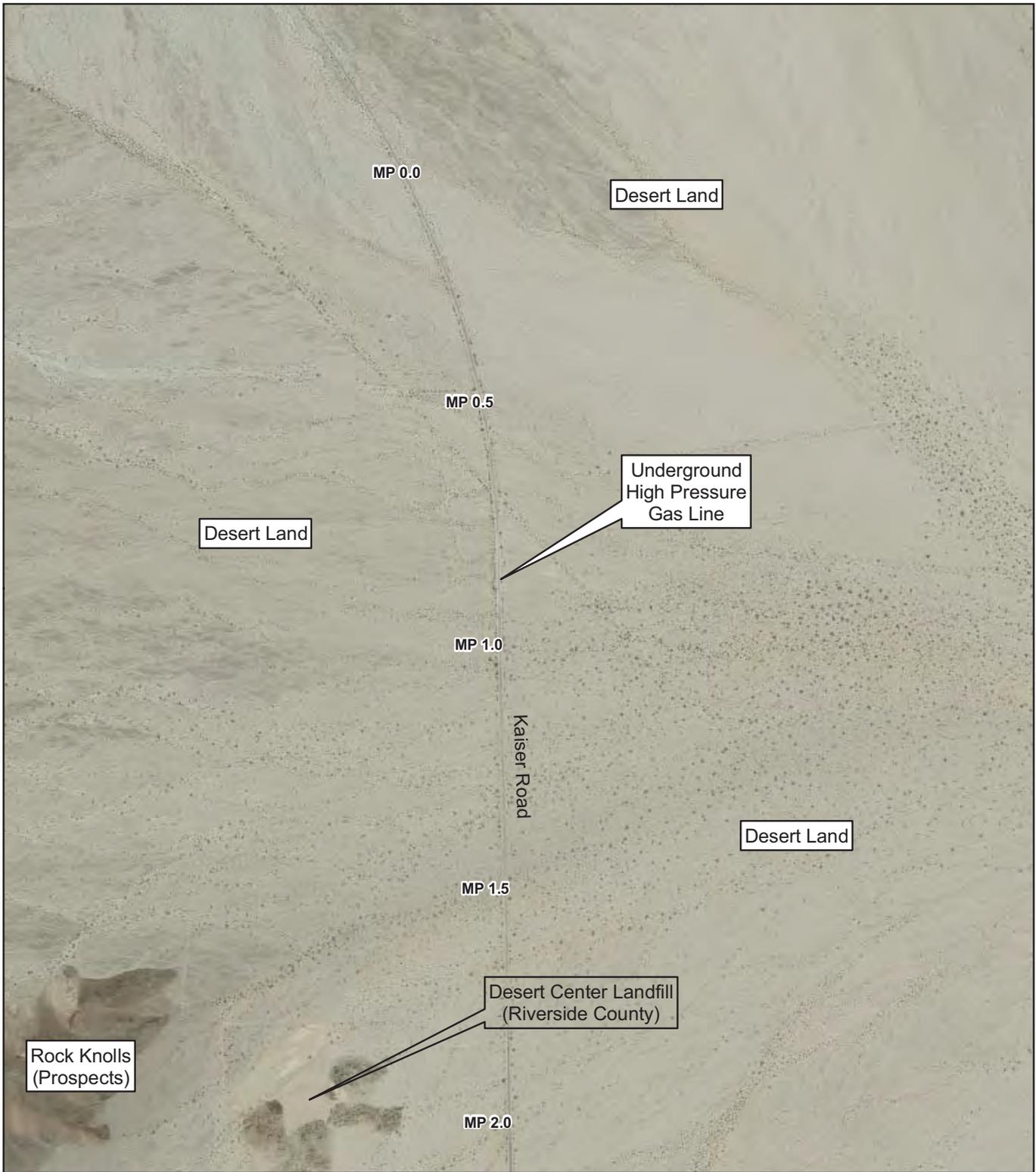
Desert Sunlight Solar Farm Project

Figure 3-4d Gen-Tie Line – Alternative B1 Mapsheet 4 of 4




Project: 60149119-100
Date: April 2010

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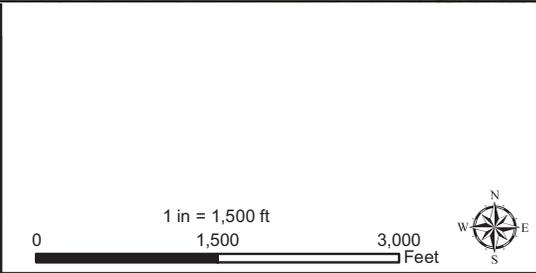
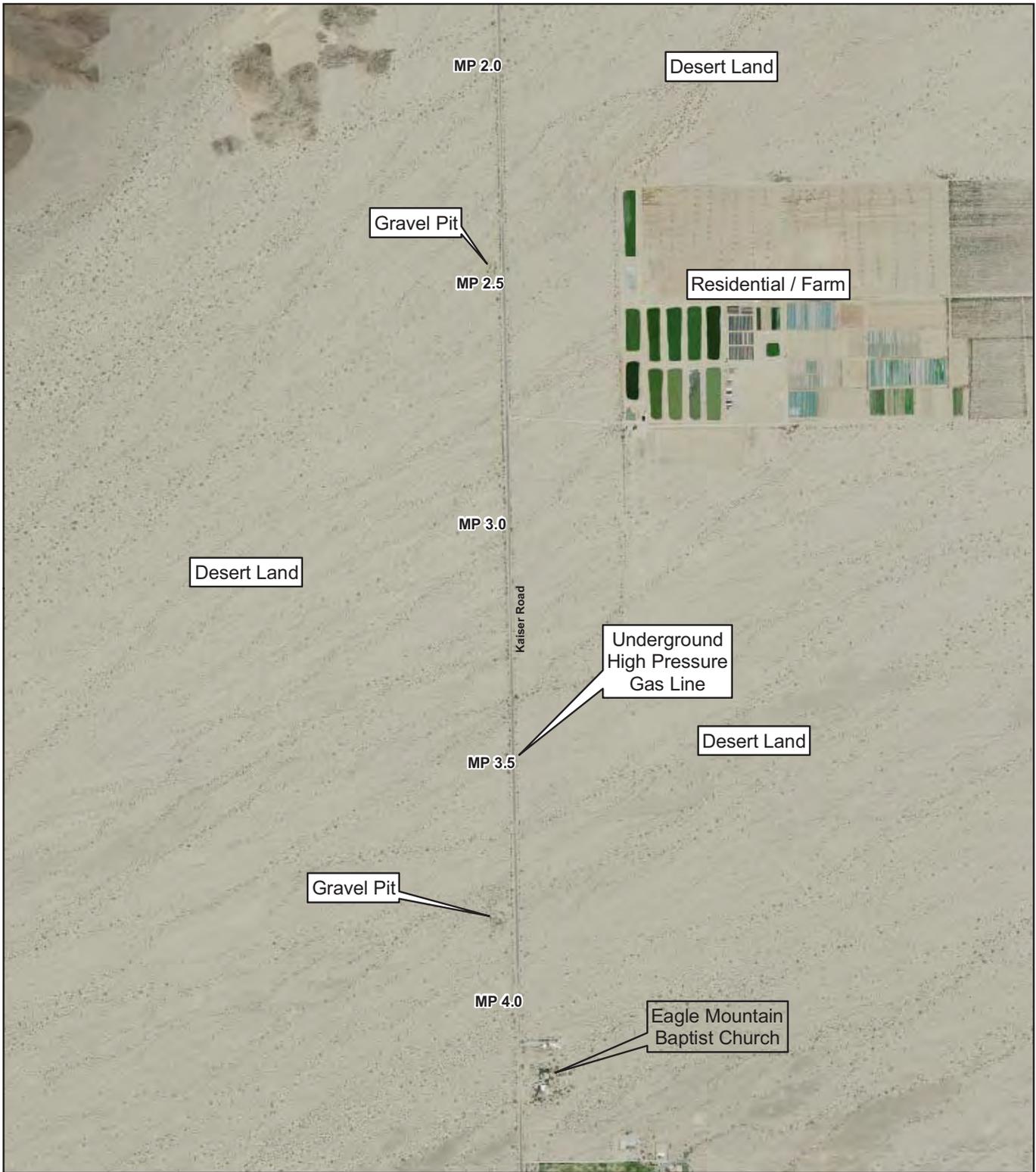
**Desert Sunlight
Solar Farm Project**

**Figure 3-5a
Gen-Tie Line –
Alternative B2
Mapsheets 1 of 5**




Project: 60149119-100
Date: April 2010

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**Desert Sunlight
Solar Farm Project**

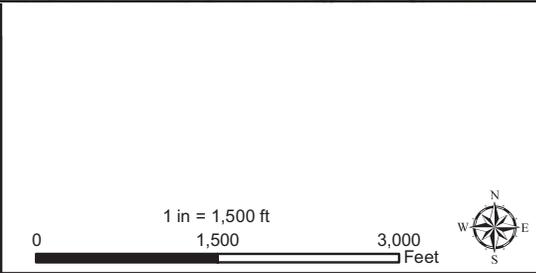
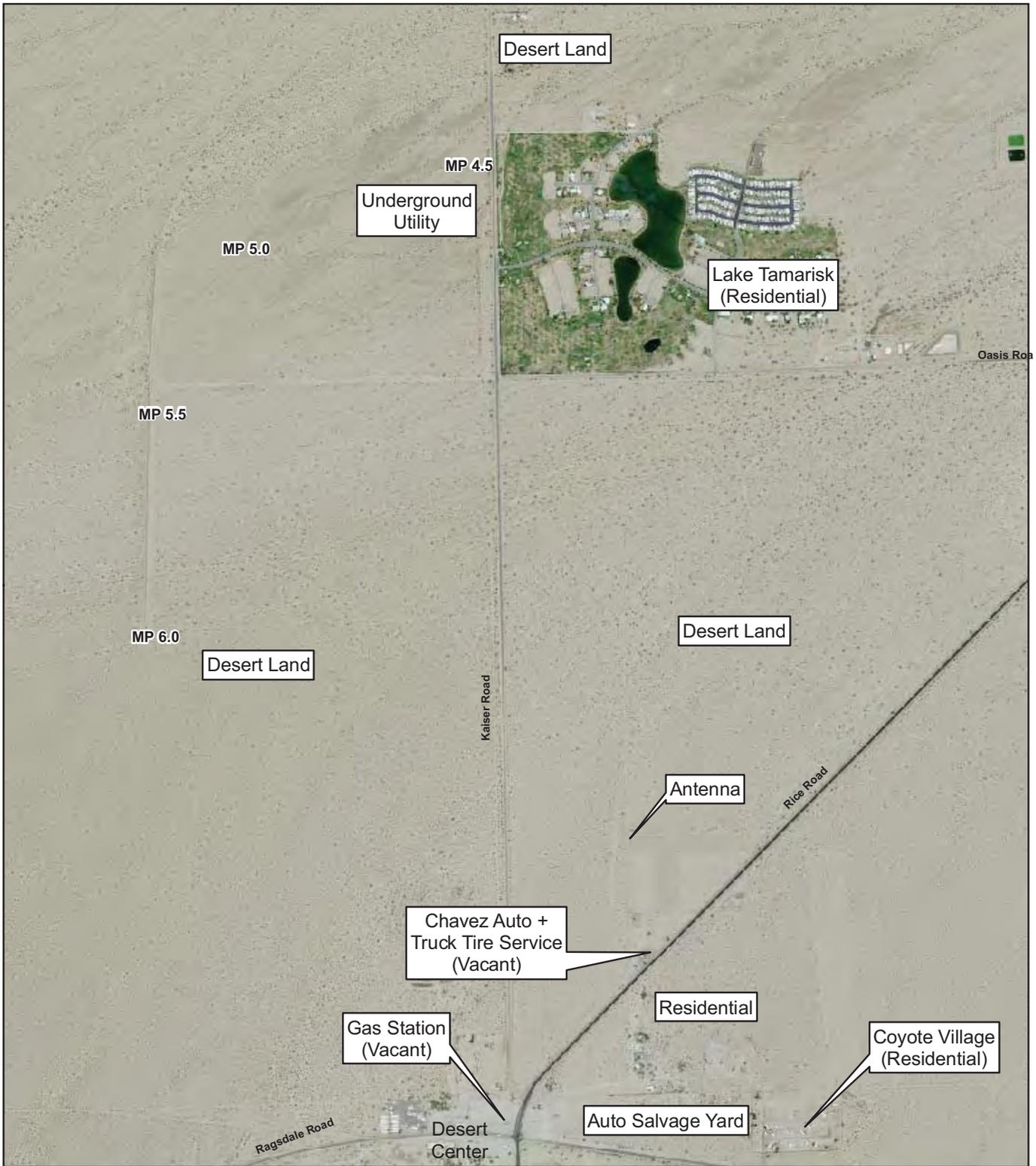
**Figure 3-5b
Gen-Tie Line –
Alternative B2
Mapsheets 2 of 5**

First Solar.

AECOM

Project: 60149119-100
Date: April 2010

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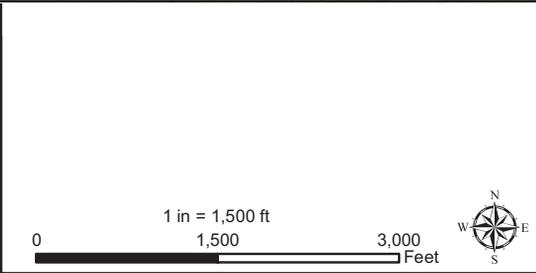
Desert Sunlight Solar Farm Project

**Figure 3-5c
Gen-Tie Line –
Alternative B2
Mapsheets 3 of 5**




Project: 60149119-100
Date: April 2010

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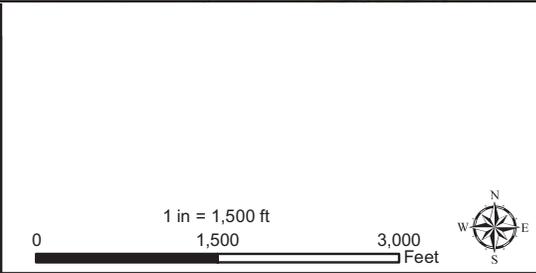
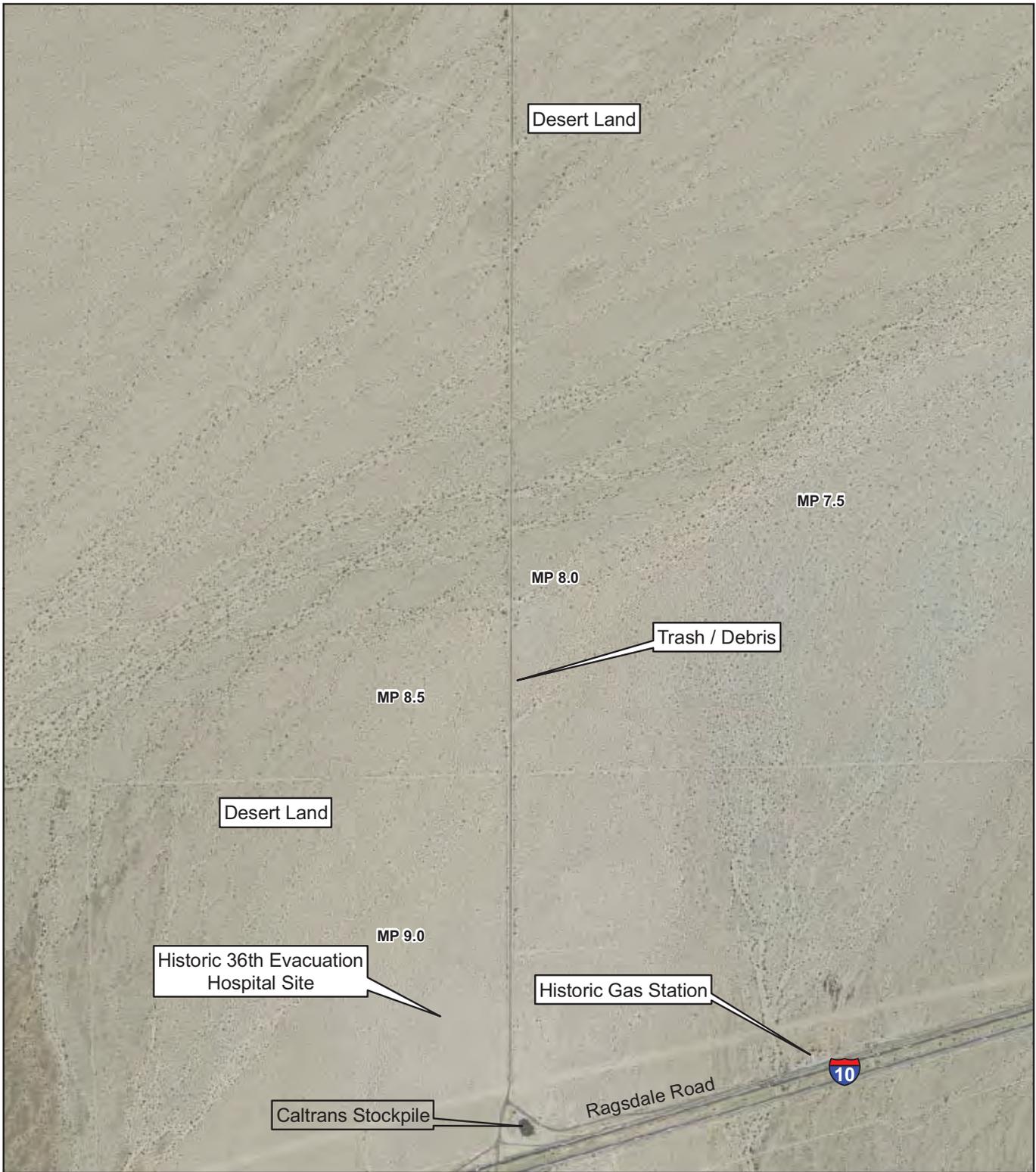
**Desert Sunlight
Solar Farm Project**

**Figure 3-5d
Gen-Tie Line –
Alternative B2
Mapsheet 4 of 5**




Project: 60149119-100
Date: April 2010

J:\GIS\Projects\12414-First_Solar\011-Desert_Sunlight\mxd\Phase_1\Figure_3-5_RouteB2_map-d.mxd



**Desert Sunlight
Solar Farm Project**

**Figure 3-5d
Gen-Tie Line –
Alternative B2
Mapsheets 5 of 5**




Project: 60149119-100
Date: April 2010

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Appendix A

Representative Site Photographs

PHOTOGRAPHIC LOG

Client Name: First Solar		Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
Photo No. 1	Date: 03/02/10		
Direction Photo Taken: West			
Description: View of the northern portion of the solar farm site from Powerline Road.			
Photo No. 2	Date: 03/02/10		
Direction Photo Taken: East			
Description: View of an apparent pad-locked water well located east of the solar farm site.			

PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 3	Date: 03/02/10
------------------------------	--------------------------

Direction Photo Taken:

East

Description:

View of one of two active water wells located approximately 1/4-mile east of the solar farm site.



Photo No. 4	Date: 03/02/10
------------------------------	--------------------------

Direction Photo Taken:

North

Description:

Typical view of the gen-tie line - alternative A1 and gen-tie line - alternative B2 (approximate mileage point 0.5).



PHOTOGRAPHIC LOG

Client Name: First Solar		Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
Photo No. 5	Date: 03/02/10		
Direction Photo Taken: North			
Description: View of the gen-tie line - alternative A1 and gen-tie line - alternative B2 (approximate mileage point 5.0). Note Lake Tamarisk (residential) in the background (right).			
Photo No. 6	Date: 03/02/10		
Direction Photo Taken: West			
Description: View of the gen-tie line - alternative A1 and area of and gen-tie line - alternative B2 from Kaiser Road.			

PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 7	Date: 03/02/10
------------------------------	--------------------------

Direction Photo Taken:

North

Description:

View of the vacant Chavez Auto and Truck.



Photo No. 8	Date: 03/02/10
------------------------------	--------------------------

Direction Photo Taken:

North

Description:

View of the gen-tie line - alternative A1 from Interstate 10.



PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 9	Date: 04/09/10	
Direction Photo Taken: South		
Description: View of the approximate location of substation site – alternative A from the western side of the site.		

Photo No. 10	Date: 03/02/10	
Direction Photo Taken: Southeast		
Description: View of the approximate location of substation site – alternative B from the northern portion of the site.		

PHOTOGRAPHIC LOG

Client Name: First Solar		Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
Photo No. 11	Date: 03/02/10		
Direction Photo Taken: North			
Description: View of the gen-tie line - alternative B1 from mileage point 8.0.			
Photo No. 12	Date: 03/02/10		
Direction Photo Taken: South			
Description: Typical view of the gen-tie line - alternative B1 (approximate mileage point 7.8).			

PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 13	Date: 03/02/10
-------------------------------	--------------------------

Direction Photo Taken:

N/A

Description:

View of trash/debris, including rubber fan belts, one air filter, eight 1-gallon or smaller containers of lubricating oil, and one aerosol can, observed adjacent to the east of Eagle Mountain Road, at mileage point 7.9, along the gen-tie line - alternative B1.



Photo No. 14	Date: 03/02/10
-------------------------------	--------------------------

Direction Photo Taken:

East

Description:

View of a gravel pit is located adjacent to the east of Eagle Mountain Road, at mileage point 5.7, along the gen-tie line - alternative B1.



PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 15	Date: 03/02/10
-------------------------------	--------------------------

Direction Photo Taken:

South

Description:

View of Eagle Mountain Railroad crossing the gen-tie line - alternative B1, at mileage point 3.9.



Photo No. 16	Date: 03/02/10
-------------------------------	--------------------------

Direction Photo Taken:

East

Description:

View of the area of gen-tie line - alternative B1 from Eagle Mountain Road.



PHOTOGRAPHIC LOG

Client Name: First Solar		Site Location: Proposed Desert Sunlight Solar Project		Project Number: 60149119-100	
Photo No. 17	Date: 04/09/10				
Direction Photo Taken: Southeast					
Description: View of the northern portion of gen-tie line - alternative A2.					
Photo No. 18	Date: 04/09/10				
Direction Photo Taken: Northwest					
Description: View at mileage point 2.7, of an empty (presumably water) 250-gallon aluminum AST, dumped along the eastern side of the gen-tie line - alternative A2 and was used for target-shooting.					

PHOTOGRAPHIC LOG

Client Name: First Solar		Site Location: Proposed Desert Sunlight Solar Project		Project Number: 60149119-100
Photo No. 19	Date: 04/09/10			
Direction Photo Taken: Southeast				
Description: Representative view of gen-tie line - alternative A2 traversing through fallow row crop.				
Photo No. 20	Date: 04/09/10			
Direction Photo Taken: North				
Description: View of an approximate (presumably water) 5,000-gallon bunked UST, presumably used for a former irrigation water pumping system in the vicinity. Located along the west side of gen-tie line - alternative A2 at mileage point 4.1.				

PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 21	Date: 04/09/10
-------------------------------	--------------------------

Direction Photo Taken:

Southeast

Description:

View at mileage point 4.2, of approximately 24 tires dumped (some partially buried) along the east side of the gen-tie line - alternative A2, in the storm water channel, that traverses across the gen-tie line - alternative A2.



Photo No. 22	Date: 04/09/10
-------------------------------	--------------------------

Direction Photo Taken:

Northwest

Description:

View at mileage point 6.5, of trash and debris located on the east side of the gen-tie line - alternative A2.



PHOTOGRAPHIC LOG

Client Name: First Solar	Site Location: Proposed Desert Sunlight Solar Project	Project Number: 60149119-100
------------------------------------	---	--

Photo No. 23	Date: 04/09/10
-------------------------------	--------------------------

Direction Photo Taken:

East

Description:

View at mileage point 6.5, of two dilapidated approximate 500-square foot buildings located on the east side of the gen-tie line - alternative A2.



Photo No. 24	Date: 04/09/10
-------------------------------	--------------------------

Direction Photo Taken:

North

Description:

View of one empty rusted metal 5-gallon fuel container located along the north side of the gen-tie line - alternative A2 at approximate mileage point 7.8.



APPENDIX B

Environmental Database Search Report

TRACK ► INFO SERVICES, LLC

Environmental FirstSearch™ Report

Target Property:

DESERT SUNLIGHT 2

DESERT CENTER CA 92239

Job Number: PDSSF2

PREPARED FOR:

AECOM

1220 Avenita Acaso

Camarillo, CA 93012

805-388-3775

04-12-10



Tel: (866) 664-9981

Fax: (818) 249-4227

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**Environmental FirstSearch
Site Information Report**

Request Date: 04-12-10
Requestor Name: AECOM - Fickerson
Standard: ASTM-05

Search Type: AREA
 32.00 sq mile(s)
Job Number: PDSSF2
Filtered Report

Target Site: DESERT SUNLIGHT 2
 DESERT CENTER CA 92239

Demographics

Sites: 31	Non-Geocoded: 30	Population: NA
Radon: NA		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
Longitude:	-115.382405	-115:22:57	Easting: 649747.74
Latitude:	33.796458	33:47:47	Northing: 3740570.239
			Zone: 11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)	Services:																																		
<table border="1"> <thead> <tr> <th>ZIP Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	ZIP Code	City Name	ST	Dist/Dir	Sel						<table border="1"> <thead> <tr> <th></th> <th>Requested?</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Sanborns</td> <td>No</td> <td></td> </tr> <tr> <td>Aerial Photographs</td> <td>Yes</td> <td>04/12/10</td> </tr> <tr> <td>Historical Topos</td> <td>No</td> <td></td> </tr> <tr> <td>City Directories</td> <td>No</td> <td></td> </tr> <tr> <td>Title Search/Env Liens</td> <td>No</td> <td></td> </tr> <tr> <td>Municipal Reports</td> <td>No</td> <td></td> </tr> <tr> <td>Online Topos</td> <td>No</td> <td></td> </tr> </tbody> </table>		Requested?	Date	Sanborns	No		Aerial Photographs	Yes	04/12/10	Historical Topos	No		City Directories	No		Title Search/Env Liens	No		Municipal Reports	No		Online Topos	No	
ZIP Code	City Name	ST	Dist/Dir	Sel																															
	Requested?	Date																																	
Sanborns	No																																		
Aerial Photographs	Yes	04/12/10																																	
Historical Topos	No																																		
City Directories	No																																		
Title Search/Env Liens	No																																		
Municipal Reports	No																																		
Online Topos	No																																		

Environmental FirstSearch Search Summary Report

Target Site: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-23-10	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	02-23-10	0.50	0	0	0	0	-	0	0
CERCLIS	Y	01-29-10	0.50	0	0	0	0	-	0	0
NFRAP	Y	01-29-10	0.50	0	0	0	0	-	1	1
RCRA COR ACT	Y	02-16-10	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	02-16-10	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	02-16-10	0.25	0	0	0	-	-	2	2
RCRA NLR	Y	02-16-10	0.12	0	0	-	-	-	0	0
Federal IC / EC	Y	01-19-10	0.25	0	0	0	-	-	0	0
ERNS	Y	02-08-10	0.12	0	0	-	-	-	7	7
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	1	1
State/Tribal Sites	Y	02-08-10	1.00	0	0	0	0	0	0	0
State Spills 90	Y	03-11-10	0.12	0	0	-	-	-	0	0
State/Tribal SWL	Y	02-22-10	0.50	0	0	0	0	-	2	2
State/Tribal LUST	Y	03-01-10	0.50	0	0	0	0	-	2	2
State/Tribal UST/AST	Y	05-13-09	0.25	1	0	0	-	-	10	11
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	03-02-10	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	02-08-10	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	NA	0.50	0	0	0	0	-	0	0
State Permits	Y	02-19-10	0.25	0	0	0	-	-	2	2
State Other	Y	02-08-10	0.25	0	0	0	-	-	3	3
- TOTALS -				1	0	0	0	0	30	31

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

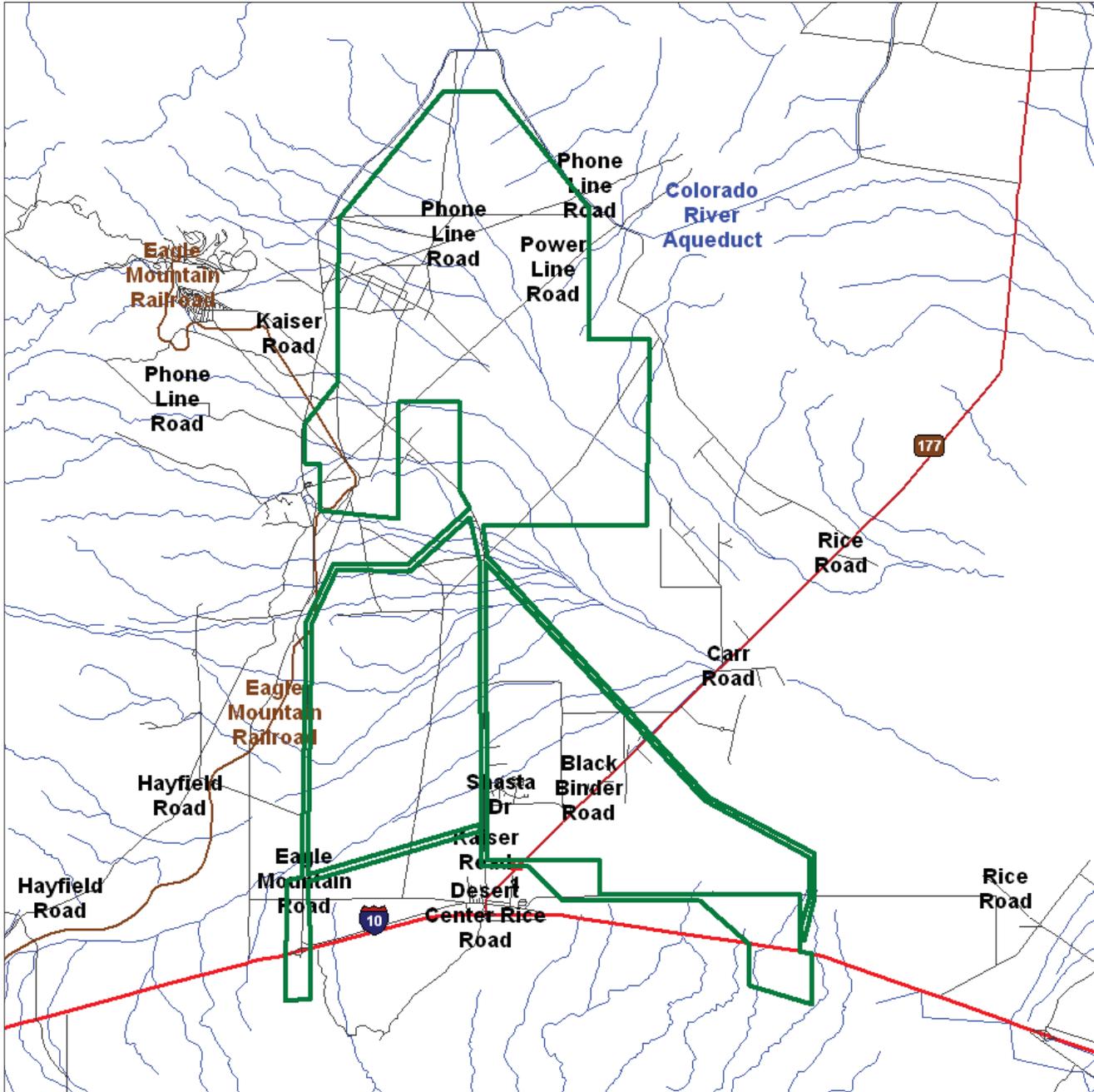


Environmental FirstSearch

1 Mile Radius from Area
Single Map:



DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

- Area Polygon
- Identified Site, Multiple Sites, Receptor
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
- Triballand.....
- Railroads



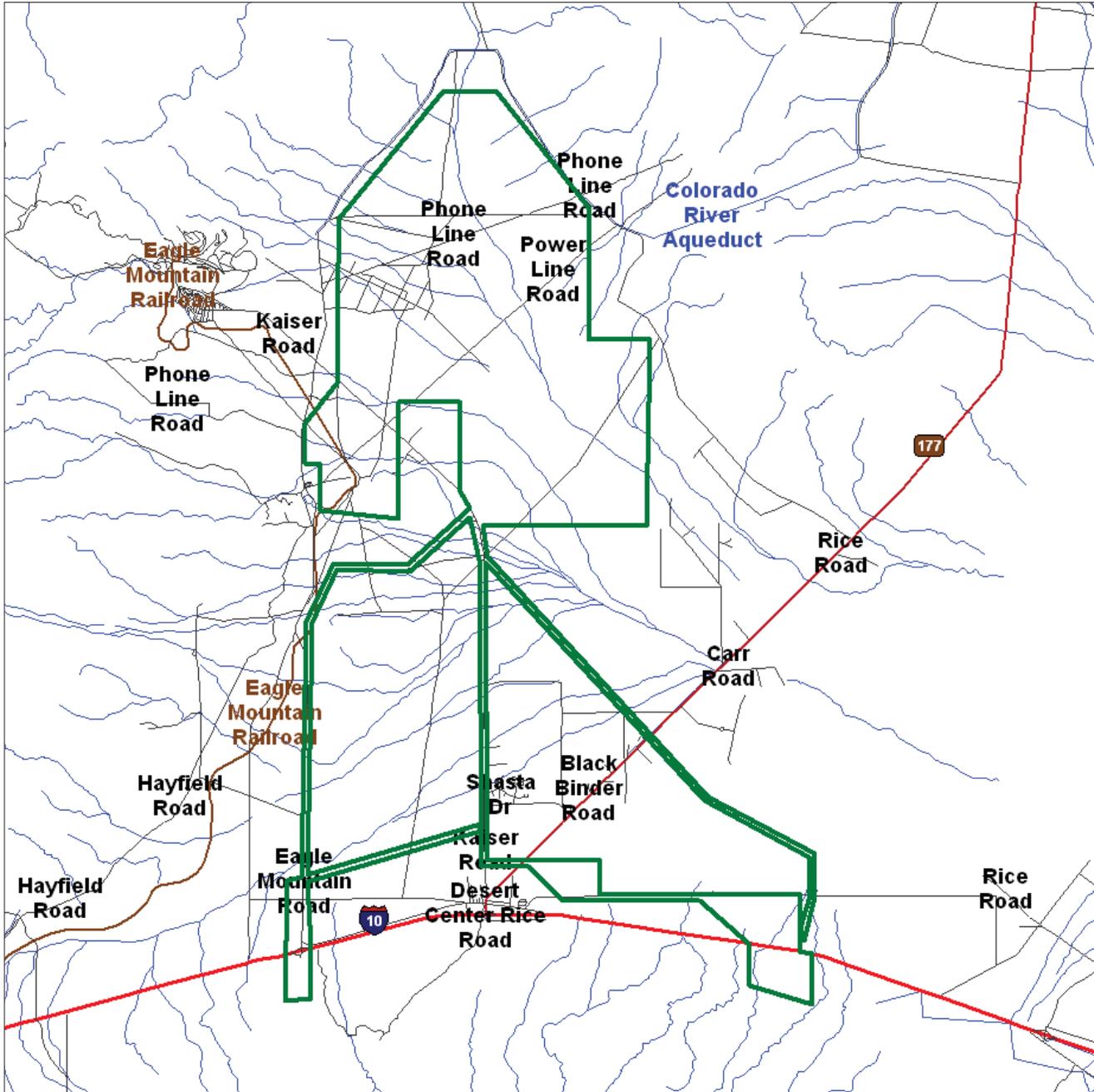


Environmental FirstSearch

1 Mile Radius from Area
ASTM-05: NPL, RCRA/COR, STATE



DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

Area Polygon	
Identified Site, Multiple Sites, Receptor	
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste	
Triballand.....	
Railroads	

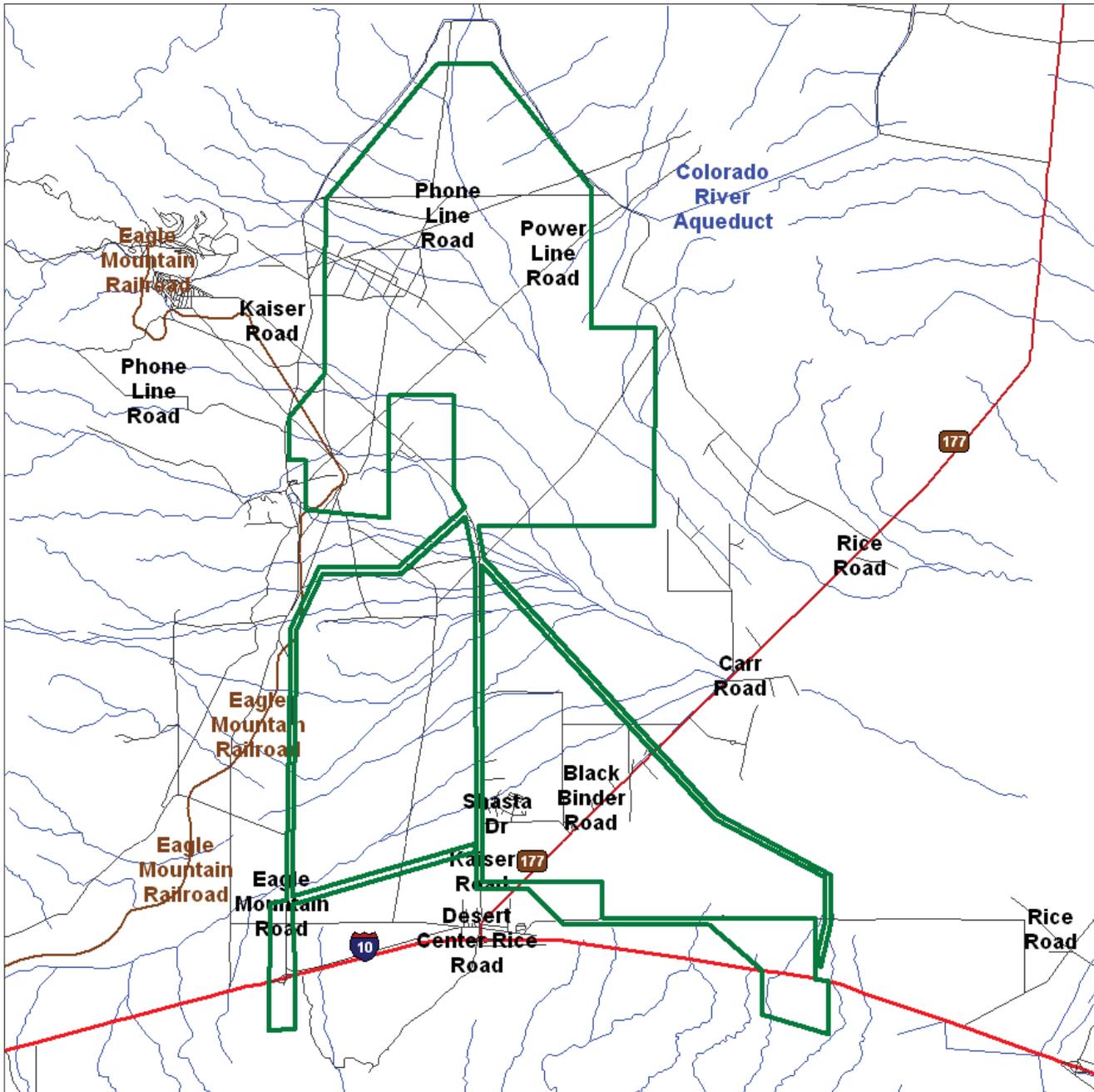


Environmental FirstSearch

.5 Mile Radius from Area
ASTM-05: Multiple Databases



DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

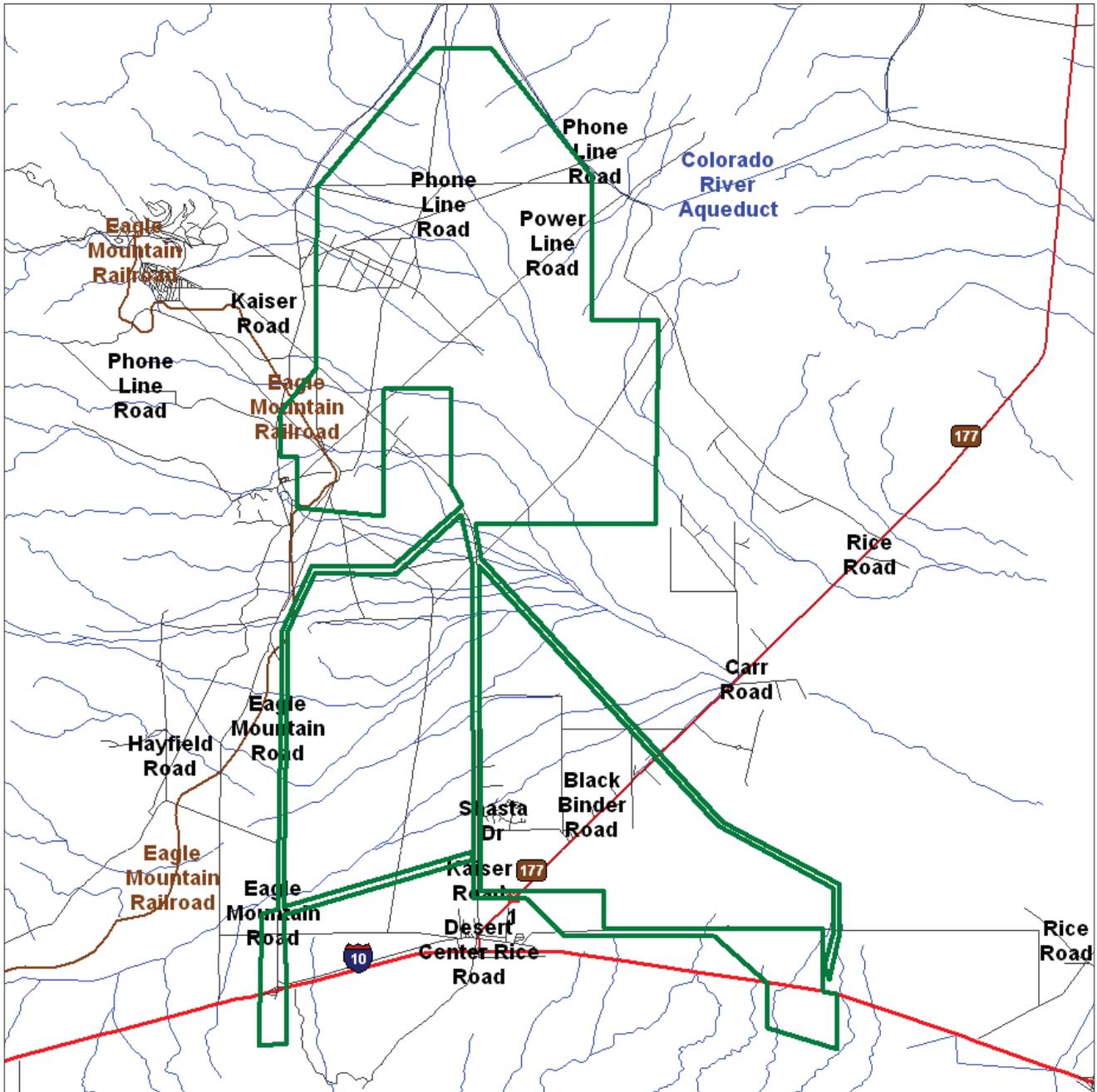
- Area Polygon
 - Identified Site, Multiple Sites, Receptor
 - NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
 - Triballand.....
 - Railroads
-



Environmental FirstSearch
 .25 Mile Radius from Area
 ASTM-05: RCRA GEN, UST, PERMITS, OTHER



DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

Area Polygon	
Identified Site, Multiple Sites, Receptor	
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste	
Triballand.....	
Railroads	

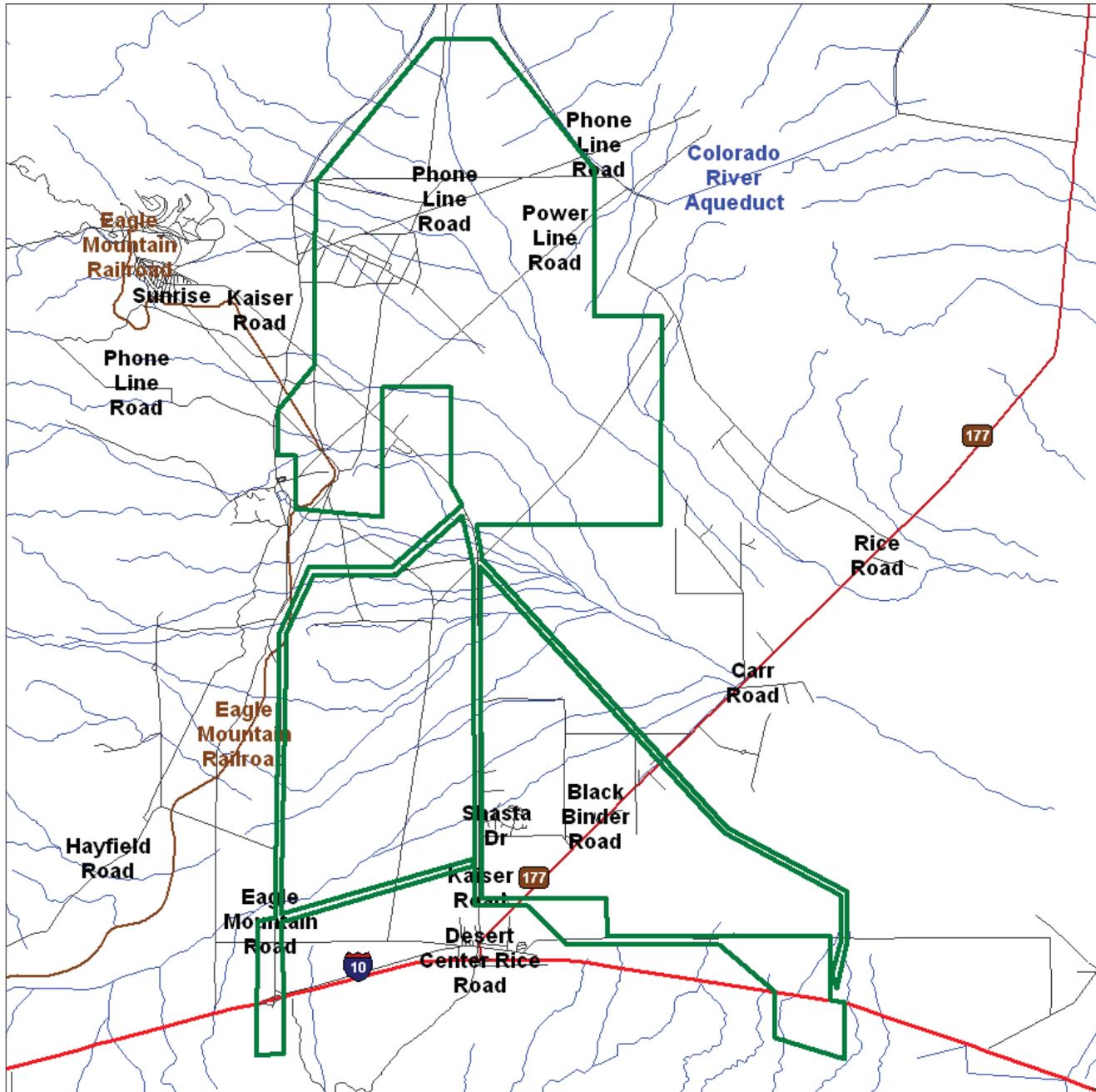


Environmental FirstSearch

.12 Mile Radius from Area
ASTM-05: SPILLS90, ERNS, RCRANLR



DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

Area Polygon	
Identified Site, Multiple Sites, Receptor	
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste	
Triballand.....	
Railroads	

***Environmental FirstSearch
Sites Summary Report***

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

TOTAL: 31 **GEOCODED:** 1 **NON GEOCODED:** 30 **SELECTED:** 31

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
<i>1</i>	<i>UST</i>	<i>DESERT DIESEL/OOB PER STEVE KEYES RIVERSIDECO82942</i>	<i>27625 RICE RD DESERT CENTER CA 92239</i>	<i>0.00 --</i>	<i>1</i>

Environmental FirstSearch Sites Summary Report

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

TOTAL: 31 **GEOCODED:** 1 **NON GEOCODED:** 30 **SELECTED:** 31

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
2	OTHER	MWD/EAGLE MOUNTAIN PUMPING RICOGEN_860/NOT REPORTED	15500 KAISER TRUCK RD DESERT CENTER CA 92239	NON GC	
2	NFRAP	KAISER EAGLE MOUNTAIN CA0000053090/NFRAP-N	N OF HWY 10 8M OFF KAISER R DESERT CENTER CA 92239	NON GC	
3	RCRAGN	EAGLE MOUNTAIN PUMPING PLANT CAD981425416/SGN	15500 KAISER TRUCK RD DESERT CENTER CA 92239	NON GC	
4	RCRAGN	SO CALIF GAS CO/DESERT CENTER STAT CAD981422561/SGN	SOUTH FRONTAGE RD DESERT CENTER CA 92239	NON GC	
5	ERNS	OFF I-10 EASTBOUND AT MILE MARKER NRC-824646/MOBILE	DESERT CENTER CA	NON GC	
8	ERNS	PROPANE TRANSPORT 400617/HIGHWAY RELATED	I-10 WESTBOUND DESERT CENTER CA	NON GC	
9	ERNS	TIME/DC INC 13327/UNKNOWN	ED I-10/1/2 MI W OF DESERT DESERT CENTER CA	NON GC	
10	ERNS	UNKNOWN 353465/HIGHWAY RELATED	EB I-10 1 MI W OF DESERT CE DESERT CENTER CA 92239	NON GC	
11	ERNS	UNKNOWN 397353/FIXED FACILITY	I-10 AND FRONTAGE ROAD (OFF DESERT CENTER CA 92239	NON GC	
12	ERNS	UNKNOWN 401239/UNKNOWN (EPA REGIONS)	INTERSTATE 10 AND FRONTAGE CHARICO CA 92239	NON GC	
13	ERNS	UNKNOWN TRUCK 73092/UNKNOWN	WB =I-10 50 MI W OF INDIO C DESERT CENTER CA	NON GC	
14	SWL	DESERT CENTER SANITARY 98-002 WMUD74330305121/ACTIVE	17-991 KAISER RD DESERT CENTER CA 92239	NON GC	
16	SWL	EAGLE MOUNTAIN LANDFILL SWIS33-AA-0228/PLANNED	10 MILES NORTH OF DESERT CE DESERT CENTER CA 92239	NON GC	
17	PERMITS	IRON MOUNTAIN PUMPING STN 86012468/ACTIVE	6001 IRON MTN PUMPING PLANT EARP CA 92239	NON GC	
18	UST	IRON MOUNTAIN PUMPING PLANT TISID-STATE40637/ACTIVE	NEAR RICE EARP CA 92239	NON GC	
19	LUST	MWD - EAGLE MOUNTAIN PUMPING PL T0606599090/COMPLETED - CASE CLO	EAGLE MOUNTAIN ROAD DESERT CENTER CA 92239	NON GC	
20	LUST	CALTRANS DESERT CENTER T060659306/COMPLETED - CASE CLO	44740 RAGSDALE ROAD DESERT CENTER CA 92239	NON GC	
22	UST	TEXACO DESERT CENTER TISID-STATE36731/ACTIVE	29560 RAGSDALE DESERT CENTER CA 92239	NON GC	
23	UST	MWD/JULIAN HINDS PUMPING PLANT TISID-STATE36856/ACTIVE	0 DESERT CENTER DESERT CENTER CA 92239	NON GC	
24	UST	MWD/EAGLE MOUNTAIN PUMPING PLT TISID-STATE36855/ACTIVE	0 DESERT CENTER DESERT CENTER CA 92239	NON GC	

Environmental FirstSearch Sites Summary Report

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

TOTAL: 31 **GEOCODED:** 1 **NON GEOCODED:** 30 **SELECTED:** 31

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
25	PERMITS	RIVERSIDE COUNTY WASTE MANAGEMENT CAH111000848/ACTIVE	17-991 KAISER RD DESERT CENTER CA 92239	NON GC	
26	UST	IRON MOUNTAIN PUMPING STN SANBERDO86012468	6001 IRON MTN PUMPING PLAN EARP CA 92239	NON GC	
27	OTHER	DESERT CENTER LANDFILL RICOGEN_856/NOT REPORTED	17991 KAISER RD DESERT CENTER CA 92239	NON GC	
27	UST	EXXON CHUCKWALLA RIVERSIDECO84410	27725 DESERT CENTER.RICE RO DESERT CENTER CA 92239	NON GC	
28	UST	EXXON CHUCKWALLA TISID-STATE36735/ACTIVE	27725 RICE DESERT CENTER CA 92239	NON GC	
29	UST	EAGLE MOUNTAIN PUMPING PLANT AST764/AST SWRCB REG.7	PO BOX 107 DESERT CENTER CA	NON GC	
29	UST	DESERT CENTER SCHOOL DIST RIVERSIDECO82935	1434 KAISER RD DESERT CENTER CA 92239	NON GC	
30	OTHER	SOUTHERN CALIFORNIA GAS COMPANY RICOGEN_858/NOT REPORTED	I-10 RICE RD DESERT CENTER CA 92239	NON GC	
30	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-92239	UNKNOWN CA 92239	NON GC	
31	UST	MWD/EAGLE MOUNTAIN PUMPING RIVERSIDECO83406	EAGLE MOUNTAIN RD DESERT CENTER CA 92239	NON GC	

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST			
SEARCH ID: 1	DIST/DIR: 0.00 --	MAP ID: 1	
NAME: DESERT DIESEL/OOB PER STEVE KEYES	REV: 04/06/2001	ID1: RIVERSIDECO82942	
ADDRESS: 27625 RICE RD DESERT CENTER CA 92239 RIVERSIDE	ID2:	STATUS:	
CONTACT:	PHONE:		
DETAILS NOT AVAILABLE			

Environmental FirstSearch Site Detail Report

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

OTHER			
SEARCH ID: 17	DIST/DIR: NON GC	MAP ID:	
NAME: MWD/EAGLE MOUNTAIN PUMPING	REV: 09/06/05		
ADDRESS: 15500 KAISER TRUCK RD DESERT CENTER CA 92239 RIVERSIDE	ID1: RICOGEN_860		
CONTACT:	ID2:		
	STATUS: NOT REPORTED		
	PHONE:		
<p><u>RIVERSIDE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS WASTE GENERATORS LIST:</u> <i>Please Note: The responsible agency does not provide details for these records. For further information on a site or to schedule a file review, please contact the Riverside County Environmental Health Department at the following phone number: (951) 358-5055</i></p>			

NFRAP			
SEARCH ID: 2	DIST/DIR: NON GC	MAP ID:	
NAME: KAISER EAGLE MOUNTAIN	REV: 1/22/09		
ADDRESS: N OF HWY 10 8M OFF KAISER RD. DESERT CENTER CA 92239 RIVERSIDE	ID1: CA0000053090		
CONTACT:	ID2: 0904940		
	STATUS: NFRAP-N		
	PHONE:		
DESCRIPTION:			
ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		08-19-1994
DISCOVERY	Federal Facilities		11-15-1993
PRELIMINARY ASSESSMENT	Federal Facilities		08-19-1994
NFRAP: No further Remedial Action planned			

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

RCRAGN

SEARCH ID: 3

DIST/DIR: NON GC

MAP ID:

NAME: EAGLE MOUNTAIN PUMPING PLANT
ADDRESS: 15500 KAISER TRUCK RD
DESERT CENTER CA 92239
RIVERSIDE

REV: 2/16/10
ID1: CAD981425416
ID2:
STATUS: SGN
PHONE:

CONTACT:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

22131 - WATER SUPPLY AND IRRIGATION SYSTEMS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

RCRAGN

SEARCH ID: 4

DIST/DIR: NON GC

MAP ID:

NAME: SO CALIF GAS CO/DESERT CENTER STATION
ADDRESS: SOUTH FRONTAGE RD
DESERT CENTER CA 92239
RIVERSIDE

REV: 2/16/10
ID1: CAD981422561
ID2:
STATUS: SGN
PHONE:

CONTACT:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
SOUTH FRONTAGE RD
DESERT CENTER CA 92239

PHONE: 2136893075

UNIVERSE INFORMATION:

NAIC INFORMATION

2212 - NATURAL GAS DISTRIBUTION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS			
SEARCH ID: 5	DIST/DIR: NON GC	MAP ID:	
NAME: OFF I-10 EASTBOUND AT MILE MARKER 95.	REV: 12/31/07	ID1: NRC-824646	
ADDRESS: DESERT CENTER CA RIVERSIDE	ID2:	STATUS: MOBILE	
CONTACT:	PHONE:		
COMMUNITY IMPACT:	N	WIND SPEED UNITS:	
EMPLOYEE INJURIES:		PASSENGER INJURIES:	
OCCUPANT FATALITY:		CURRENT SPEED UNITS:	
ROAD CLOSURE UNITS:		TRACK CLOSURE UNITS:	
SHEEN SIZE UNITS:		STATE AGENCY NOTIFIED:	CAOES
FED AGENCY NOTIFIED:	NONE	NEAREST RIVER MILE MARK:	
SHEEN SIZE LENGTH:		SHEEN SIZE LENGTH UNITS:	
SHEEN SIZE WIDTH:		SHEEN SIZE WIDTH UNITS:	
OFFSHORE:	N	DURATION UNIT:	
RELEASE RATE UNIT:		RELEASE RATE RATE:	
ADDITIONAL INFO: AT A LATER TIME.	DUE TO COMPUTER SYSTEM PROBLEMS, THE REPORT WAS ENTERED INTO THE SYSTEM AT A LATER TIME.		
<u>MATERIAL INFORMATION</u>			
CHRIS CODE:	ODS	CASE NUMBER:	000000-00-0
UN NUMBER:		REACHED WATER:	NO
NAME OF MATERIAL:	OIL: DIESEL		
AMOUNT OF MATERIAL:	0 UNKNOWN AMOUNT		
AMOUNT IN WATER:			
CHRIS CODE:	NCC	CASE NUMBER:	000000-00-0
UN NUMBER:		REACHED WATER:	NO
NAME OF MATERIAL:	PAINT		
AMOUNT OF MATERIAL:	0 UNKNOWN AMOUNT		
AMOUNT IN WATER:			
CHRIS CODE:	OMT	CASE NUMBER:	000000-00-0
UN NUMBER:		REACHED WATER:	NO
NAME OF MATERIAL:	OIL, MISC: MOTOR		
AMOUNT OF MATERIAL:	0 UNKNOWN AMOUNT		
AMOUNT IN WATER:			
<u>OTHER MATERIAL INFORMATION</u>			
<u>MOBILE DETAILS INFORMATION</u>			
<u>TRAIN INFORMATION</u>			
<u>VESSEL INFORMATION</u>			

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS

SEARCH ID: 7

DIST/DIR: NON GC

MAP ID:

NAME: TIME/DC INC
ADDRESS: ED I-10/1/2 MI W OF DESERT CENTER
DESERT CENTER CA
RIVERSIDE

REV: 01-04-01
ID1: 13327
ID2:
STATUS: UNKNOWN
PHONE:

CONTACT:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS

SEARCH ID: 8

DIST/DIR: NON GC

MAP ID:

NAME: UNKNOWN
ADDRESS: EB I-10 1 MI W OF DESERT CENTER
DESERT CENTER CA 92239
Riverside

REV: 12/11/93
ID1: 353465
ID2:
STATUS: HIGHWAY RELATED
PHONE:

CONTACT:

SPILL INFORMATION

DATE OF SPILL: 12/11/1993 **TIME OF SPILL:** 0305

PRODUCT RELEASED (1): DIESEL
QUANTITY (1): 110
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** YES
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY CALTRANS

RELEASE DETECTION:

MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 353465
TYPE OF DISCHARGER: UNKNOWN
NAME OF DISCHARGER: UNKNOWN
ADDRESS:

DUN and BRADSTREET :

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS			
SEARCH ID:	DIST/DIR:	NON GC	MAP ID:
NAME: UNKNOWN ADDRESS: I-10 AND FRONTAGE ROAD (OFF-RAMP) DESERT CENTER CA 92239 RIVERSIDE CONTACT:	REV: 8/3/1994 ID1: 397353 ID2: STATUS: FIXED FACILITY PHONE:		
<u>SPILL INFORMATION</u>			
DATE OF SPILL:	8/3/1994	TIME OF SPILL:	0500
PRODUCT RELEASED (1):	HAZARDOUS WASTE N.O.S.		
QUANTITY (1):	2		
UN			
<u>CAUSE OF RELEASE</u>			
DUMPING:	NO	EQUIPMENT FAILURE:	NO
NATURAL PHENOMENON:	NO	OPERATOR ERROR:	NO
OTHER CAUSE:	NO	TRANSP	

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS

SEARCH ID: 10

DIST/DIR: NON GC

MAP ID:

NAME: UNKNOWN
ADDRESS: INTERSTATE 10 AND FRONTAGE ROAD
CHARICO CA 92239
Riverside

REV: 9/16/94
ID1: 401239
ID2:
STATUS: UNKNOWN (EPA REGIONS)
PHONE:

CONTACT:

SPILL INFORMATION

DATE OF SPILL: 9/16/1994 **TIME OF SPILL:** 0500

PRODUCT RELEASED (1): DRUG LAB WASTE
QUANTITY (1): 10
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEAN UP BY SHERIFF DEPT.
RELEASE DETECTION: DRUG LAB DISCOVERED BY PD
MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 401239 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: UNKNOWN
NAME OF DISCHARGER: UNKNOWN
ADDRESS:

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

ERNS					
SEARCH ID:	11	DIST/DIR:	NON GC	MAP ID:	
NAME: ADDRESS: CONTACT:	UNKNOWN TRUCK WB =I-10 50 MI W OF INDIO CA DESERT CENTER CA Riverside	REV: ID1: ID2: STATUS: PHONE:	01-20-98 73092 UNKNOWN		
CERCLIS (Y/N):					
MAT:	DIESEL	QUANT:	100	GALLONS	
LOCATION: CITY:	WB =I-10 50 MI W OF INDIO CA	REPORTED:	06/30/88		
SOURCE: CAUSE:	UNKNOWN TANKER TRUCK RUPTURED FUEL TANK/FLO TO HWY + LAND UNKNOWN TANKS/FLO TO HWY + LAND	MEDIUM:	LAND	TANKER TRUCK RUPTURED FUEL	
ACT: BY:	C/U=CALTRANS				

Environmental FirstSearch Site Detail Report

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

SWL

SEARCH ID: 12

DIST/DIR: NON GC

MAP ID:

NAME: DESERT CENTER SANITARY 98-002
ADDRESS: 17-991 KAISER RD
DESERT CENTER CA 92239
RIVERSIDE
CONTACT: HANS KERNKAMP

REV: 07/03/00
ID1: WMUD7A330305121
ID2: 33-AA-0016
STATUS: ACTIVE
PHONE:

WMUDS FACILITY INFORMATION (blank = not reported)

Regional ID :
NPDES ID :
Region: 7
Edit Date: 11/23/99
Last Edit: lukasi

Waste Discharger Facility: Yes

Sub Chapter 15 Facility: Yes
Solid Waste Assessment Test Site: Yes
Toxic Pits Cleanup Act Facility: No
RCRA Facility: No
Department of Defense Facility: No
Municipal Solid Waste Facility: Yes

Total WMUS at Facility: 1
Facility Open to the Public: No
Facility Type: SW3
SIC 1 and SIC 2: 4953 /

Primary Waste Type: NONHAZARDOUS SOLID WASTES: SOLID WASTES
Secondary Waste Type:
Tons Per Day: 2
Complexity: CATEGORY B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marina

LAND OWNER INFORMATION

Land Owner: U.S.DEPARTMENT OF INTERIOR
Department: BUREAU OF LAND MANAGEMENT
Contact and Phone: JOHN KEY,HAZ.MAT.PROG.COORDINA, 7147871462
Land Owner Address: 6221 BOX SPRINGS BLVD., RIVERSIDE, CA 92507

AGENCY INFORMATION

Agency Name: RIVERSIDE CO WASTE MGMT DIV.
Department: SOLID WASTE MANAGEMENT DEPARTM
Agency Contact and Phone: HANS KERNKAMP, 9099554382

WASTE MANAGEMENT UNIT INFORMATION (blank = not reported)

WMU ID : 7A330305121-01
WMU Status: OPERATING
WMU Size in Acres: 160
Year WMU Will Reach Capacity: 2011
Close Plan: -1
Avg Depth to Groundwater: 245
Primary Liner Present: 0

SOLID WASTE ASSESSMENT TEST PROGRAM INFORMATION (SWAT) (blank = not reported)

Site Name: RIVERSIDE COUNTY-EAGLE MOUNTAIN LANDFILL

- Continued on next page -

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

SWL

SEARCH ID: 12

DIST/DIR: NON GC

MAP ID:

NAME: DESERT CENTER SANITARY 98-002
ADDRESS: 17-991 KAISER RD
DESERT CENTER CA 92239
RIVERSIDE
CONTACT: HANS KERNKAMP

REV: 07/03/00
ID1: WMUD7A330305121
ID2: 33-AA-0016
STATUS: ACTIVE
PHONE:

Site Rank: 7
Leak to Surface Water:
Leak to Ground:
Leak to Vandose Zone:

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

SWL

SEARCH ID: 13

DIST/DIR: NON GC

MAP ID:

NAME: EAGLE MOUNTAIN LANDFILL
ADDRESS: 10 MILES NORTH OF DESERT CENTER
DESERT CENTER CA
RIVERSIDE

REV: 02/22/10
ID1: SWIS33-AA-0228
ID2:
STATUS: PLANNED
PHONE:

CONTACT:

SITE OPERATOR INFORMATION:

Operator: *Mine Reclamation Corporation*
Operator Address: *3633 East Inland Empire Ste. 480 Ontario CA*
Permit Date: *1/14/2000*
Permit Status: *Permitted*
Land Use Name:
GIS Source for LAT and LONG: *Place*

SITE ACTIVITY INFORMATION:

Activity: *Solid Waste Landfill*
Accepted Waste: *Agricultural, Construction/demolition, Mixed municipal*
Operational Status: *Planned*
Regulatory Status: *Permitted*
Program Type: *BOE Reporting Disposal Facility, Financial Assurance Responsibilities*
Closure Date: *1/1/2085*
Closure Type: *Estimated*
Permitted Throughput with Units: *20000 Tons/day*
Permitted Capacity with Units: *559693680 Cubic Yards*
Remaining Capacity with Units (landfills only): *559693680*
Permitted Total Acreage: *4654*
Permitted Disposal Acreage: *1864*
Last Tire Inspection Count:
Last Tire Inspection Count Date:
Inspection Frequency: *None*

SITE OWNER INFORMATION:

Owner: *Kaiser Steel Resources, Inc.*
Owner Phone: *7603924257*
Owner Address: *Kaiser Venture POBOX 37*

Environmental FirstSearch
Site Detail Report

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

PERMITS

SEARCH ID: 14

DIST/DIR: NON GC

MAP ID:

NAME: IRON MOUNTAIN PUMPING STN
ADDRESS: 6001 IRON MTN PUMPING PLANT RD
EARP CA 92239
SAN BERNARDINO

REV: 02/11/04
ID1: 86012468
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

COUNTY OF SAN BERNARDINO HAZARDOUS WASTE GENERATORS PERMITS INFORMATION:

Permit Category: GENERATOR - 11-25 EMPLOYEES
Permit Number: PT0003118
Status: ACTIVE
Expiration Date: 7/31/2007 12:00:00AM
Facility Phone: 760 3924548
Owner Name: METROPOLITAN WATER DIST
Owner Address: P O BOX 54153
Owner Address: LOS ANGELES CA 90054
Owner Phone: 213 2175507

COUNTY OF SAN BERNARDINO HAZARDOUS WASTE GENERATORS PERMITS INFORMATION:

Permit Category: HAZMAT HANDLER 11-25 EMPLOYEES (W/GEN PRMT)
Permit Number: PT0003119
Status: ACTIVE
Expiration Date: 7/31/2007 12:00:00AM
Facility Phone: 760 3924548
Owner Name: METROPOLITAN WATER DIST
Owner Address: P O BOX 54153
Owner Address: LOS ANGELES CA 90054
Owner Phone: 213 2175507

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 23

DIST/DIR: NON GC

MAP ID:

NAME: IRON MOUNTAIN PUMPING PLANT
ADDRESS: NEAR RICE
EARP CA 92239
RIVERSIDE

REV: 01/01/94
ID1: TISID-STATE40637
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

LUST

SEARCH ID: 30

DIST/DIR: NON GC

MAP ID:

NAME: MWD - EAGLE MOUNTAIN PUMPING PL
ADDRESS: EAGLE MOUNTAIN ROAD
DESERT CENTER CA 92239
RIVERSIDE

REV: 03/01/10
ID1: T0606599090
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

CONTACT:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: RIVERSIDE COUNTY LOP
REGIONAL BOARD CASE NUMBER: 7T2239003
LOCAL AGENCY: RIVERSIDE COUNTY LOP
LOCAL CASE NUMBER: 200016523
RESPONSIBLE PARTY:
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Diesel
POTENTIAL MEDIA AFFECTED: Under Investigation
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: Completed - Case Closed
STATUS DATE: 2001-06-14
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2001-06-14 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter - Riv Co Closure

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

LUST

SEARCH ID: 29

DIST/DIR: NON GC

MAP ID:

NAME: CALTRANS DESERT CENTER
ADDRESS: 44740 RAGSDALE ROAD
DESERT CENTER CA 92239
RIVERSIDE

REV: 03/01/10
ID1: T060659306
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

CONTACT:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: RIVERSIDE COUNTY LOP
REGIONAL BOARD CASE NUMBER: 7T2239004
LOCAL AGENCY: RIVERSIDE COUNTY LOP
LOCAL CASE NUMBER: 200218178
RESPONSIBLE PARTY:
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Soil
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: Completed - Case Closed
STATUS DATE: 2002-11-06
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2002-09-18 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2002-11-06 00:00:00
ACTION (blank if not reported): Technical Correspondence / Assistance / Other

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2009-04-09 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter - Site Closure

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

- Continued on next page -

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

LUST

SEARCH ID: 29

DIST/DIR: NON GC

MAP ID:

NAME: CALTRANS DESERT CENTER
ADDRESS: 44740 RAGSDALE ROAD
DESERT CENTER CA 92239
RIVERSIDE

REV: 03/01/10
ID1: T060659306
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

CONTACT:

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 28

DIST/DIR: NON GC

MAP ID:

NAME: TEXACO DESERT CENTER
ADDRESS: 29560 RAGSDALE
DESERT CENTER CA 92239
Riverside

REV: 01/01/94
ID1: TISID-STATE36731
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 27

DIST/DIR: NON GC

MAP ID:

NAME: MWD/JULIAN HINDS PUMPING PLANT
ADDRESS: 0 DESERT CENTER
DESERT CENTER CA 92239
Riverside

REV: 01/01/94
ID1: TISID-STATE36856
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

UST HISTORICAL DATA

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**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 26

DIST/DIR: NON GC

MAP ID:

NAME: MWD/EAGLE MOUNTAIN PUMPING PLT
ADDRESS: 0 DESERT CENTER
DESERT CENTER CA 92239
Riverside

REV: 01/01/94
ID1: TISID-STATE36855
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 24

DIST/DIR: NON GC

MAP ID:

NAME: IRON MOUNTAIN PUMPING STN
ADDRESS: 6001 IRON MTN PUMPING PLANT RD
IRON MOUNTAIN CA 92279
SAN BERNARDINO
CONTACT: METROPOLITAN WATER DIST

REV: 04/03/2002
ID1: SANBERDO86012468
ID2:
STATUS:
PHONE: 3924548

SAN BERNARDINO COUNTY TANKS LIST INFORMATION

According to the San Bernardino County Fire Dept. the following information is current as of 02/11/04

Number of Tanks: 3
Permit Category: UST OWNERSHIP/OPERATING PERMIT (PER UST)
Permit Number: PT0011330
Description: UST Ownership/Operating Permit (per UST)
Status: ACTIVE
Expiration Date: 7/31/2004
Owner Name: METROPOLITAN WATER DIST
Owner Phone Number: 2175507
Owner Address: P O BOX 54153 LOS ANGELES, CA 90054

SAN BERNARDINO COUNTY TANKS LIST INFORMATION

According to the San Bernardino County Fire Dept. the following information is current as of 02/11/04

Number of Tanks: 3
Permit Category: UST OWNERSHIP/OPERATING PERMIT (PER UST)
Permit Number: PT0011331
Description: UST Ownership/Operating Permit (per UST)
Status: ACTIVE
Expiration Date: 7/31/2004
Owner Name: METROPOLITAN WATER DIST
Owner Phone Number: 2175507
Owner Address: P O BOX 54153 LOS ANGELES, CA 90054

SAN BERNARDINO COUNTY TANKS LIST INFORMATION

According to the San Bernardino County Fire Dept. the following information is current as of 02/11/04

Number of Tanks: 3
Permit Category: UST OWNERSHIP/OPERATING PERMIT (PER UST)
Permit Number: PT0011332
Description: UST Ownership/Operating Permit (per UST)
Status: ACTIVE
Expiration Date: 7/31/2004
Owner Name: METROPOLITAN WATER DIST
Owner Phone Number: 2175507
Owner Address: P O BOX 54153 LOS ANGELES, CA 90054

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

OTHER			
SEARCH ID:	DIST/DIR:	NON GC	MAP ID:
NAME: DESERT CENTER LANDFILL ADDRESS: 17991 KAISER RD DESERT CENTER CA 92239 RIVERSIDE CONTACT:	REV: 09/06/05 ID1: RICOGEN_856 ID2: STATUS: NOT REPORTED PHONE:		
<p><u>RIVERSIDE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS WASTE GENERATORS LIST:</u> <i>Please Note: The responsible agency does not provide details for these records. For further information on a site or to schedule a file review, please contact the Riverside County Environmental Health Department at the following phone number: (951) 358-5055</i></p>			

UST			
SEARCH ID:	DIST/DIR:	NON GC	MAP ID:
NAME: EXXON CHUCKWALLA ADDRESS: 27725 DESERT CENTER.RICE ROAD DESERT CENTER CA 92239 RIVERSIDE CONTACT:	REV: 04/06/2001 ID1: RIVERSIDECO84410 ID2: STATUS: PHONE:		
<p>DETAILS NOT AVAILABLE</p>			

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST

SEARCH ID: 21

DIST/DIR: NON GC

MAP ID:

NAME: EXXON CHUCKWALLA
ADDRESS: 27725 RICE
DESERT CENTER CA 92239
Riverside

REV: 01/01/94
ID1: TISID-STATE36735
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

UST HISTORICAL DATA

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

***Environmental FirstSearch
Site Detail Report***

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST			
SEARCH ID:	DIST/DIR:	MAP ID:	
20	NON GC		
NAME:	EAGLE MOUNTAIN PUMPING PLANT	REV:	05/30/01
ADDRESS:	PO BOX 107	ID1:	AST764
	DESERT CENTER CA	ID2:	
	RIVERSIDE	STATUS:	AST SWRCB REG.7
CONTACT:		PHONE:	
Region:	7		
Company Name:	MWD OF SOUTHERN CALIFORNIA		
Company Name 2:	ATTN: NAN M. PATERSON		

UST			
SEARCH ID:	DIST/DIR:	MAP ID:	
19	NON GC		
NAME:	DESERT CENTER SCHOOL DIST	REV:	04/06/2001
ADDRESS:	1434 KAISER RD	ID1:	RIVERSIDECO82935
	DESERT CENTER CA 92239	ID2:	
	RIVERSIDE	STATUS:	
CONTACT:		PHONE:	
DETAILS NOT AVAILABLE			

**Environmental FirstSearch
Site Detail Report**

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

OTHER			
SEARCH ID:	DIST/DIR:	MAP ID:	
18	NON GC		
NAME:	SOUTHERN CALIFORNIA GAS COMPANY	REV:	09/06/05
ADDRESS:	I-10 RICE RD DESERT CENTER CA 92239 RIVERSIDE	ID1:	RICOGEN_858
CONTACT:		ID2:	
		STATUS:	NOT REPORTED
		PHONE:	
<u>RIVERSIDE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS WASTE GENERATORS LIST:</u>			
<i>Please Note: The responsible agency does not provide details for these records. For further information on a site or to schedule a file review, please contact the Riverside County Environmental Health Department at the following phone number: (951) 358-5055</i>			

TRIBALLAND			
SEARCH ID:	DIST/DIR:	MAP ID:	
31	NON GC		
NAME:	BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION	REV:	01/15/08
ADDRESS:	UNKNOWN CA 92239 RIVERSIDE	ID1:	BIA-92239
CONTACT:		ID2:	
		STATUS:	
		PHONE:	
<u>BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION</u>			
OFFICE:	Pacific Regional Office		
CONTACT:	CLAY GREGORY,REGIONAL DIRECTOR		
ADDRESS:	2800 Cottage Way Sacramento CA 95825		
PHONE:	Phone: 916-978-6000		
FAX:	Fax: 916-978-6099		
The Native American Consultation Database (NACD) is a tool for identifying consultation contacts for Indian tribes, Alaska Native villages and corporations, and Native Hawaiian organizations. The database is not a comprehensive source of information, but it does provide a starting point for the consultation process by identifying tribal leaders and NAGPRA contacts. This database can be accessed online at the following web address http://home.nps.gov/nacd/			

*Environmental FirstSearch
Site Detail Report*

Target Property: DESERT SUNLIGHT 2
DESERT CENTER CA 92239

JOB: PDSSF2

UST			
SEARCH ID: 25	DIST/DIR: NON GC	MAP ID:	
NAME: MWD/EAGLE MOUNTAIN PUMPING ADDRESS: EAGLE MOUNTAIN RD DESERT CENTER CA 92239 RIVERSIDE	REV: 06/14/2000 ID1: RIVERSIDECO83406 ID2: STATUS: PHONE:		
<u>RIVERSIDE COUNTY TANKS LIST INFORMATION</u>			
Number of Tanks: 2			

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:

Failure to report in a timely matter.

No longer in business.

No longer in business at the listed address.

No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: EPANRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at

properties that may have been affected by the release of hazardous substances.

The SMBRPD displays information in six categories. The categories are:

1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)

Please Note: FirstSearch Reports list the above sites as DB Type (STATE).

5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)

Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).

Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.

CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:

1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).

Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: *CA EPA* SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: *CA IWMB/SWRCB/COUNTY* SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..

Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.

WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.

Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.

ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: *CA SWRCB/COUNTY* LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.

SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: *CA EPA/COUNTY/CITY* ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a

groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.

SWEEPS / FIDS STATE REGISTERED UNDERGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.

INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTs are administered by US EPA Region 9.

CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.

A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.

Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefore, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: CA EPA DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.

The SMBRPD displays information in six categories. The categories are:

1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)

Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: NTIS NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Permits: CA COUNTY SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.

SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: CA EPA/COUNTY SMBRPD / CAL SITES- The California Department of Toxic Substances

Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.

The SMBRPD displays information in six categories. The categories are:

1. CalSites Properties (CS)
 2. School Property Evaluation Program Properties (SCH)
 3. Voluntary Cleanup Program Properties (VCP)
 4. Unconfirmed Properties Needing Further Evaluation (RFE)
- Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
 6. Properties where a No Further Action Determination has been made (NFA)
- Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).

Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.

LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.

ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.

RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.

SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.

SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

State Other: *US DOJ* NATIONAL CLANDESTINE LABORATORY REGISTER - Database of addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

APPENDIX C

Qualifications

Kirsten Bradford

Project Specialist

Professional History

Education

BS, Chemistry, New Mexico Institute of Mining & Technology (New Mexico Tech), 2000

Registrations

Registered Environmental Assessor I

Years of Experience

With AECOM: 4
With other firms: 2

Kirsten Bradford has over six years of experience conducting environmental site assessments (ESAs) and compliance evaluations, and over ten years of experience in chemical and research laboratory environments including environmental applications. Ms. Bradford has conducted Phase I ESAs and compliance evaluations of commercial and industrial properties and facilities throughout the United States and Mexico, including, agricultural sites, mineralogical sites, shopping malls, automotive and heavy-duty truck repair facilities, multi-tenant office buildings and business parks, assembly and manufacturing facilities, food-processing facilities, power plants and utility facilities, and warehouse/distribution facilities. Issues addressed during assessments have included current and historical storage and use of hazardous and acutely hazardous materials; underground storage tanks; industrial wastewater discharge; and disposal and/or recycling of hazardous waste. Ms. Bradford is continuously developing her project management skills and providing technical support to nation-wide environmental due diligence and compliance projects. Additionally, Ms. Bradford assists in the site reconnaissance and development of Storm Water Pollution Prevention Plans (SWPPPs) in support of National Pollution Discharge Elimination System (NPDES) Permitting, and of Spill Pollution Control and Countermeasure (SPCC) Plans for facilities and industries. She has assisted in the development of integrated pollution prevention and countermeasure plans, including Hazardous Material Business Plan (HMBP) preparation for facilities and industries. These facilities and industries have included municipal airports, numerous natural gas compressor stations and facilities, power plants, food production plants, heavy-vehicle break manufacturing facilities, aerospace manufacturing facilities, and utility-operated pipeline construction sites, among others

Experience

Johnson & Johnson, Phase I Environmental Site & Limited Compliance Assessment, Orange County, California. Conducted assessment and development of a research and development (R&D) company that designs therapeutic health devices. On-site operations included laboratory and machine shop activities. Limited compliance applied included Hazardous Materials Business Planning and Inventorying principles to comply with California legislation to meet the requirements of Sections 311 and 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA) (SARA Title III); and wastewater discharge permitting principles to comply with local industrial waste program.

Teachers Insurance & Annuity Association (TIAA), Limited Compliance Assessment and Desktop Review, Ventura County, California. Conducted a limited compliance assessment of two apartment home complexes. On-site improvements and activities were related to an office buildings, hydraulic-powered elevators, pool and spa systems, maintenance shops, and storage areas. Visual inspections of the on-site operations, reviews of facility files and records, reviews of federal and state governmental incident databases and files, and interviews with property personnel and governmental officials to evaluate the relative degree of compliance of on-site operations with key federal and state environmental regulations as they relate to hazardous waste; solid waste and asbestos-containing materials; conventional and toxic air emissions; underground and above ground storage tanks; wastewater discharges including storm water; and PCB management.

BOC Edwards, Phase I Environmental Site Assessment & Compliance Evaluation, Maricopa County, Arizona. Conducted a Phase I ESA of two industrial facilities that clean and coat parts in support of semiconductor equipment. Considered compliance with laws and permits with respect to the following issues as a minimum: Aqueous abstractions and discharges; Atmospheric emissions; Solid and hazardous waste management; Above and below ground tank management; Nuisance; Asbestos; and Poly Chlorinated Biphenyls (PCBs). Information provided by the sites was further studied and correlated with existing information to determine findings and to prepare a Phase I ESA report.

Phase I Environmental Site & Limited Compliance Assessment, Santa Barbara County, California. Conducted a Phase I ESA and compliance assessment of two corporate office buildings. On-site activities included corporate office, warehouse, and research and development operations. Specific components assessed included, hazardous materials and wastes handling, storm water, spill prevention, Emergency Planning and Community Right-to-Know (EPCRA), and health and safety programs.

Teachers Insurance & Annuity Association (TIAA), Phase I Environmental Site & Compliance Assessment, Los Angeles County, California. Completed a Phase I ESA and compliance assessment of a shopping mall. Facilities assessed included representative retail businesses, food court eateries and on-site restaurants, and maintenance areas for areas including hazardous materials and waste handling, sanitary and storm water waste streams, and EPCRA reporting.

Foley & Lardner LLP, Phase I Environmental Site Assessment & Limited Environmental Compliance and Limited Health and Safety Compliance Assessments, and Wastewater Evaluation and Sampling Activities, Newman, Stanislaus County, California. Conducted a Phase I ESA of a cheese and whey food processing facility. Assessment activities included an environmental records search and analysis, a historical analysis, interviews, and a site evaluation. Facility systems addressed included bulk aboveground storage, clean-in-place (CIP) systems, chemical storage, the facility's ammonia cooling system, water treatment chemical storage, oil storage, hazardous, universal and solid waste handling and storage, water and wastewater, and storm water. Additional assessment was done to conduct

wastewater sampling and characterization and offsite wastewater disposal reviews, and to conduct a detailed review of the facility's compliance with their Risk Management Plan (RMP).

Nutro Products, Inc., Hazardous Materials Business Response Plan, Victorville County, California. Assessed on-site hazardous chemical storage and operations and prepared completed agency plan forms for a dry dog food manufacturing plant. On-site hazardous materials and wastes inventoried included lubricating oils, insecticide mixture oil concentrate, diesel fuel, product ingredients containing oil, bulk storage of vegetable oil, and bulk storage of poultry fat.

U.S. Filter Operating Services, Phase I Environmental Site Assessment, Kern County, California. Conducted assessments of an equipment and maintenance yard including an outdoor storage area for portable equipment used for petroleum dewatering applications, and including two shop buildings in support of metal fabrication and welding of heavy portable equipment, and oil research and development (R&D) laboratory activities.

Public Storage, Inc., Environmental Support with File Review, San Diego County, California. Performed site assessment and file review to establish historical on-site remedial action activities including groundwater monitoring, and current site case status with local regulatory agency. Made recommendations for activities directed toward achieving site case closure, and in complying with State of California Geotracker database requirements.

International Paper Company, Timberlands Environmental Site Assessment, Alabama. Conducted assessment of 215,000 acres of timberland in accordance with American Society for Testing and Materials Standard (ASTM) Practice E 2247-02. Used GIS tracking to record routes and mark specific areas of potential environmental concern including log yards and camps, fuel use and storage, pesticide and herbicide use, burning practices, logging roads, sand and gravel pits, hunting camps and leases, and landfills.

First Industrial Realty Trust, Phase I Environmental Site Assessment, Los Angeles County, California. Carried out assessment of an office/warehouse facility including an ancillary former hazardous materials storage building and truck loading docks. Assessment included review of local government records to identify historical improvements and uses.

Acushnet Company, Phase I Environmental Site Assessment, San Diego County, California. Conducted assessment of agricultural property including historical fuel storage areas.

General Electric, Phase I Environmental Site Assessments, Santa Barbara County, California. Performed assessment of tenant spaces located in three offices. Presented findings on detailed predetermined form format provided by the user/client. Research included a detailed review of building department permit site record history.

Quality Project Management, Phase I Environmental Site Assessment & File Reviews, San Diego County, California. Conducted assessment of two vacant parcels previously developed. Performed 1,500 page file review of site and adjoining sites based on their historically uses as former gasoline service stations, each with historical unauthorized releases affecting groundwater. Analyzed

historical soil sampling, remediation activities, and groundwater monitoring data to identify potential environmental impacts to the site from historical uses associated with on-site contamination sources or from off-site contamination sources.

Teachers Insurance & Annuity Association (TIAA), Phase I Environmental Site Assessment, Maricopa County, Arizona.

Performed an assessment of a multi-story corporate office building. On-site improvements assessed included hydraulic-powered elevators, storm water retention areas and on-site dry wells, a fuel-powered generator, storage areas, and a rooftop cooling plant. Focused assessment was conducted into observing each on-site tenant space. Assessment activities included American Society Testing Materials (ASTM) 1527 additional scope issues including visual observation for evidences of suspect asbestos-containing materials and of water intrusion and mold growth. Additionally, on-site improvements were investigated by conducting file reviews and interviews with government and regulatory agencies.

Weil, Gotshal & Manges LLP, Phase I Environmental Site Assessment, Clackamas & Washington Counties, Oregon.

Conducted an assessment of warehouse distribution and office facilities. On-site retail warehousing activities included an on-site truck wash, a trailer maintenance shop, a fueling island; and fuel-powered generators, hydraulic-powered lifts, and storage areas including for lead-acid (wet-type) batteries to power forklifts.

Gibson Dunn & Crutcher, Phase I Environmental Site Assessment, Maricopa County, Arizona. Assessed warehouse, repair, and maintenance facilities for heavy-duty trucks and truck parts. Historical setting included on-site fueling operations and remedial action closure activities.

Public Storage, Inc., Phase I Environmental Site Assessment, Southern California. Conducted assessments of multiple self storage facilities throughout Southern California.

Sargent & Lundy, Phase I Environmental Site Assessment, San Diego County, California. Conducted assessments in support of the Environmental Due Diligence study for the purchase of a site being developed for a future gas-fired power plant. Site characteristics included existing biological and archeological conservation easements. Historical on-site activities investigated included cement truck cleanouts, refueling operations, and grading.

T.A. Realty Corporation, Phase I Environmental Site Assessments, Southern and Northern California. Conducted assessments of corporate office buildings (e.g. multi-story, multi-tenant) and distribution warehouses. On-site improvements assessed have included hydraulic-powered elevators and lifts, loading dock areas, fuel-powered generators, storage areas, and warehouse areas. Focused research was conducted into on-site historical tenant activities. Assessment activities have included American Society Testing Materials (ASTM) 1527 additional scope issues included visual observation for apparent condition of suspect asbestos-containing materials and evidences of water intrusion and mold growth. Additionally, off-site potential sources of environmental concern (e.g. abutting CERCLA sites with impacted groundwater from historical site operations) were identified and

investigated by conducting regulatory file reviews and interviews with regulatory agencies.

Phase I Environmental Site Assessment of Agricultural Orchards, Kern County, California. Assisted in completing a company-wide environmental due diligence portfolio as a report author of five orchard (e.g. almond, walnut) sites located in Southern California by using an online database Phase I ESA report collection and preparation tool, PARCEL.

Chevron U.S.A. Inc., Phase I Environmental Site Assessment, San Luis Obispo County, California. Conducted a Phase I Environmental Site Assessment (ESA) of a site that was first developed in with a garage/service station and residences. The ESA required the organization and review of a significant amount of environmental information. Site operations included former aboveground storage tanks (ASTs), associated product piping, and product dispensers, including an abandoned petroleum pipeline. The subject property was also used for outdoor vehicle storage and related activities. At the time of the ESA, the site was also undergoing pollution characterization under the lead regulatory agency oversight of the Regional Water Quality Control Board (RWQCB).

United Launch Alliance, Environmental Closeout Survey (ECS), Vandenberg Air Force Base (AFB), Santa Barbara County, California. Performed an assessment of two air force base facilities located at Vandenberg (AFB) as part of the Environmental Closeout Survey (ECS) in accordance with United States Air Force Instruction (AFI) #32-7066, Environmental Baseline Surveys in Real Estate Transactions, dated April 25, 1994, and the American Society for Testing and Materials (ASTM) standard E1527-97, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The ECS was conducted in anticipation of terminating License agreements. ECS considerations included floodplain, vegetation, ecological characterization, wetlands, and cultural resources, aboveground and underground storage tanks, pipelines; hydrant fueling; and transfer systems, oil/water separators, pesticides, medical or biohazardous waste, radioactive wastes, wastewater treatment; collection; and discharge, drinking water quality, asbestos, polychlorinated biphenyls (PCBs), radon, and lead-based paint, including applicable regulatory compliance issues.

Realty Associates Advisors, LLC, Phase I Environmental Site Assessment, Orange County, California. Conducted a Phase I Environmental Site Assessment (ESA) of a site consisting of four multi-story office buildings, five single-story light industrial office/warehouse buildings, two single-story retail strip-malls, and one multi-level aboveground parking structure. Operations at the subject property included clerical/administrative; one urgent care clinic, one repairer of medical equipment, one small-scale printing and shipping/copying business, one dentist office, one optometry office, one salon and spa and retail/restaurant-type businesses. A former dry cleaner facility was identified adjacent to the subject property with impacts to soil and groundwater with chlorinated solvents at concentrations that exceed the State of California regulatory cleanup objectives. And, a former on-site gasoline station was also identified during the course of the ESA.

TNP Acquisitions, LLC (partnered with Realty Associates Advisors, LLC), Phase I Environmental Site Assessment, San Diego County, California. Phase I Environmental Site Assessment (ESA) was conducted of two sites as part of a portfolio. The ESAs were conducted in accordance with American Society of Testing and Materials (ASTM) standard E 1527-05, and included an evaluation of non-standard ASTM components: asbestos, wetlands, water infiltration and potential mold-like growth, lead in drinking water, radon, high voltage power lines, underground pipelines and National Pollution Discharge Elimination System (NPDES) wastewater permits with respect to the Properties. At one of the sites assessed, one adjacent site was identified during the ESA to present a recognized environmental condition (REC); and at the other site assessed, former on-site (USTs) were identified to be a historical REC (HREC).

Phase I Environmental Site Assessments, Clark County, Nevada. Conducted multiple Phase I Environmental Site Assessments (ESAs) within Clark County, Nevada. Facilities assessed included commercial office/warehouse buildings and restaurants. Standard record sources consulted during ESA site visit activities included city and county offices for file reviews and library research.

Sempra Global, Phase I Environmental Site Assessment, Clark County, Nevada. Conducted a Phase I Environmental Site Assessment (ESA) of approximately 380 acres of vacant desert land located in El Dorado Valley. The subject property was assessed for visible signs of possible contamination, public records for the subject property were researched, and interviews were conducted with regulatory agencies and representatives from the property owner.

Edison Mission Energy, Phase I Environmental Site Assessment, Kern County, California. Performed a Phase I Environmental Site Assessment (ESA) of 3,170 acres of vacant desert located within the Antelope Valley region of the Mojave Desert, in the vicinity of California City, Kern County, California. ESA activities identified portions of the subject property were part of a quarry and a former military gunnery range, including potential for unexploded ordnance (UXO) on-site.

Solar Millennium, LLC, Phase I Environmental Site Assessment, Kern County, California. Conducted a Phase I ESA of 4,920 acres of vacant desert land administered by the Bureau of Land Management (BLM). The Phase I ESA was completed to support the preparation of an Application for Certification (AFC) to be submitted to the California Energy Commission (CEC). Features identified onsite included a former Southern Pacific Rail Road (SPRR) right-of-way, an overhead power transmission right-of-way, a former stock water well, mining prospects, and potential UXO. Nearby features identified included a former burn dump and mining districts.

City of Palmdale, Phase I Environmental Site Assessment, Los Angeles County, California. Conducted a Phase I Environmental Site Assessment (ESA) of a natural gas, reclaimed water, potable water, and sewer pipeline routes that were proposed to support a hybrid power project. The ESA report was prepared to respond to a California Energy Commission (CEC) Waste Management Data Request. The length of the pipeline route was approximately 12 miles long, and the ESA included precursory environmental database report and online records

reviews and research, followed by compilation of the site survey that was conducted of the proposed pipeline route and surrounding area.

Air Liquide, Phase I Environmental Site Assessment, Salt Lake County, Utah and Sweetwater County, Wyoming. Conducted a Phase I ESA of two planned plant location sites. In conducting the Phase I ESA, AECOM assessed the sites for visible signs of possible contamination, researched public records for the sites, and conducted interviews with representatives of regulatory agencies, the client, and those people deemed knowledgeable of the sites. AECOM successfully observed the sites during extreme weather conditions including snow cover and freezing temperatures.

Eagle Burgmann Industries LP, Phase I Environmental Site Assessments, Harris and Brazoria Counties, Texas. Conducted two Phase I ESAs of warehouse properties in conformance to the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (E 1527-05), which meets the requirements of 40 CFR Part 312 and is intended to constitute all appropriate inquiry for purposes of the landowner liability protections (LLPs).

Air Liquide, Phase I Environmental Site Assessment, Fairfax County, New Mexico. Conducted a Phase I ESA of approximately 250 acres of ranch land. The Phase I ESA included a site visit, regulatory research, historic review, and environmental database search of the subject property. In addition to the ASTM Phase I ESA scope of work, Phase I ESA non-scope items included radon, wetlands, floodplains, and endangered and threatened species.

Minera Toloro, Phase I Environmental Site Assessment, Moctezuma, Sonora, Mexico. Conducted a Phase I ESA of approximately 1,070 acres of land used for cattle ranching and including mine sites/claims. Assessment activities included site reconnaissance, review of historical documents, and interviews conducted with selected individuals knowledgeable about the property and surrounding area. In addition to the ASTM Phase I ESA scope of work, Phase I ESA non-scope items included radon, wetlands, floodplains, and endangered and threatened species.

Air Liquide, Phase I Environmental Site Assessment, Sunnyvale, Santa Clara County, California. Conducted a Phase I ESA of a microelectronic assembly and product development facility. The Phase I ESA included a site visit, regulatory research, historic review, and environmental database search of the subject property. A review and summary of a previous Phase I and Phase II ESAs was conducted for the facility. The summary included a comparison of the Phase II ESA analytical results against the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs).

Phase I Environmental Site Assessment Portfolio, Los Angeles County, California. Served as lead assessor in a series of seven Phase I ESAs within the Phase I ESA portfolio which included assessment of non-scope ASTM 1527 items, including methane gas.

SunTrust, Phase I Environmental Site Assessments, Florida and South Carolina. Assisted in completing a company-wide environmental due diligence portfolio as a report author of multiple sites

located in Florida and South Carolina by using an online database Phase I ESA report collection and preparation tool, PARCEL.

Bendix Commercial Vehicle Systems, LLC, Storm Water Pollution Prevention Plan (SWPPP), Fresno County, California. Prepared a Storm Water Pollution Prevention Plan (SWPPP) for a heavy vehicle brake manufacturing facility in Fresno County, California while addressing the current National Pollutant Discharge Elimination System (NPDES) regulations, 40 CFR Section 122.26, and complying with California's General Permit. Incorporated recently proposed changes for the storm water program in California, and made every effort to ensure that the SWPPP developed for the facility would comply with the new requirements. Tasks involved included a site visit, a Best Management Practice (BMP) assessment, and preparation of the Plan.

ExxonMobil Oil Corporation, Storm Water Pollution Prevention Plan (SWPPP), Los Angeles County, California. Supported the completion of a Storm Water Pollution Prevention Plan (SWPPP) for a project site located within a State right-of-way, and the acquisition of an Encroachment Permit from the California Department of Transportation (CalTrans) that is in compliance with requirements of its National Pollutant Discharge Elimination System (NPDES) permit in regards to its submission to the Regional Water Quality Control Board (RWQCB).

ExxonMobil Oil Corporation, Storm Water Pollution Prevention Plan (SWPPP) Training, Los Angeles County, California. Provided training on how to implement the Storm Water Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) to client staff and contractors at a pre-construction meeting for the client's proposed project. Tasks included preparation of a PowerPoint presentation as well as attendance at the client's pre-construction meetings.

Elk Hills Power, LLC, Storm Water Pollution Prevention (SWPP) Plan and Spill Prevention Control and Countermeasure (SPCC) Plan, Kern County, California. Amended both of the power plant facility's Storm Water Pollution Prevention Plan (SWPP) Plan, and its Oil Spill Prevention Control and Countermeasure (SPCC) Plan. The SWPP Plan was updated to meet the requirements of the State Water Resources Control Board (SWRCB) Water Quality Order No. 97-03-DWQ and the National Pollutant Discharge Elimination System (NPDES) General Permit. The SWPP Plan describes the mechanisms in place at the power plant facility to prevent the release of pollutants to the waters of the state. The SWPP Plan identified methods, best management practices (BMPs), training, inspection, and monitoring procedures to be employed by the power plant facility to prevent the exposure of storm water to hazardous materials, and to prevent the release of hazardous materials into the storm water discharge. The Spill Prevention Control and Countermeasure (SPCC) Plan was prepared to include the items required by 40 CFR 112, including a discussion of the facility's spill response organization, spill notification, spill response and spill reporting procedures.

Sierracin/Sylmar Corporation, Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention Control and Countermeasure (SPCC) Plan, Los Angeles County, California. Prepared a Storm Water Pollution Prevention Plan (SWPPP) for a facility that conducts on-site aircraft parts and auxiliary equipment manufacturing to meet the

requirements of the State of California's General Storm Water Permit (WQ Order No. 97-03 DWQ) and the National Pollution Discharge Elimination System (NPDES) General Permit No. CAS 000001 (General Permit). Identified the methods, best management practices (BMPs), training, inspection, and monitoring procedures that were implemented at the facility to prevent the release of hazardous materials or other potential pollutants into storm water discharges. The facility included indoor and outdoor plant operations.

Algonquin Power, Oil Spill Assessment Portfolio, Southern California. Conducted oil spill assessments of landfill gas to energy facilities.

Realty Associates Advisors, LLC, Due Diligence, Western United States. Served as project manager for nearly 100 Phase I Environmental Site Assessments (ESAs), also including Phase II ESAs or other due diligence projects (e.g., file reviews, contaminated properties case closure work, wastewater pretreatment facilities, soil vapor intrusion, fuel station compliance oversight). Included management of multiple multi-site Phase I ESA portfolios located in the vicinity of Chicago, Illinois where over half a dozen sites required Phase II ESAs.

Southern California Edison (SCE), Environmental Assessment (EA), Alberhill Substation, Riverside County, California. Assisted with the preparation of the hazards and hazardous materials section for the substation licensing project. Sections developed focused on a detail analysis of hazardous waste and materials, emergency response, wildland fires, airports and airstrips, schools, and healthcare facilities impacts on and in the area of the proposed project site, if any, based upon California Environmental Quality Act (CEQA) guidelines.

Becker Industrial Coatings, Limited Phase II Environmental Site Assessment, San Bernardino County, California. Conducted a limited Phase II ESA including eight soil borings at an industrial facility and oversaw a contracted truck mounted, hydraulically operated Geoprobe sampling system and crew. Attempts to advance the borings to the proposed depth of 20 feet below ground surface (bgs) had to be negotiated as cobbles and/or boulders were encountered at drilling depths. Collected soil samples were screened with a photo-ionization detector (PID). The collected soil samples were preserved and extracted in accordance with U.S. EPA Method 5035.

Yardi Systems, Inc., Limited Phase II Environmental Site Assessment, Santa Barbara County, California. Conducted an assessment of a vacant parcel to evaluate soil and groundwater conditions in the area of a former on-site diesel-fuel underground storage tank (UST). Assessment activities included coordination of Geoprobe sampling to a depth of approximately 20 feet below ground surface, and an analysis of laboratory analytical soil and groundwater sample results including total petroleum hydrocarbons in gasoline (TPH-G) and diesel-fuel (TPH-D) and for volatile organic compounds (VOCs).

Teachers Insurance and Annuity Association, Limited Phase II Environmental Site Assessment, Kern County, California. Conducted a Phase I ESA of a 20 acres of vacant land located in Bakersfield, California. Subsequently, soil sampling was conducted to evaluate numerous piles of soil that were present on-site in an effort to characterize the material. Successfully completed soil sampling by

manually collecting five discrete soil samples from each soil pile section at a depth of approximately six inches, and the five discrete soil samples from each soil pile section were combined into one composite soil sample for laboratory analysis. Results were analyzed, and it was concluded that unidentified on-site soil piles or the historical use of the site did not significantly impacted the site.

Realty Associates Advisors, LLC, Closure of a Clarifier, Los Angeles County, California. Managed the request for a permit from the Los Angeles County Department of Public Works (LACDPW) for closure of an on-site clarifier. Following successful receipt of the closure permit from LACDPW, conducted soil verification sampling, met with the LACDPW inspector while onsite, and documented removal of the on-site clarifier facility. Collected verification soil samples from the clarifier excavation in accordance with EPA Method 5035 for volatile organic analysis. Sampling and closure documentation/reporting resulting in the successful closure of the on-site clarifier facility from the LACDPW.

Department of Toxic Substances Control, Start-Up Testing of Methane Mitigation System, Ventura County, California. Supported start-up testing of a methane mitigation system by monitoring for methane concentrations in the field using portable hand-held methane-specific instruments such as a flame-ionization detector (FID) and the LANDTEC 2000 Landfill Gas Indicator or equivalent instruments. Recorded barometric pressure with a barometer and measured subsurface concentrations of methane, oxygen, and carbon dioxide using a combination of the FID and LGI instruments. Measured indoor vent-riser pipes with the FID and LGI for methane concentrations.

Southern California Gas Company, Integrated Storm Water/Oil Spill Prevention Control and Countermeasure (SPCC) Plan Updates Portfolio, Southern California. Conducted site reconnaissance and modified original draft documents of a dozen natural gas compression facilities in order to reconcile and update their existing Integrated SWPP (storm water) and SPCC (oil spill) plans.

Continental Airlines, Inc., Integrated Spill Prevention Control and Countermeasure (SPCC) and RCRA Contingency Plan and Review, Northern and Southern California. Conducted and provided Spill Prevention Control and Countermeasure (SPCC) and RCRA Contingency Plan review and update services for four airport locations, including a total of nine aircraft line maintenance, hangar, terminal, hangar, and airline kitchen facilities. Integrated plans were prepared to comply with 40 CFR Part 112, as well as applicable waste Contingency Plan requirements under 40 CFR 264.

REXAM Beverage Can Company, Oil Spill Prevention, Control, and Countermeasure (SPCC) Plan, Los Angeles County, California. Updated an Oil Spill Prevention, Control, and Countermeasure (SPCC) Plan for a facility that manufactures beverage cans. Facility operations evaluated included a tank farm with containment areas, bulk aboveground storage transfers, an indoor drum storage room, satellite collection areas and various process equipment within the manufacturing areas, and aboveground and belowground transformers.

BMW of North America, LLC, Oil Spill Prevention, Control, and Countermeasure (SPCC) Plan, Ventura County, California. Updated an Oil Spill Prevention, Control, and Countermeasure (SPCC) Plan for a facility that conducts technical testing for new vehicles. Facility

operations included vehicle wash and fuel dispensing areas, including hazardous material storage areas and vehicle service areas.

County of Ventura, Department of Airports, Spill Prevention Control and Countermeasure (SPCC) Plan, Ventura County, California. Assessed on-site petroleum storage facilities and operations and prepared a plan based on SPCC requirements for a general aviation reliever airport. On-site potential petroleum pollutant sources evaluated included an aviation fuel tank farm, diesel fuel aboveground tanks associated with a deluge fire protection system, diesel fuel associated with an emergency backup generator, and used-oil storage.

Nutro Products, Inc., Spill Prevention Control and Countermeasure Plan (SPCC) Plan, Victorville County, California. Performed assessment on-site petroleum storage facilities and operations and prepared a plan based on SPCC requirements for a dry dog food manufacturing plant. On-site potential petroleum pollutant sources evaluated included lubricating oils, insecticide mixture oil concentrate, diesel fuel, product ingredients containing oil, bulk storage of vegetable oil, and bulk storage of poultry fat.

Kings River Conservation District, Spill Prevention Control and Countermeasure (SPCC) Plan, Piedra, Fresno County, California. Facility operations included assessment of the Pine Flat Power Plant, a hydroelectric generating plant for the Pine Flat Dam. The plant consists of a switchyard and powerhouse located at the base of the dam and includes penstock intake hoist rooms at the top of the dam. The multi-level plant drainage system included an oil-water separator, a drainage sump and an unwatering sump. Total oil storage inventory assessed included over 20,000 gallons of petroleum products.

Schneider National Inc., Spill Prevention Control and Countermeasure (SPCC) Plan, San Joaquin County and Los Angeles County, California. Prepared SPCC Plans for three truck transportation facilities. Facility operations included truck and trailer maintenance and refueling. The Plan was developed according to client specifications including a Plan that follows the regulatory citations in a step-wise manner, and a summary table of how the specific facility operations meet plan requirements.

Publications and Presentations

Detection of Single Nucleotide Mismatches via Fluorescent Polymer Superquenching, Kushon, S.A.; Bradford, K.; Marin, V.; Suhrada, C.; Armitage, B.A.; McBranch, D.; Whitten, D.; Langmuir; (Article); 2003; ASAP Article; DOI: 10.1021/la034323v

Detection of DNA Hybridization via Fluorescent Polymer Superquenching, Kushon, S.A.; Ley, K.D.; Bradford, K.; Jones, R.M.; McBranch, D.; Whitten, D.; Langmuir; (Communication); 2002; 18 (20); 7245-7249. DOI: 10.1021/la026211u

Jim K. Fickerson, REA

Program Manager

Years Experience: 15

Technical Specialties

- Project Management
- Environmental Due Diligence
- Environmental Liability Cost Analysis

Summary

Mr. Fickerson is a Program Manager in AECOM's, Camarillo, California office. Mr. Fickerson is the client steward for two national real estate investment trusts and one national construction rental company. Mr. Fickerson has led the environmental due diligence of hundreds of properties of varying sizes and complexity located throughout the United States and Mexico. He has extensive experience evaluating environmental risk; managing and quantified environmental liability; negotiating with regulatory agencies; and obtaining regulatory site closure of environmentally impacted property.

Recent Representative Project Experience

June to July 2009. Sempra Generation. Mr. Fickerson performed a Phase I environmental site assessment of a proposed wind farm located in the eastern portion of Ulupalakua Ranch, Maui, Hawaii. This large site consisted of over 5,200 acres of rugged ranch land. The assessment involved a site and area reconnaissance; a review of various historical resources; an analysis of a regulatory database report, review of local and state regulatory agency files, researching the physical characteristics of the site, and preparation of a comprehensive report.

June 2007 through 2009. FPL Energy. Mr. Fickerson coordinated the environmental due diligence of a proposed parabolic solar plant located in the Fremont Valley, near California City, California. This site consisted of nearly 3,000 acres of desert, 17.6 mile transmission line, and the former Fremont Valley Ranch. These assessments have involved site and area reconnaissance; review of various historical resources; analysis of regulatory database reports, reviews of local and state regulatory agency files, researching the physical characteristics of the sites, and preparation of half a dozen reports.

February to July 2008. The Amargosa Conservancy. Mr. Fickerson managed a Phase I and II environmental site assessments of the historic mining town of Death Valley Junction, Inyo County, California. The Phase I assessment involved a site and area reconnaissance of 246 acres; a review of over 100 years of historical documents; an analysis of a regulatory database report, review of local and state regulatory agency files, researching the physical characteristics of the site, and preparation of a comprehensive report. The Phase II assessment involve the collection of soil and groundwater samples, laboratory testing of the samples, analysis of the sample results, and preparation of a report.

September 2007. Air Liquide. Mr. Fickerson performed and managed the environmental due diligence associated with the acquisition of a former gasoline fuel blending facility located on 14 acres in San Bernardino, California. Mr. Fickerson designed and implemented a comprehensive soil boring and geophysical survey program to fully evaluate over 30 recognized environmental conditions that were identified.



Arrie Bachrach

Technical Advisor

Education

M.A. (Political Science) University of California Los Angeles

B.A. (Political Science) University of California Los Angeles

Years of Experience

36

Technical Specialties

Regulatory Permitting and Compliance Support

Power Plant Licensing

Environmental Impact Reports

Environmental Impact Statements

NEPA Public Participation

Socioeconomics

CERCLA Community Relations

Risk Communication

Environmental Communications/Risk Communications

Technical Writing/Editing

Mr. Bachrach has over 35 years of experience in managing comprehensive environmental assessments of energy, industrial, and other projects, as well as preparing socioeconomic, land use, infrastructure, and traffic impact analyses, and performing as a regulatory agency and community liaison. He has served as Deputy Project Manager on four power plant AFCs (Palomar Energy Project, Victorville 2 and Palmdale Hybrid Power Projects, Beacon Solar Energy); as Project Manager on others (e.g., Black Rock Geothermal and Palen Solar Power Project); has provided senior technical guidance and review for other solar thermal projects at Blythe, Ridgecrest, and Harper Lake; managed preparation of environmental documents for a Large-scale (over 500 MW) PV project in eastern Riverside County, and provided environmental due diligence for the proposed sale of a partially completed combined-cycle plant. Mr. Bachrach is known and respected in the environmental industry as an expert on solar and other power plant project permitting.

Representative Project Experience

Beacon Solar Energy Project, Solar Thermal Power Plant Licensing, Kern County, California. Deputy Project Manager for California Energy Commission (CEC) licensing of a 250 megawatt (MW) solar thermal power plant (parabolic troughs) at a site in the California desert. The 1,900-acre site was largely disturbed by past agricultural activities, but potential impacts on special status species habitats (desert tortoise, Mohave ground squirrel, and western burrowing owl) are still key issues, as are potential impacts on water resources, cultural and visual resources. The project includes new transmission lines, and a natural gas pipeline (primarily for startup power). Comprehensive special status species surveys have been conducted in accordance with established protocols, as have cultural and paleontological resources surveys. The Application for Certification (AFC) was submitted to the CEC, deemed Data Adequate, and is currently in the later stages of the CEC licensing process.

Solar Millennium, LLC, Environmental Permitting, California. Project Manager for one of three projects, and assisting with the other two projects, to obtain environmental permits for solar thermal electric generating plant located on federal land in the desert regions of Southern California, including a site near Ridgecrest in Kern Co. The projects will range in size from 250 to 1000 MW, and will use parabolic trough mirrors. Projects involves preparation of three AFCs to the CEC, as well as supporting Environmental Impact Statement (EIS) preparation through the U.S. Bureau of Land Management (BLM). These Projects involve biological permitting including Section

7 consultation with the USFWS under the Endangered Species Act and CDFG 2081 Incidental Take Permit and Streambed Alteration Agreement programs, as well as all other local, air district (e.g., KCAPCD) and regional (e.g., Lahontan RWQCB) permits. The power plants will utilize air cooled condensers for cooling.

Confidential Client, Geothermal Power Plant Licensing, Imperial County, California. Project Manager for CEC licensing of a major modification to a proposed geothermal power generation facility in Imperial County. The project was previously licensed by the CEC but was shelved for several years and the revised project used a different geothermal technology (single flash v. multiple flash), involved three 53-MW geothermal (v. one 1215 MW plant) a larger plant site (that included the original plant site), a completely different configuration of plant site facilities, and different locations for offsite geothermal injection wells and for the geothermal production wells. These modifications were so extensive that, while titled an Amendment Petition, the document covered all the disciplines included in full CEC applications to the same depth as a full AFC. Key issues included impacts on the habitats of a number of special status wildlife species (particularly the Yuma clapper rail), air emissions during construction and operations and water supply for power plant cooling. The document is currently being processed by the CEC.

Cities of Victorville and Palmdale, Hybrid (Combined-Cycle and Solar Thermal) Power Plant Licensing, Victorville, California and Palmdale, California. Deputy Project Manager for California Energy Commission (CEC) licensing of two essentially identical 563 MW hybrid power plants combining natural gas-fired combined-cycle technology with 50 MW of solar thermal generating capacity (parabolic trough collector technology). The Victorville project is proposed on a largely undeveloped site adjacent to the Southern California Logistics Airport (formerly George Air Force Base), and also includes 21 miles of new/upgraded transmission lines and a reclaimed water pipeline to supply cooling water from a nearby wastewater treatment plant. Key issues include biological resources (habitats for a number of special status species exist on the site), cultural resources at the site and along the linear facilities routes, air quality, water resources and visual resources impacts. The AFC was judged Data Adequate by the CEC in 41 days (unusually short time) with relatively minor modifications. The project received its CEC license in July 2008. The Palmdale project is proposed on a roughly 300-acre site near Air Force Plant 42 in Palmdale. The AFC was submitted, deemed Data Adequate and currently is in the later stages of the CEC licensing process. Key issues are generally similar to the Victorville project (habitat impacts, water resources, cultural and visual resources, and air quality).

Confidential Client, Solar Power Plant Environmental Assessment, Riverside County, California. Project Manager for providing environmental services for preparation of the Plan of

Development (POD), stormwater assessment and other tasks for a utility scale photovoltaic project.

Abengoa Solar, Inc. Solar Thermal Power Plant Licensing, San Bernardino County, California. Project Manager for CEC licensing of a 250 MW solar thermal power plant (parabolic troughs) proposed near Harper Dry Lake west of Barstow in San Bernardino County. The project is proposed on a roughly 1,500-acre site adjacent to the dry lakebed; most of the site was previously in agricultural production and thus is largely disturbed. As with virtually all land intensive solar projects in the California desert, potential special status species habitat impacts are a major issue, primarily desert tortoise, Mohave ground squirrel, and Western burrowing owl. Other key issues include potential impacts on water resources, cultural resources, and visual resources. Extensive biological, cultural, and paleontological surveys have been conducted. The AFC is in preparation.

Confidential Client, Power Plant Environmental Assessment, Kern County, California. Project Manager to prepare environmental studies for a proposed power plant that would use innovative technology, located in western Kern County. The power plant included transmission, natural gas and other pipeline facilities. Various strategies to deal with issues related to the capture of greenhouse gases were investigated.

Sempra Energy, Combined-Cycle Power Plant Licensing, Escondido, California. Deputy Project Manager for the licensing by the CEC of a 550-MW gas-fired combined-cycle power plant in Escondido, California. The project was proposed within a planned industrial park, to be developed on the last major undeveloped area designated for industrial use in Escondido, a city of 130,000 people in San Diego County. Key issues included visual resources impacts, noise, air quality, biological resources impacts, and land use compatibility. The AFC was judged Data Adequate by CEC staff with only minor changes needed; CEC staff praised the quality of the document in an interview with a local newspaper in Escondido. Subsequent to the CEC licensing decision, prepared petitions to amend the CEC conditions of certification to deal with changes in project conditions with respect to allowable noise levels and the use of reclaimed water for power plant cooling. Project construction was completed and the power plant went into operation in early 2006.

SDG&E, Otay Mesa Due Diligence Assessment, San Diego County, California. Project Manager for a due diligence review related to the potential purchase of the partly constructed Otay Mesa power plant from Calpine. Review identified the status of compliance with CEC requirements, estimated costs to complete, looked at permit conditions to identify potential problems that could prevent the

plant from operating, and researched permitting issues such as biological mitigation and potential expiration of the PSD permit. Based on the risks identified by the report, SDG&E opted to negotiate the purchase of the facility to happen after construction is completed.

National Cement Company, Environmental Impact Report on Cement Plant Modifications, Lebec, California. Directed and prepared key technical analyses for the successful EIR on the proposed use of Tire Derived Fuel (shredded waste tires) as fuel at a cement plant in Kern County. The project involved modifications to the existing manufacturing facilities to allow use of this waste material as fuel, which would have the effect of lowering air toxic emissions and resulting health risks, as well as consuming discarded tires that otherwise would consume increasingly scarce solid waste landfill capacity.

BP, Refinery Modifications Environmental Impact Reports, Carson, California. Project Manager for two separate CEQA documents for modifications at BP's southern California refinery: 1) Addendum to the Final EIR for MTBE Phase-out/CARB Phase 3 Project, and 2) Initial Study/Negative Declaration for Refinery Upgrades. The EIR Addendum was required because the approach to conversion of the Refinery's MTBE Unit to other uses was modified from the original EIR. The Refinery upgrades project involved replacing an existing sour water storage tank and vacuum distillation unit, as well as modifying pressure relief valves on a crude unit. For both projects, key issues were air quality, hazards, and traffic circulation.

ConocoPhillips Petroleum, Environmental Impact Report, Rodeo, California. Responsible for the CEQA portion of ENSR's permitting support for Phillips Petroleum proposed Ultra Low Sulfur Diesel/Strategic Modernization Project at its Rodeo Refinery. This project involved refinery to allow production of ultra-low sulfur diesel fuel to meet upcoming regulatory requirements, as well as to improve the overall efficiency and productivity of the refinery.. Key issues included air emissions, potential hazardous materials impacts and risks, and construction phase traffic and noise impacts.

Chevron Products Company, EIR on Heavy Crude Project, El Segundo, California. Played a key role in the CEQA review of a proposed project to make modifications to Chevron's EL Segundo Refinery to allow the refinery to efficiently process heavier crude oils that are expected to become an increasingly important share of the crudes that the refinery receives. Prepared a number of the technical analyses for the CEQA Initial Study that demonstrated that the project would have minimal impacts and no further evaluations were required in several issue areas (e.g., visual resources, land use,



socioeconomics), and directed the traffic and transportation study prepared by a subcontractor.

Appendix K

Cultural Resources

Portions of this appendix are confidential, but are available upon request
to qualified professionals

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Draft Memorandum of Agreement

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MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF LAND MANAGEMENT,
DESERT SUNLIGHT HOLDINGS, LLC, AND
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE DESERT SUNLIGHT SOLAR FARM PROJECT,
RIVERSIDE COUNTY, CALIFORNIA

WHEREAS, an Application for a right of way (ROW) grant on approximately 5,000 acres of public lands managed by the Bureau of Land Management (BLM) and a Plan of Development (POD) to construct, operate and maintain a solar energy electrical generating plant has been submitted for the Desert Sunlight Solar Farm Project, including installation of photovoltaic (PV) solar modules and other component elements of a PV electrical generating facility, including perimeter and access routes, on approximately 4,245 acres; an approximately 12 mile long 220 kilovolt (kV) generation interconnection line with access routes (“Gen-Tie Line”), ; and a substation and related facilities to interconnect the project to the regional high-voltage transmission grid.

WHEREAS, the BLM has determined that issuing a right-of-way grant (ROW) to First Solar Inc. in accordance with the Federal Land Policy and Management Act (FLPMA) (Public Law 940-579; 43 USC 1701) is an undertaking as defined at 36 CFR 800.16(y); and

WHEREAS, the BLM is the lead Federal agency for the undertaking for the purpose of complying with Section 106 of the NHPA and its implementing regulations found at 36 CFR Part 800, and the BLM shall be responsible for managing historic properties within the Area of Potential Effects (APE) for the undertaking pursuant to the NHPA.

WHEREAS, the BLM has consulted with the California State Historic Preservation Officer (SHPO) pursuant to 36 CFR § 800.16(y) and Stipulation VI(A) and Appendix C of the 2007 *State Protocol Agreement among the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer and the Nevada State Historic Preservation Officer regarding the manner in which the Bureau of Land Management will meet its responsibilities under the National Historic Preservation Act and the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers* (Protocol); and

WHEREAS, in August 2005, the United States Congress enacted the Energy Policy Act of 2005 (Public Law 109-58). In section 211 of this Act, Congress directed that the Secretary of the Interior (the “Secretary”) should, before the end of the 10-year period beginning on the date of

39 enactment of the Act, seek to have approved non-hydropower renewable energy projects located
40 on the public lands with a generation capacity of at least 10,000 megawatts of electricity; and
41

42 **WHEREAS**, by Secretarial Order No. 3285 issued March 11, 2009, the Secretary stated as
43 policy that encouraging the production, development, and delivery of renewable energy is one of
44 the Department of Interior's (DOI) highest priorities and that agencies and bureaus within the
45 DOI will work collaboratively with each other, and with other Federal agencies, departments,
46 states, local communities, and private landowners to encourage the timely and responsible
47 development of renewable energy and associated transmission while protecting and enhancing
48 the Nation's water, wildlife, and other natural resources; and
49

50 **WHEREAS**, BLM, in consultation with the SHPO, has thoroughly considered alternatives, has
51 determined that adverse effects to all archaeological sites could not be avoided if BLM issues a
52 Right of Way for the construction of this solar facility, and

53 **WHEREAS**, BLM has identified fifty-seven (57) historic properties within the APE, thirteen
54 (13) of which are eligible to the National Register and of those thirteen (13), nine (9) are World
55 War II-era Desert Training Center (DTC) related resources (P33-018233, 018235, 018236,
56 018238, 018241, 018334, 018338, 18340, and 018392), and one is an historic community dump
57 (P33-015095) which may be adversely affected. Direct effects will be avoided when possible and
58 full data recovery will be accomplished when avoidance is not possible. The project will result in
59 (indirect) adverse effects to the settings of the historic landscape of DTC and the listed North
60 Chuckwalla Mountains Petroglyph District (P33-001383). The resolution of any such effects will
61 be made through the implementation of this Memorandum of Agreement.

62 **WHEREAS**, The BLM has notified the Advisory Council on Historic Preservation (ACHP) to
63 the adverse effect, pursuant to 36 CFR 800.6(a)(1); and

64 **WHEREAS**, the Desert Sunlight Historic Property Treatment Plan (DSHPTP) would be
65 developed prior to the issuance of a Notice to Proceed. The DSHPTP would take into account the
66 Undertaking's adverse effects on these historic properties through the recovery and interpretation
67 of significant historical and scientific information; and

68 **WHEREAS**, the BLM through internal funding will insure that adequate funds and trained
69 personnel are directed to the historical/archaeological study to insure that the DSHPTP is
70 completed according to its guidance; and

71 **NOW, THEREFORE**, BLM and the SHPO agree that the Undertaking shall be implemented in
72 accordance with the following stipulations in order to take into account the effects of the
73 Undertaking on the historic properties and further agree that these stipulations shall govern the
74 Undertaking and all of its parts until this MOA expires or is terminated.

75

76

77 **STIPULATIONS**

78 The BLM shall ensure that the following measures are carried out:

79 **I. AREA OF POTENTIAL EFFECT**

- 80 a. The signatory parties agree eligible historic properties P33-018233, P33-018235,
81 P33-018236, P33-018238, P33-018241, P33-018334, P33-018338, P33-18340, P33-
82 018392, P33-015095, and P33-001383 are located within the undertaking’s area of
83 potential effect (APE).

84 **II. TREATMENT OF HISTORIC PROPERTIES**

- 85 a. The BLM shall ensure that the Historic Property Treatment Plan known as the Desert
86 Sunlight Historic Property Treatment Plan (DSHPTP) is implemented prior to a
87 Notice to Proceed. Due to the sites’ scientific and historical value, detailed
88 documentation, data recovery and archival studies are prescribed at any adversely
89 effected eligible sites.
90

91 **III. REPORTING REQUIREMENTS**

- 92 a. Prior to issuance of the Notice to Proceed, the BLM would ensure preparation, and
93 concurrent distribution to the SHPO, the ACHP, the Tribes, and other interested
94 parties (reviewing parties), a written draft DSHPTP that documents the results of
95 implementing the requirements of Stipulation II. The reviewing parties will be
96 afforded thirty (30) days following receipt of the DSHPTP to submit any written
97 comments to the BLM. Failure of these parties to respond within this time frame shall
98 not preclude the BLM from authorizing revisions to the draft DSHPTP as the BLM
99 may deem appropriate. The BLM will provide the reviewing parties with written
100 documentation indicating whether and how the DSHPTP would be modified in
101 accordance with any reviewing party comments. Unless the reviewing parties object
102 to the DSHPTP, in writing to the BLM within thirty (30) days following receipt, the
103 BLM may modify the draft DSHPTP as the BLM may deem appropriate. All
104 objections shall be resolved pursuant to Stipulation V.c.1. Thereafter, the BLM may
105 issue the DSHPTP in final form and distribute this document in accordance with
106 Paragraph (b) of this stipulation.
107

- 108 b. Copies of the final DSHPTP documenting the results of implementing the
109 requirements of Stipulation II, would be distributed by the BLM to the SHPO, the
110 ACHP, the Tribes, and other interested parties.
111

112 **IV. DISCOVERIES AND UNANTICIPATED EFFECTS**

- 113
114 a. If the BLM determines during implementation of the DSHPTP that either the
115 Treatment Plan or the Undertaking will affect a previously unidentified property that
116 may be eligible for the NRHP, or affect a known historic property in an unanticipated
117 manner, the BLM will address the discovery or unanticipated effect in accordance
118 with those provisions of the DSHPTP that relate to the treatment of discoveries and
119 unanticipated effects. The BLM at its discretion may hereunder assume any

121 discovered property to be eligible for inclusion in the National Register. The BLM
122 compliance with this stipulation shall satisfy the requirements of 36 CFR §
123 800.13(a)(2).
124

125 V. ADMINISTRATIVE STIPULATIONS

126 a. STANDARDS

- 127
- 128
- 129 1. Professional Qualifications. All activities prescribed by Stipulations II, III, and IV
130 of this MOA shall be carried out under the authority of the BLM by or under the
131 direct supervision of a person or persons meeting, at a minimum, the Secretary of
132 the Interior's Standards: *Professional Qualifications Standards* (PQS) (48 FR
133 44738-39) in the appropriate disciplines. However, nothing in this stipulation may
134 be interpreted to preclude the BLM or any agent or contractor thereof from using
135 the properly supervised services of persons who do not meet the PQS.
136
- 137 2. Historic Preservation Standards. All activities prescribed by stipulations I, II, III
138 and IV of this MOA shall reasonably conform to the BLM 8100 Manual System
139 as well as to applicable standards and guidelines established by the *Secretary of*
140 *Interior's Standards and Guidelines for Archaeology and Historic Preservation*
141 (48 FR 44716-44740) and SHPO.
142
- 143 3. Curation and Curation Standards. The BLM shall ensure that, to the extent
144 permitted by applicable federal law, that the materials and records resulting from
145 the activities prescribed by Stipulations II, III, and IV of this MOA are curated in
146 accordance with 36 CFR Part 79.
147

148 b. CONFIDENTIALITY

- 149
- 150 1. The parties to this MOA acknowledge that historic properties covered by this
151 MOA are subject to the provisions of §304 of the National Historic Preservation
152 Act of 1966 relating to the disclosure of archaeological site information and
153 having so acknowledged, will ensure that all actions and documentation
154 prescribed by this MOA are consistent with the Act.
155

156 c. RESOLVING OBJECTIONS

- 157
- 158 1. Should a non-government organization, Indian Tribe, or local, State or Federal
159 agency reasonably object at any time to the manner in which the terms of this
160 MOA are implemented, or to any action carried out or proposed with respect to
161 implementation of the MOA (other than the Undertaking itself) or to any
162 documentation prepared in accordance with and subject to the terms of this MOA,
163 the BLM or the SHPO shall immediately notify the other parties to this MOA of an
164 external objection and BLM shall then consult with the objecting
165 group/agency/Tribe for no more than fourteen (14) days to resolve the objection.
166 The BLM shall reasonably determine when this consultation will commence. If the

167 objection is resolved through such consultation, the action in dispute may proceed
168 in accordance with the terms of that resolution. If, after initiating such
169 consultation, the BLM determines that the objection cannot be resolved through
170 consultation, then the BLM shall forward all documentation relevant to the
171 objection to the ACHP, including the BLM's proposed response to the objection,
172 with the expectation that the ACHP will, within thirty (30) days after receipt of
173 such documentation:

- 174 a. advise the BLM that the ACHP concurs in the BLM's proposed response to
175 the objection, whereupon the BLM will respond to the objection accordingly;
176 or
177
- 178 b. provide the BLM with recommendations, which the BLM will take into
179 account in reaching a final decision regarding its response to the objection; or
180
- 181 c. notify the BLM that the objection will be referred for comment pursuant to 36
182 CFR § 800.7(a)(4), and proceed to refer the objection and comment. The
183 BLM shall take the resulting comments into account in accordance with 36
184 CFR § 800.7(c)(4) and Section 110(1) of the NHPA.
185

186
187 2. Should the ACHP not exercise one of the following options within thirty (30) days
188 after receipt of all pertinent documentation, the BLM may assume the ACHP's
189 concurrence in its proposed response to the objection.

190 3. The BLM shall take into account any ACHP recommendation or comment
191 provided in accordance with this stipulation with reference only to the subject of
192 the objection. The BLM's responsibility to carry out all other actions under this
193 MOA that are not the subject of the objection will remain unchanged.
194

195 4. The BLM shall provide the SHPO, external objector(s), and the ACHP, when the
196 ACHP has issued comments hereunder, with a copy of its final written decision
197 regarding any objection addressed pursuant to this stipulation.
198

199 5. The BLM may authorize any action subject to objection under this stipulation to
200 proceed after the objection has been resolved in accordance with the terms of this
201 stipulation.
202

203 6. At any time during implementation of the measures stipulated in this MOA, should
204 an objection pertaining to such implementation be raised by a member of the
205 public, the BLM shall notify the SHPO in writing of the objection and take the
206 objection into consideration. The BLM shall consult with the objecting party and,
207 if the objecting party so requests, with the SHPO for no more than fifteen (15)
208 days. Within ten (10) days following closure of this consultation period, the BLM
209 would render a decision regarding the objection and notify the SHPO of its
210 decision in writing. In reaching its decision, the BLM will take into account any
211 comments from the SHPO and the objecting party. The BLM's decision regarding

212 the resolution of the objection would be final. The BLM may authorize any action
213 subject to objection under this paragraph to proceed after the objection has been
214 resolved in accordance with the terms of this paragraph.
215

216 **VI. AMENDMENTS**

217 1. Any party to this MOA may propose that this MOA be amended, whereupon the
218 parties to this MOA will consult for no more than thirty (30) days to consider such
219 amendment. The amendment process shall comply with 36 CFR §§ 800.6(c)(1) and
220 800.6(c)(7). This MOA may be amended only upon the written agreement of the
221 signatory parties. If it is not amended, this MOA may be terminated by either
222 signatory party in accordance with Stipulation VII.
223
224

225 2. Attachments may be amended through consultation among the parties without
226 amending the MOA.
227

228 **VII. TERMINATION**

- 229 1. If this MOA is not amended as provided for in Stipulation VI., or if either signatory
230 party proposes termination of this MOA for other reasons, the signatory party
231 proposing termination shall, in writing, notify the other parties to this MOA, explain
232 the reasons for proposing termination, and consult with the other parties for at least
233 thirty (30) days to seek alternatives to termination. Such consultation shall not be
234 required if the BLM proposes termination because the Undertaking no longer meets
235 the definition set forth in 36 CFR § 800.16(y).
236
- 237 2. Should such consultation result in an agreement on an alternative to termination, then
238 the Parties shall proceed in accordance with the terms of that agreement.
239
- 240 3. Should such consultation fail, the signatory party proposing termination may terminate
241 this MOA by promptly notifying the other parties to this MOA, in writing.
242 Termination hereunder shall render this MOA without further force or effect.
243
- 244 4. If this MOA is terminated hereunder, and if the BLM determines that the Undertaking
245 will nonetheless proceed, then the BLM shall either consult in accordance with 36
246 CFR § 800.6 to develop a new MOA or request the comments of the ACHP pursuant
247 to 36 CFR Part 800.
248

249 **VIII. DURATION OF THE MOA**

- 250
- 251 1. Unless terminated pursuant to Stipulation VII, or unless it is superseded by an
252 amended MOA, this MOA will be in effect for five (5) years following execution by
253 the signatory parties or until the BLM, in consultation with the SHPO, determines
254 that all of its stipulations have been satisfactorily fulfilled. This MOA will then
255 terminate and have no further force or effect.

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2. The terms of this MOA shall be satisfactorily fulfilled within one (1) year following the date of execution by SHPO. If the BLM determines that this requirement cannot be met, the parties to this MOA will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment or termination. In the event of termination, the BLM will comply with Stipulation V if it determines that the Undertaking will proceed notwithstanding termination of this MOA.
 3. If the Undertaking has not been implemented within one (1) year following execution of this MOA by the SHPO, this MOA shall automatically terminate and have no further force or effect. In such event, the BLM shall notify the other parties in writing and, if it chooses to continue with the Undertaking, shall reinstate review of the Undertaking in accordance with 36 CFR Part 800.

271 **IX. EFFECTIVE DATE**

- 272 1. This MOA will take effect on the date that it has been executed by SHPO.
273

274 **X. EXECUTION** of this MOA by the BLM and the SHPO, its transmittal by the BLM to the
275 ACHP in accordance with 36 CFR § 800.6(b)(1)(iv), and subsequent implementation of its
276 terms, shall evidence, pursuant to 36 CFR § 800.6(c), that this MOA is an agreement with
277 the ACHP for purposes of Section 110(1) of the NHPA, and shall further evidence that the
278 BLM has afforded the ACHP an opportunity to comment on the Undertaking and its effect
279 on historic properties, and that the BLM has taken into account the effects of the
280 Undertaking on historic properties.
281

282

283

284 **SIGNATORY PARTIES:**

285

286 Bureau of Land Management

287

288

289 By _____

290 John Kalish Date

291 Palm Springs Field Office Manager

292

293

294 California State Historic Preservation Officer

295

296

297 By _____

298 Date

299 State Historic Preservation Officer

300

301

302

303 Desert Sunlight Holdings, LLC

304

305

306 By _____

307 Date

308

Notes on PA from Meeting with BLM on April 23, 2010

The PA will describe the process for BLM to follow to identify historic properties within the APE and to resolve adverse effects to historic properties from the proposed project. The PA is not a decision document. It is required regardless of the decision to approve or not approve the project. Participation in the PA process as a consulting party does not imply consent/approval of the project. The PA must be signed prior to the ROD.

Signatory Parties:

- Lead = BLM
- SHPO
- ACHP (so far has declined, reserves right to join process later)
- CPUC
- First Solar

Invited Concurring Parties:

- Indian Tribes (26)
- California Union for Reliable Energy (CURE)
- National Trust for Historic Preservation
- Sacred Lands Institute (?)
- And potential others that submit written request to BLM (will be considered by BLM in consultation w/ SHPO and ACHP)

PA will document:

- The process for activities to proceed in areas where no historic properties exist
- The process for the phased completion of field investigations for the evaluation of resources and assessment of effects
- The procedure to resolve adverse effects
- Coordination between the CEQA process and Section 106 compliance
- Procedure for inadvertent discoveries
- Process for treating human remains
- Compliance monitoring
- Dispute resolution
- Tribal participation

PA will include as Appendices (among others):

HPTP/Mitigation Plan

Discovery Plan

Process for PA development

- BLM will provide ECORP with a template w/ initial language (based on recent similar projects)
- ECORP will tailor PA for Desert Sunlight in coordination with First Solar
- BLM will review and comment; ECORP to revise as needed
- Initial Draft to all consulting parties--30 days for review and comment
- Use electronic delivery of draft versions to expedite review and conference calls with all signatories as needed. Schedule in-person meetings only if necessary

Other Comments:

Rolla Queen (BLM): The PA will allow work to proceed in a phased approach to clear areas where there are no historic properties so work can begin there while we deal with areas that contain historic properties that would have adverse effects. This allows flexibility.

Locations of archaeological sites and sacred sites will not be identified in the EIS. The document will only state that they occur in the area. The EIS will give enough information to the public to evaluate impacts of the alternatives, but protect sensitive resources.

Treatment of adverse effects will not be limited to excavation. It may include research and documentation, and use or creation of historic contexts (esp. of landscape features like DTC and prehistoric trails). DTC is best handled through a historic context. The artifacts and features are limited in their informational potential, but they have associative significance.

Only need to sign PA prior to ROD. PA can be implemented after ROD.

Dwight Dutschke (SHPO): Agrees with phased approach.

Chris Dalu (BLM): First Solar should work with its consultants to identify areas where work can proceed—areas that are clear of CR, bio, and other issues. Notices to Proceed (NTP) will be issued by BLM for specific portions of the APE. BLM regulations state that they can issue NTPs in stages for a project.

Chris agrees that DTC research will be far more valuable than field work. Sources include aerial photographs and the National Archives, among other available publications, maps, and reports.

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Native American Consultations



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Palm Springs-South Coast Field Office

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Palm Springs, CA 92262-8001

(760) 833-7100 Fax (760) 833-7199



Visit us on the Internet at
www.blm.gov/ca/palmsprings/

APR 15 2010

In Reply Refer To:

8100 (P)

CAD060.66

CACA 048649

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Chairman Richard Milanovich
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

RE: First Solar Desert Sunlight Solar Power Generation Project, Riverside County, California

Chairman Milanovich:

The Bureau of Land Management Palm Springs Field Office (BLM) is currently reviewing an application from First Solar Development, Inc. (Applicant), for a right-of-way (ROW) grant to develop a photovoltaic solar energy generating facility, referred to as the Desert Sunlight Power Project, on federal land in eastern Riverside County. Pursuant to section 106 of the National Historic Preservation Act (NHPA), the BLM has concluded that this proposed project has reached a level of complexity such that a programmatic agreement (PA) will be required to resolve issues related to inventory and evaluation efforts, potential effects to historic properties, and proposed treatment strategies. The BLM has notified the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) of our intent to develop a PA pursuant to 36 CFR 800.14(b)(3) of the section 106 implementing regulations. The BLM has been consulting with the Tribe on this proposed project and is now seeking to determine whether the Tribe would like to join in consultation with the BLM, the SHPO, the ACHP and other consulting parties in developing a PA for this undertaking.

The Applicant is proposing to develop a solar powered photovoltaic electrical generating facility north of the town of Desert Center, California, west of State Highway 177 (please see enclosed maps). The Project will include components such as photovoltaic solar cell panels, and an on-site substation. Once constructed, the proposed Project would permanently occupy approximately 4,092 acres with an additional 228 acres of linear facilities including a new electrical substation (90 acres).

The area of potential effect (APE) encompasses approximately 7,240 acres and includes the proposed generation plant, alternative transmission line interconnects, and alternate substation locations south of the proposed solar facility, where the system will interconnect with existing utility transmission lines.

We would like to summarize activities which have been carried out to date for the purposes of conducting the review of this proposed First Solar Desert Sunlight Solar Power Project.

In processing the applications, the BLM must comply with the requirements of the National Environmental Policy Act (NEPA), which requires that Federal agencies reviewing projects under their jurisdiction consider the environmental impacts associated with their construction and operation. This will be accomplished through preparation of a Draft and Final Environmental Impact Statement (EIS).

Status of Cultural Resource Studies

ECORP is the cultural resources consultant for this project. A BLM Class III survey was conducted over 4,245 acres of the APE alternatives and areas since removed from the proposed project footprint. The BLM is expecting the preliminary results of survey via a draft report in mid to late May, 2010. The survey efforts, to date, have resulted in the identification of 157 archaeological sites and 198 isolates. Of the 157 sites identified, 46 are prehistoric, 101 are historic. The isolates include 101 prehistoric and 198 historic finds. The final draft Cultural Resources Class III Survey Report from the consultant is expected in mid or late May, 2010.

Status of Consultation with Native American Tribes

With the filing of the application for a right-of-way, the BLM took the lead in formal Tribal consultation pursuant to the NHPA as well as other laws and regulations. The Native American Heritage Commission was contacted by letter about the project and they provided a list of Tribal contacts. We then initiated Section 106 consultation in the early stages of project planning by letter in November 2009 and have followed up with an additional letter and other information since then. To date, fourteen Tribes or related institutions have been identified and invited to consult on this project including those listed below. The Tribes as well as the general public were also invited to a general informational meeting about the project held on January 28, 2010. We have thus far received one written comment letter from Mike Jackson, President of the Ft. Yuma Quechan Tribe, and one e-mail memo from H. Jill McCormick, Cultural Resources Manager, Cocopah Indian Tribe. Communications have been ongoing between concerned parties since the early planning efforts in the summer of 2009, and consultation will continue throughout the process.

List of Tribes or Related Institutions Contacted:

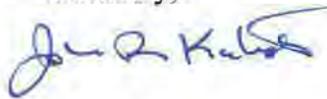
Cabazon Band of Mission Indians	Colorado River Indian Tribes
Augustine Band of Cahuilla Mission Indians	Cocopah Tribal Council
Agua Caliente Band of Cahuilla Indians THPO	San Manuel Band of Mission Indians
Morongongo Band of Mission Indians	Ft. Yuma Quechan Indian Tribe
Chemehuevi Reservation	Torres-Martinez Desert Cahuilla Indians
Colorado River Reservation	Twenty-Nine Palms Band of Mission Indians
Fort Mojave Indian Tribe	Ramona Band of Mission Indians
Pauma Band of Luiseño Mission Indians	

Programmatic Agreement

As noted at the outset of this letter, our primary purpose is to notify the Tribe that BLM is proposing to develop a PA to govern the section 106 review of this project and to seek to determine whether the Tribe would like to consult and participate in the development of the PA. Even if the Tribe elects not to participate in the development of a PA for this project, BLM will continue to keep the Tribe informed and consult on this project.

We appreciate your review of our request and look forward to hearing whether you would like to participate in consultation on this undertaking. If you have specific questions or need any clarification, please contact George Kline, BLM Palm Springs Archaeologist, at (760) 833-7135.

Sincerely,



John R. Kalish
Field Manager

Enclosures - 1

1. Map: 04/07/2010 2009-104.003 Desert Sunlight Class III Surveys. ECORP Consulting, Inc.

cc electronically:

Rolla Queen (Rolla_Queen@blm.gov)
Charlotte Hunter (Charlotte_Hunter@blm.gov)
Greg Miller (Greg_Miller@blm.gov)

Appendix L
CPUC Mitigation Monitoring and
Reporting

CPUC Mitigation Monitoring and Reporting

The California Public Utilities Commission's (CPUC) Decision on the Red Bluff Substation will include a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) for the Red Bluff Substation component of the First Solar Desert Sunlight Farm Project. The MMCRP will include a list of adopted mitigation measures proposed in this EIS that would be required at the Red Bluff Substation. The recommended framework for the implementation of the MMCRP by the CPUC is described below. This framework outlines CPUC's coordination with the NEPA Lead Agency and public lands manager, the Bureau of Land Management (BLM), and the roles and responsibilities of government agencies in implementing and enforcing adopted mitigation for the Red Bluff Substation only.

1.1 Authority for the Mitigation Monitoring, Compliance, and Reporting Program

1.1.1 California Public Utilities Commission

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a Mitigation Monitoring, Compliance, and Reporting Program when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. *CEQA Guidelines* Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring or reporting.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SCE's application for a Permit to Construct (PTC). If the Commission approves the application, it will also adopt a Mitigation Monitoring, Compliance, and Reporting Program that includes the mitigation measures ultimately made a condition of approval by the Commission.

1.1.2 Bureau of Land Management

BLM is the federal Lead Agency for the preparation of this EIS in compliance with NEPA, the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the BLM NEPA guidance handbook (H-1790-1). As the Lead Agency, BLM is also responsible for ensuring that mitigation measures are implemented on its land.

BLM intends to work with the CPUC in implementation of mitigation monitoring during construction of the Red Bluff Substation. After CPUC approval of PTC, CPUC would coordinate with BLM staff on review and approval of preconstruction compliance documents for the Red Bluff Substation, as well as on

the issuance of the notice to proceed (NTP) for the substation. BLM would use the CPUC's environmental contractor for monitoring of the substation construction.

1.2 Organization of the Final Mitigation Monitoring Plan

If the Red Bluff Substation or an alternative to the substation is approved, the MMCRP will serve as a self-contained general reference for the Mitigation Monitoring Program adopted by the CPUC and BLM for the substation. To accomplish this, the Final Mitigation Monitoring Plan would contain seven elements (as indicated below). The elements of the Mitigation Monitoring Plan are as follows:

MMCRP Introduction

- Authority and Purpose of the Program
- Agencies with Jurisdiction
- Project Description
- Program Adoption Process
- Organization of the MMCRP

Roles and Responsibilities

- Organization and Roles of Each Entity

Communication

- Pre-Construction Compliance
- Agency Compliance Website
- Communication Protocol
- Weekly Progress Meetings
- Daily Communication
- Coordination with Other Agencies Before and During Construction
- Contact List

Environmental Compliance and Field Procedures

- Mitigation Measures Compliance and Reporting
- Mitigation Implementation Dispute Resolution
- Project Refinements
- General Reporting Requirements
- Lessons Learned from Past CPUC Projects

Records Management

- Agency Records
- Public Access to Records

The CPUC's Final MMCRP will contain a concise overview and reference description of the approved Red Bluff Substation project that clearly outlines the project timetable. It will also specify the "master" reference(s) which the monitors and the Applicant will use in carrying out the Program, e.g., the Final EIS, but also more detailed working maps and plans. The Applicant Measures, to which SCE has committed to reduce potential impacts, will also be listed in this section.

The Final MMCRP will include the list of agencies with jurisdiction over the project, and a description of where their respective jurisdictions exist. For example, the Final Plan will state what region of the California Department of Fish and Game has jurisdiction, provide the name of the regional manager, the address, telephone and fax numbers.

1.3 Roles and Responsibilities

The CPUC and BLM will be responsible for ensuring full compliance with the provisions of this monitoring program and have primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC and BLM for the Red Bluff Substation are implemented and that mitigated environmental impacts are reduced to the level identified in the Program.

The CPUC and/or BLM may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities. The number of construction monitors assigned to the project will depend on the number of concurrent construction activities. The CPUC and BLM, however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CPUC and BLM must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the project, the Applicant must submit the final program to CPUC and BLM for review and approval for at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor to ensure that appropriate agency reviews and approvals are obtained.

The CPUC and BLM along with its environmental monitors will also ensure that any variance process or deviation from the procedures identified under the monitoring program is consistent with CEQA and NEPA requirements; no project variance will be approved by the CPUC and BLM if it creates new significant impacts. As defined in this section, a variance should be strictly limited to minor project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A project change that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA and/or NEPA review is required. Any proposed deviation from the approved project, adopted mitigation measures, and Applicant Measures, and correction of such deviation, shall be reported immediately to the CPUC, the BLM, and the environmental monitor for their review and approval. In some cases, a variance may also require approval by a CEQA or NEPA responsible agency.

1.4 Enforcement Responsibility

The CPUC and BLM are responsible for enforcing the procedures adopted for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC and BLM.

The CPUC and BLM have the authority to halt any construction, operation, or maintenance activity associated with the Red Bluff Substation project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The CPUC and/or BLM may assign this authority to the environmental monitor.

1.5 Mitigation Compliance Responsibility

The Applicant, SCE, is responsible for successfully implementing all the adopted mitigation measures in the MMCRP. The MMCRP will contain criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include success criteria that are listed in table at the end of each issue area section. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

The Applicant shall inform the CPUC, the BLM, and their monitors in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC and BLM in coordination with their monitors will assess whether alternative mitigation is appropriate and specify to SCE the subsequent actions required.

1.6 Dispute Resolution

It is expected that the Final MMCRP will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such event, the following procedure will be observed:

- Step 1.** Differences in mitigation implementation approaches, disputes, and complaints (including those of the public) should be directed to the CPUC PM for resolution. The PM will attempt to resolve the dispute with SCE's Environmental Project Manager.
- Step 2.** Should this informal process fail, the CPUC PM may initiate enforcement or compliance action to address deviations from the Project or adopted Mitigation Monitoring Program, if they have occurred without prior authorization or variance.
- Step 3.** If the differences, dispute, or complaint regarding the implementation or evaluation of the Program or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, the affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) will meet or confer with the filer and other affected participants to resolve the dispute. The Executive Director will issue an Executive Resolution describing the decision, and serve the filer and other affected participants.
- Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission. Appeals should be addressed by the Commission within 30 days of receipt of the appeal.

Involved parties may also seek review by the Commission through procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

Separate enforcement steps by the regulatory agencies may follow different steps or procedures. The CPUC PM and the SCE Environmental PM or SME will coordinate with other permitting agencies for issues outside the CPUC jurisdiction.

The dispute resolution process could occur concurrently with the communication protocol during construction for non-compliant events.

1.7 General Monitoring Procedures

1.7.1 Environmental Monitor

Many of the monitoring procedures will be conducted during the construction phase of the project. The CPUC, the BLM, and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to the project must be onsite during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

1.7.2 Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in the Final Implementation Plan, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SCE and any construction contractors. Procedures to be followed by construction crews will be written into a separate agreement that all construction personnel will be asked to sign, denoting consent to the procedures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the monitoring program (as detailed in the Final Implementation Plan).
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

1.7.3 General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the project. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

1.7.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available by the CPUC for public inspection on request, consistent with critical infrastructure requirements and requirements to protect cultural resources. In order to facilitate the public's awareness, the CPUC will post the MMCRP document to the CPUC public website, and will make weekly reports and other pertinent project documents available on the project. Access to Critical Energy Infrastructure Information (CEII) documentation and location of protected cultural resources will not be available on the CPUC's public website. Other monitoring compliance reports, copies of permits, and

documents will also be available in their final form on the CPUC's project website once they are approved by the CPUC or other agencies.

1.8 Condition Effectiveness Review

As required by CEQA, the CPUC must evaluate the effectiveness of the mitigation measures that are implemented. In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a Mitigation Monitoring Program to ensure compliance during project implementation (Public Resources Code § 21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined in 1.6; and
- If in either review, the Commission determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the Commission may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the Commission's rules and practices.

1.9 Mitigation Monitoring Program Tables

Mitigation measures are presented in the Executive Summary, Table ES-3 of this EIS. In addition, the CPUC's Decision on the Red Bluff Substation will include a list of adopted measures that are relevant to the Red Bluff Substation. These tables, along with the full text of the mitigation measures themselves, will form the basis for implementation of the Mitigation Monitoring Program.