

**Appendix J**

**Phase I Environmental Site**

**Assessment**

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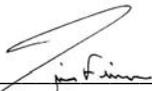
# Phase I Environmental Site Assessment of the Proposed Desert Sunlight Solar Farm Project Riverside County, California

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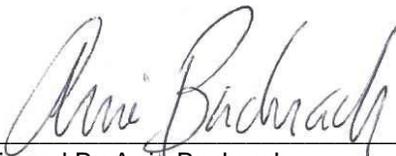
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## Executive Summary

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 36<sup>th</sup> 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 36<sup>th</sup> 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 36<sup>th</sup> 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 36<sup>th</sup> 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 36<sup>th</sup> 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 (HWMI) 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.

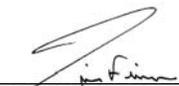
Signature:

  
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 C.

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, 4<sup>th</sup> Floor, Oakland, California 94607, (510) 625-7405, [abeck@firstsolar.com](mailto: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.

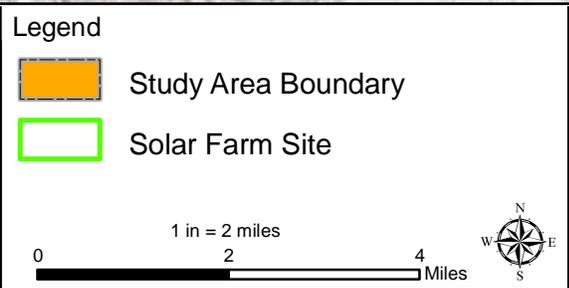
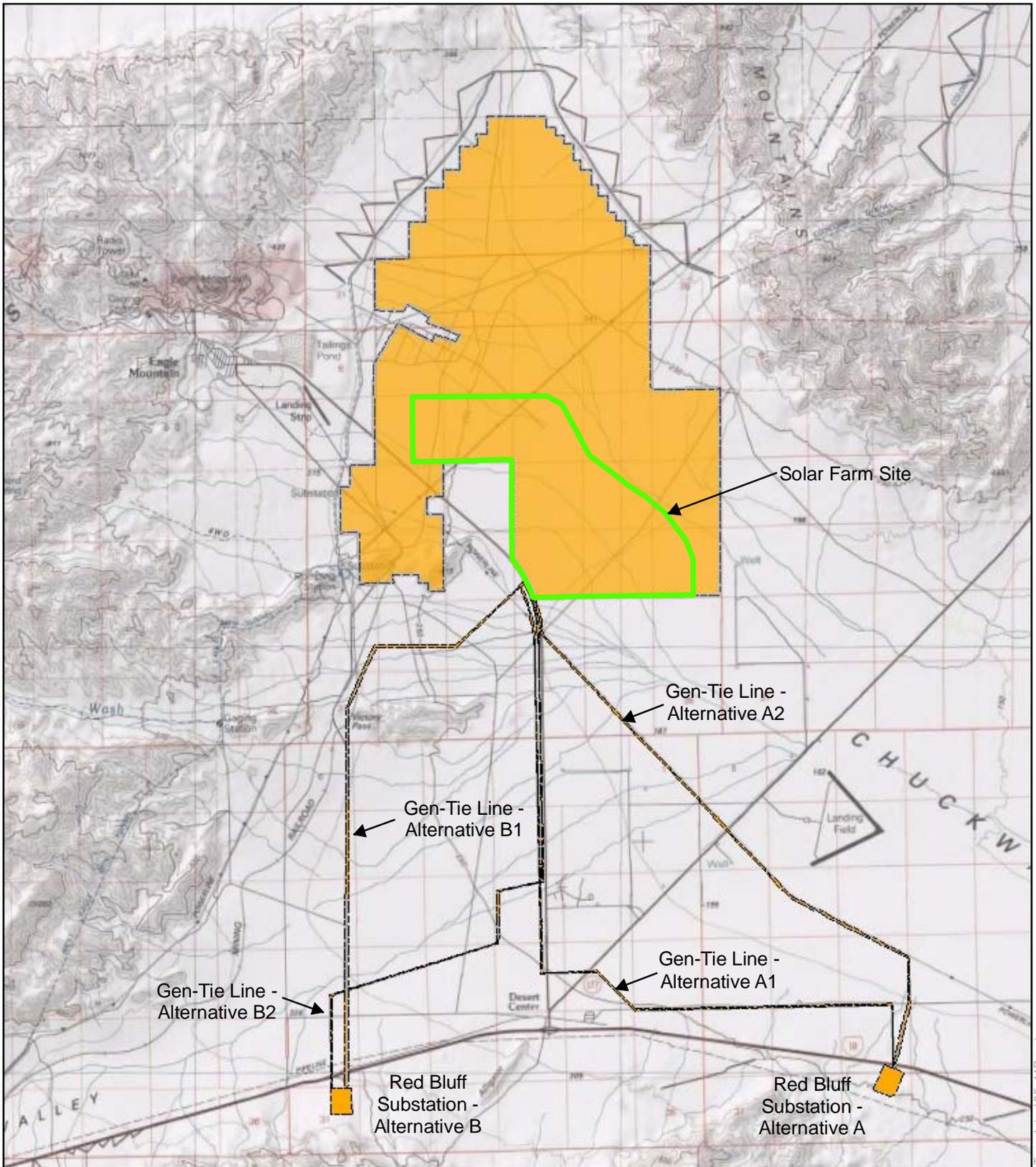
State Department of Toxic Substances Control (DTSC). EnviroStor online database search conducted at <http://www.envirostor.dtsc.ca.gov/public/>

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](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

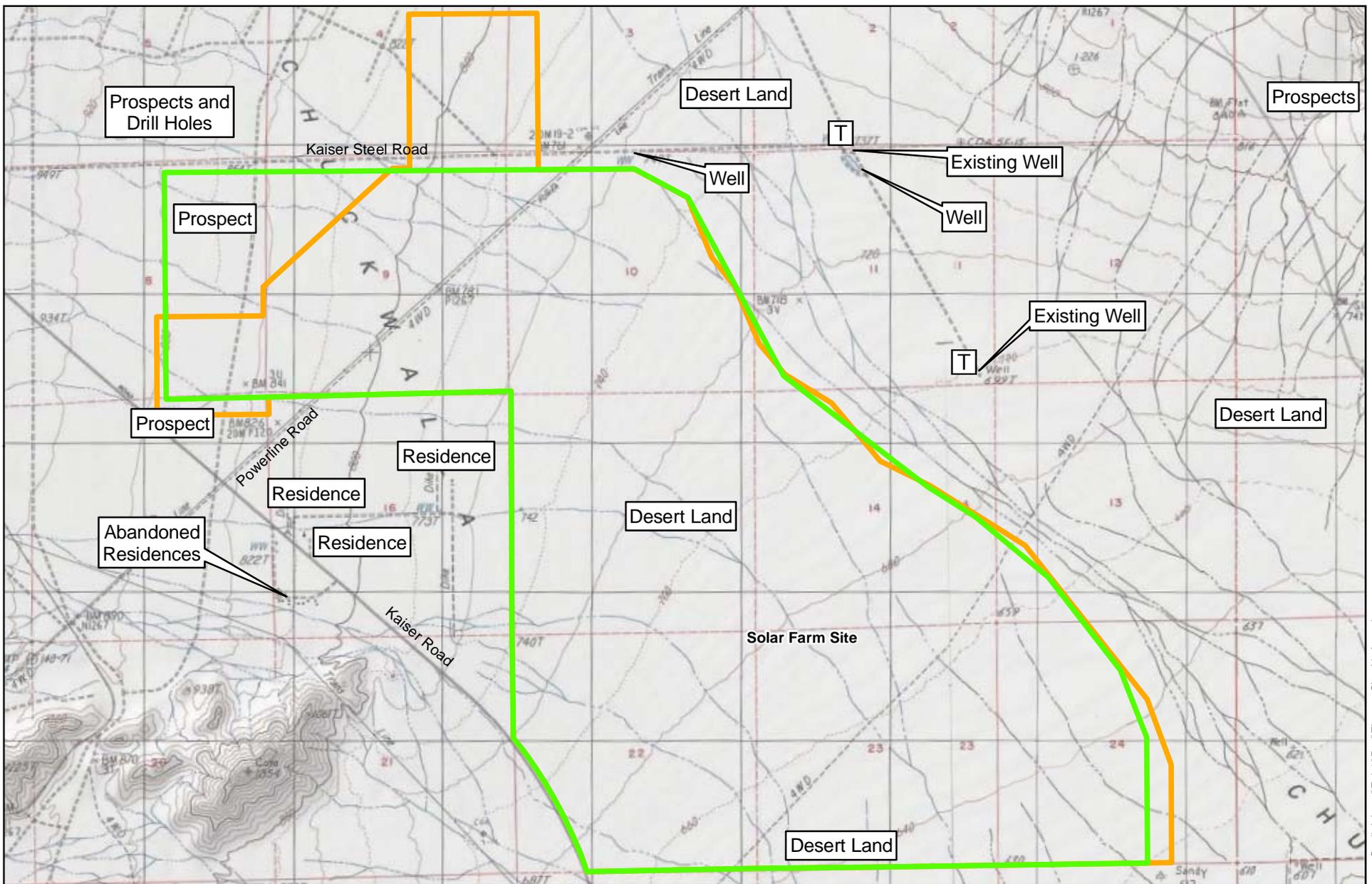


**Desert Sunlight  
Solar Farm Project**

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




Project: 60139386.004  
Date: March 2010



**Legend**

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

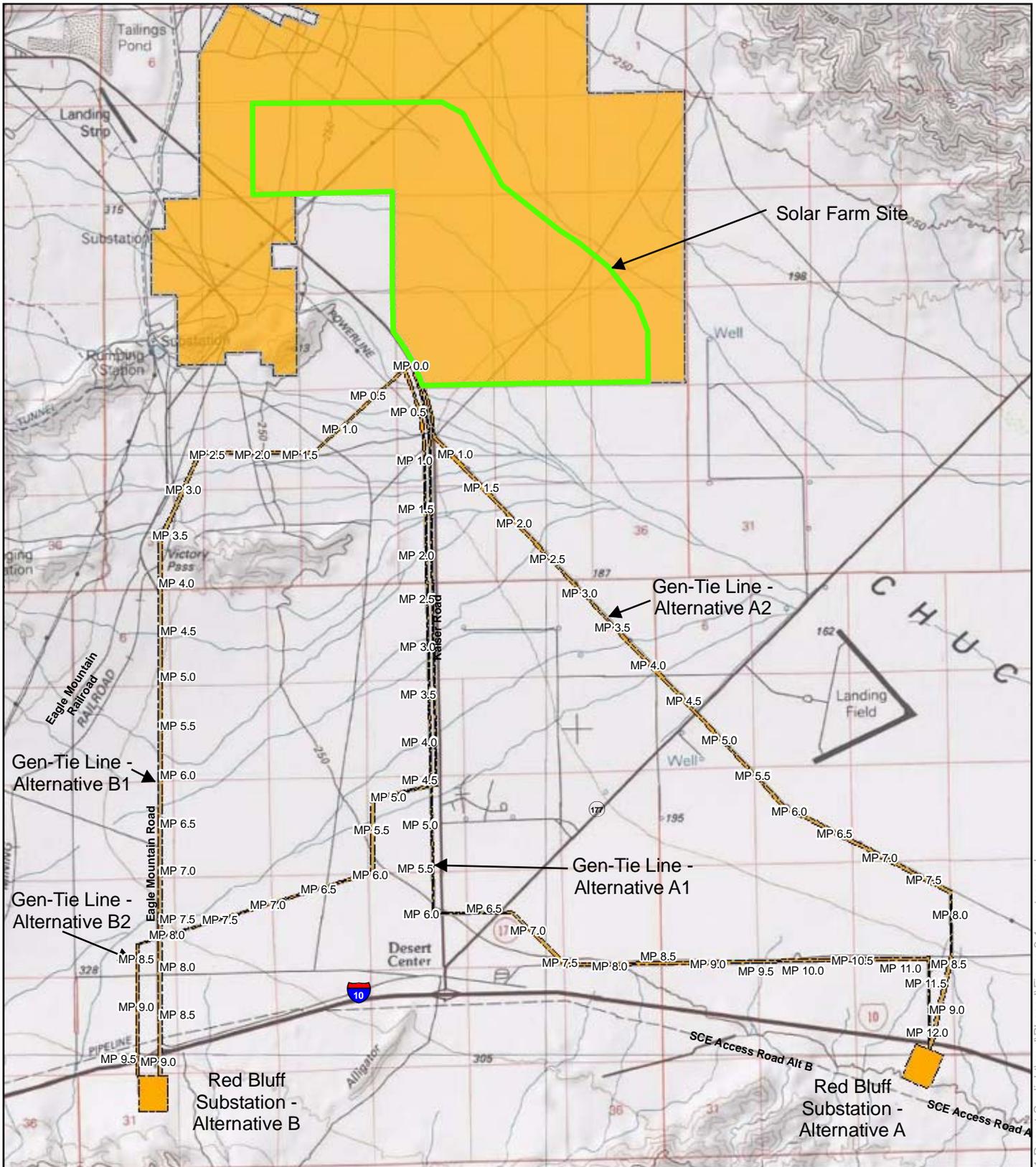
1 inch = 3,000 feet

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
- MP 2.5 Milepoint Designations

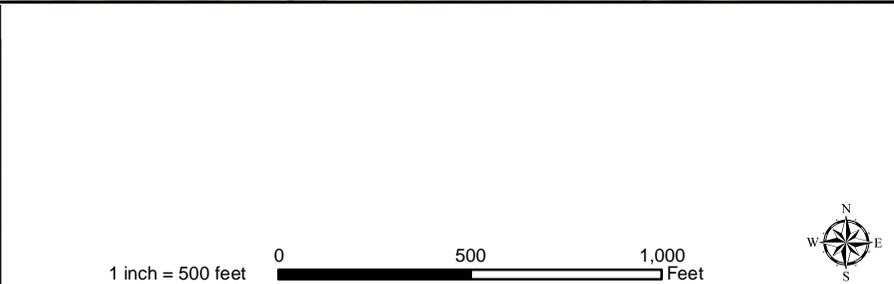
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**Desert Sunlight Solar Farm Project**

**Figure 3-1 Gen-Tie Line Detail Map**

Project: 60149119-100  
Date: April 2010

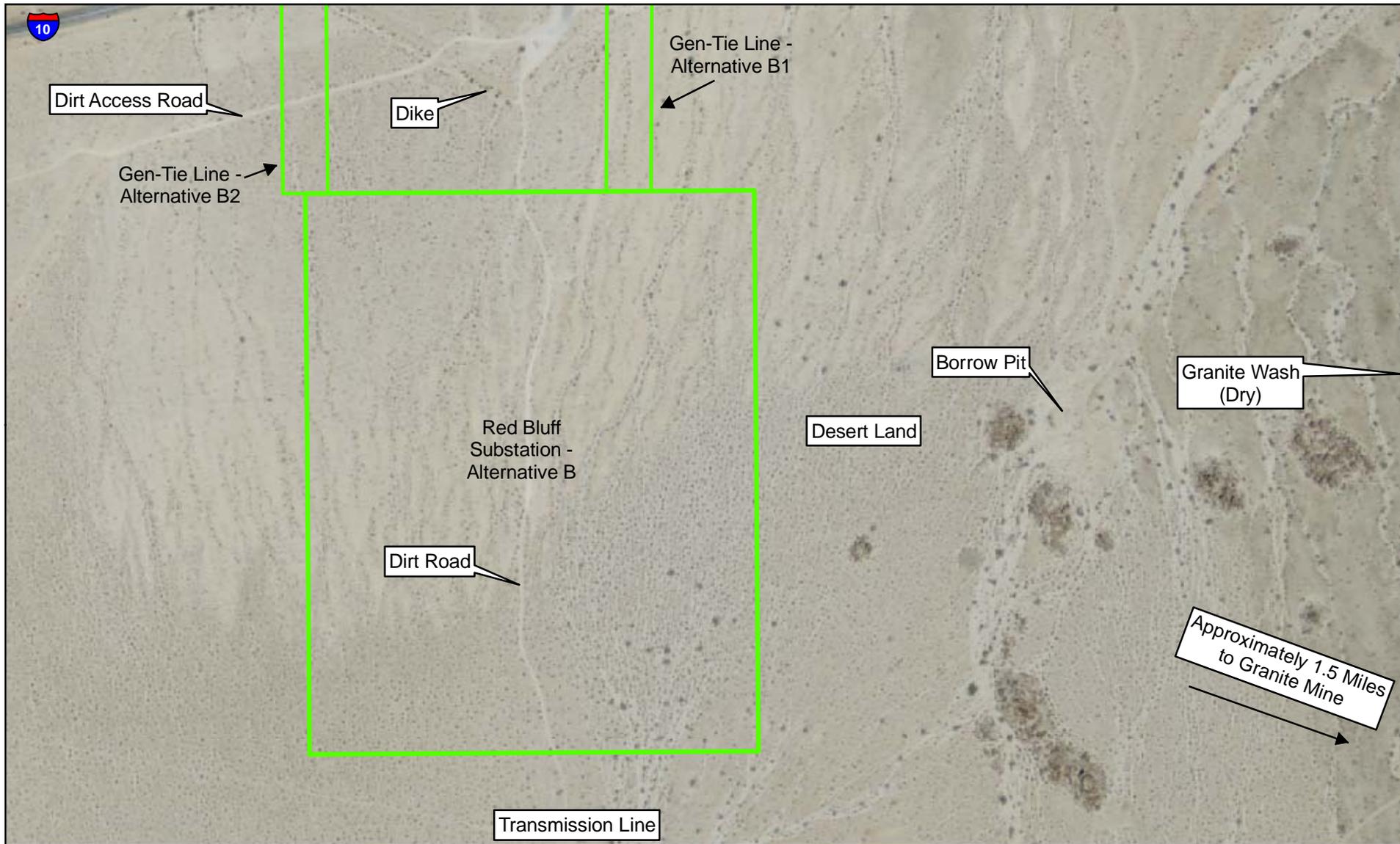
J:\GIS\Projects\12414-First\_Solar\011-Desert\_Sunlight\mxd\Phase I\Figure 3-1\_routes.mxd



**Desert Sunlight  
Solar Farm Project**

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

Project: 60149119-100  
Date: March 2010

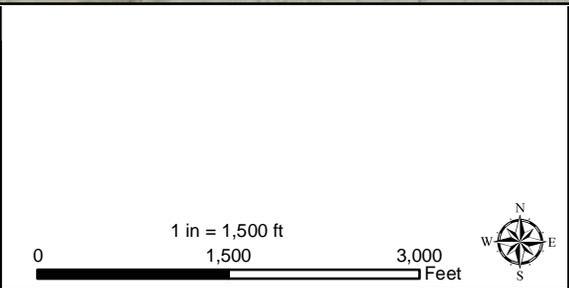
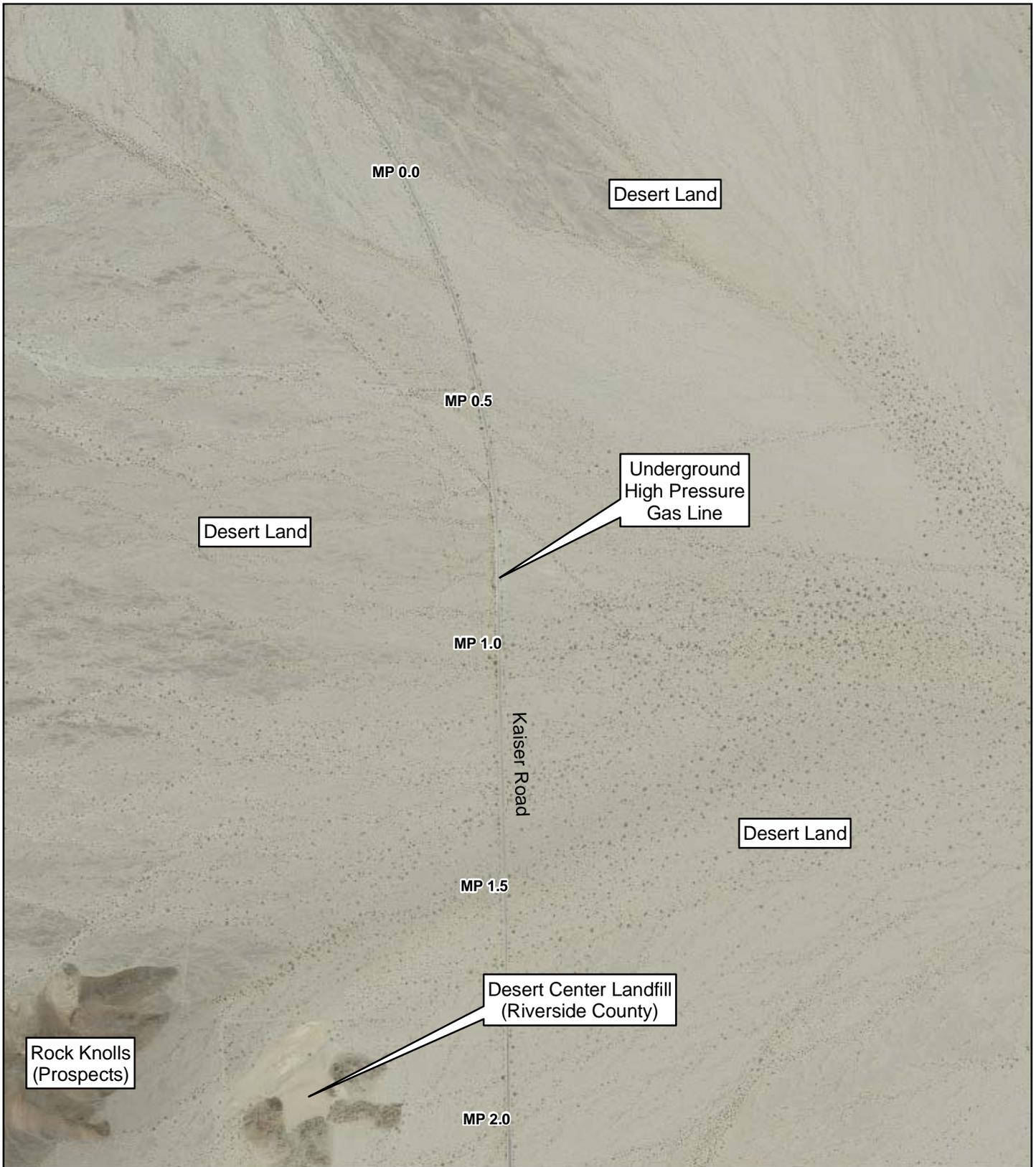


**Desert Sunlight  
Solar Farm Project**

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



Project: 60149119-100  
Date: March 2010

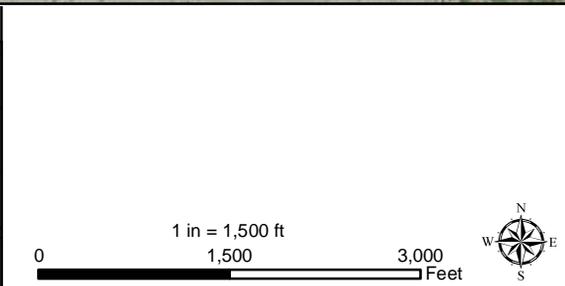
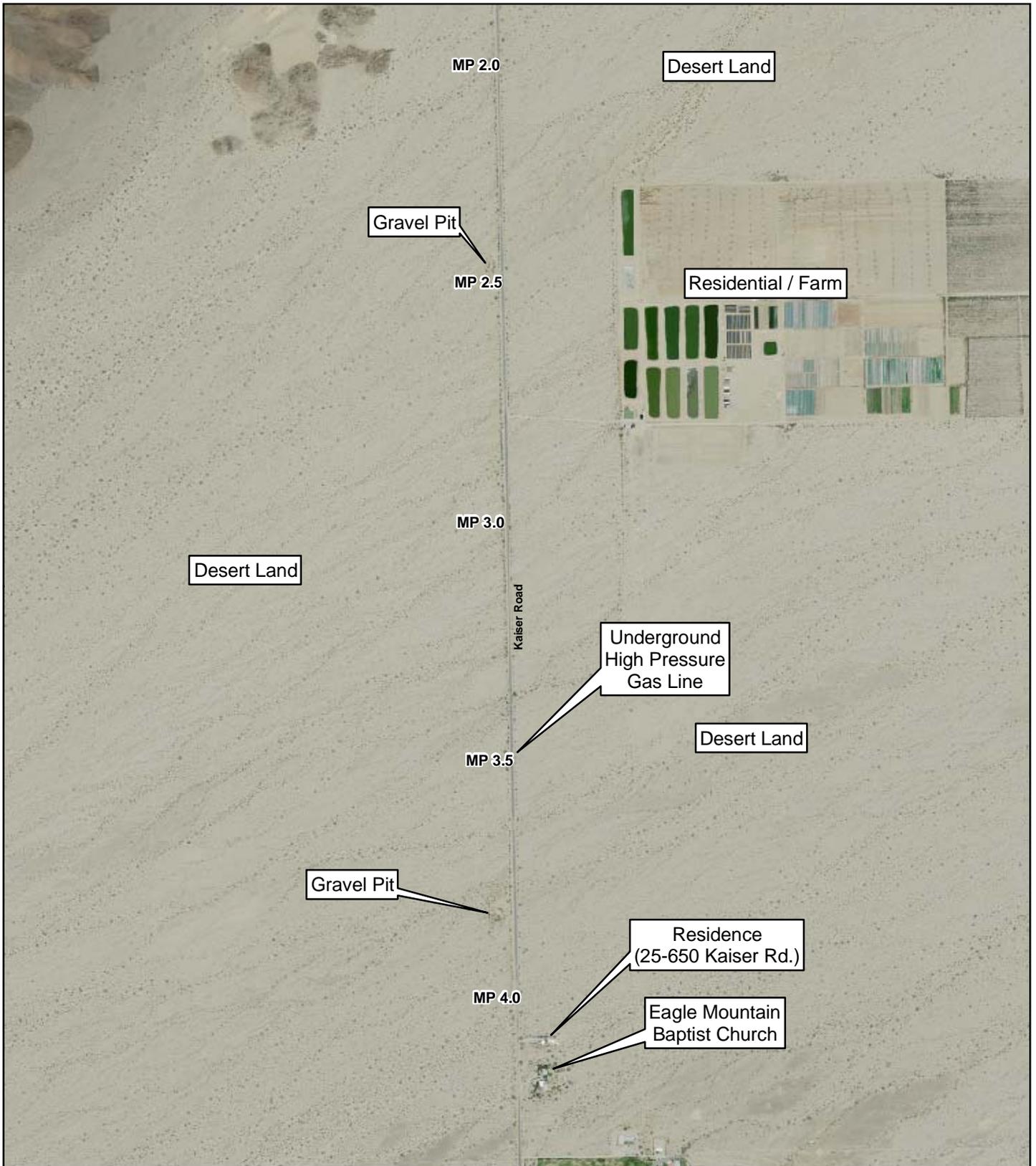


**Desert Sunlight Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

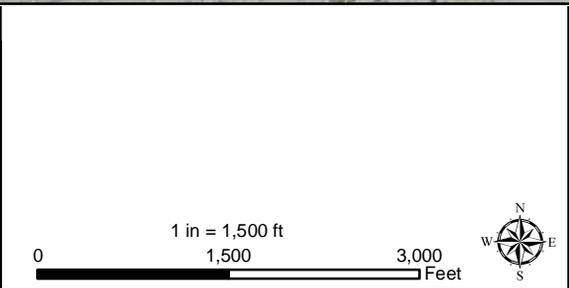
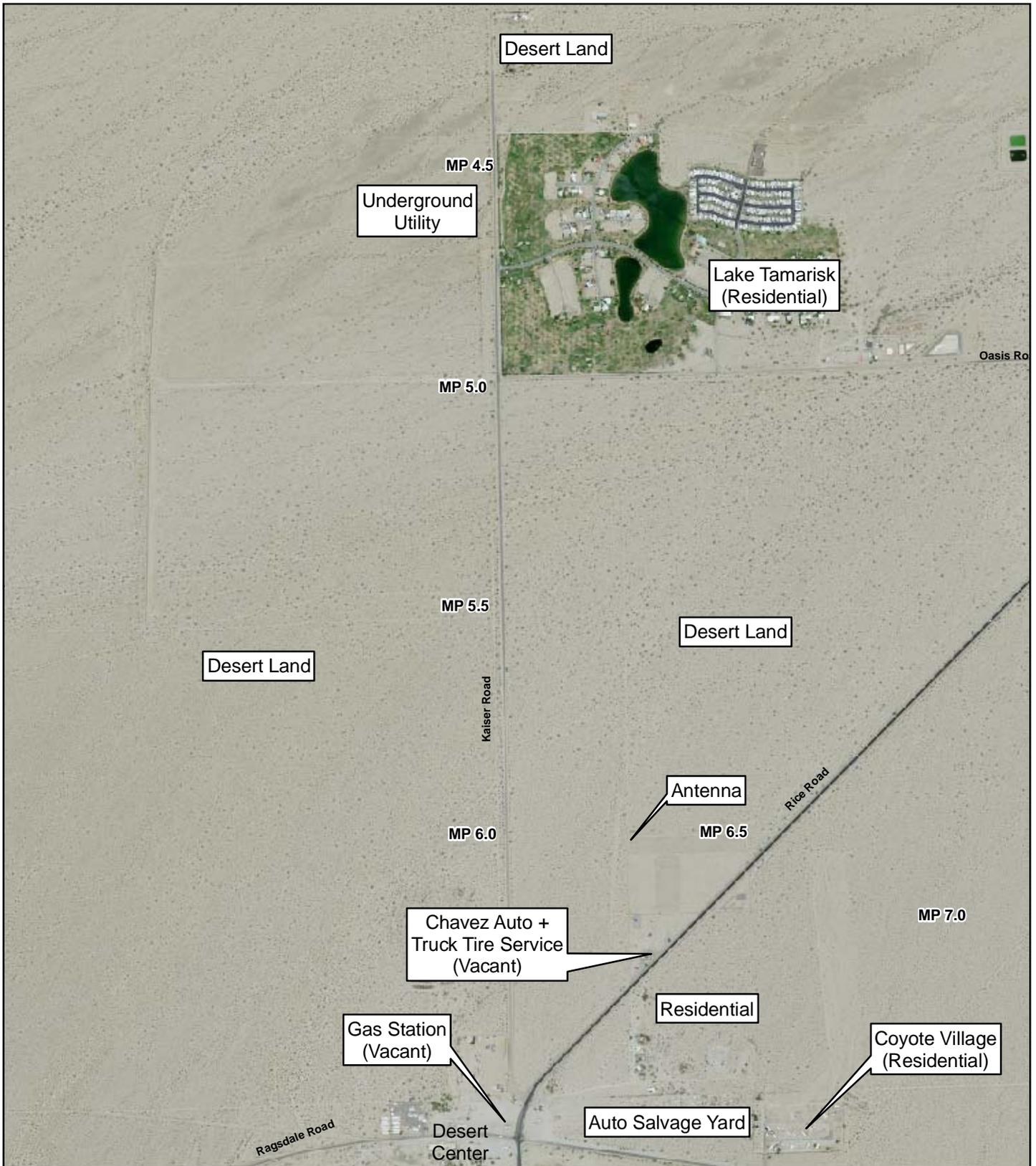


**Desert Sunlight Solar Farm Project**

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



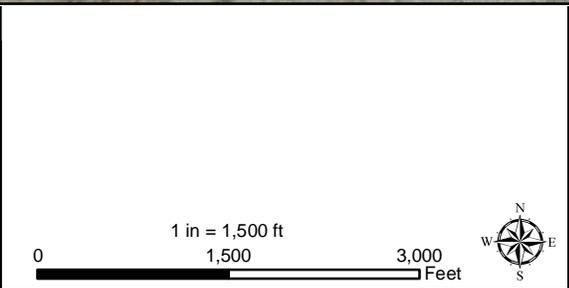

Project: 60149119-100  
Date: April 2010



**Desert Sunlight  
Solar Farm Project**

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

Project: 60149119-100  
Date: April 2010



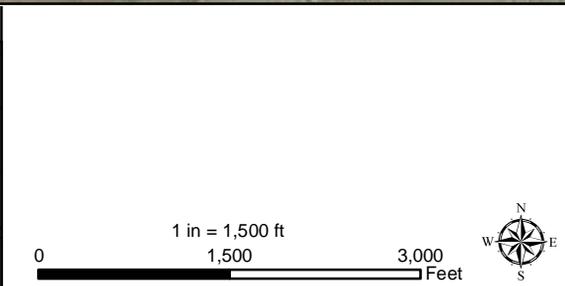
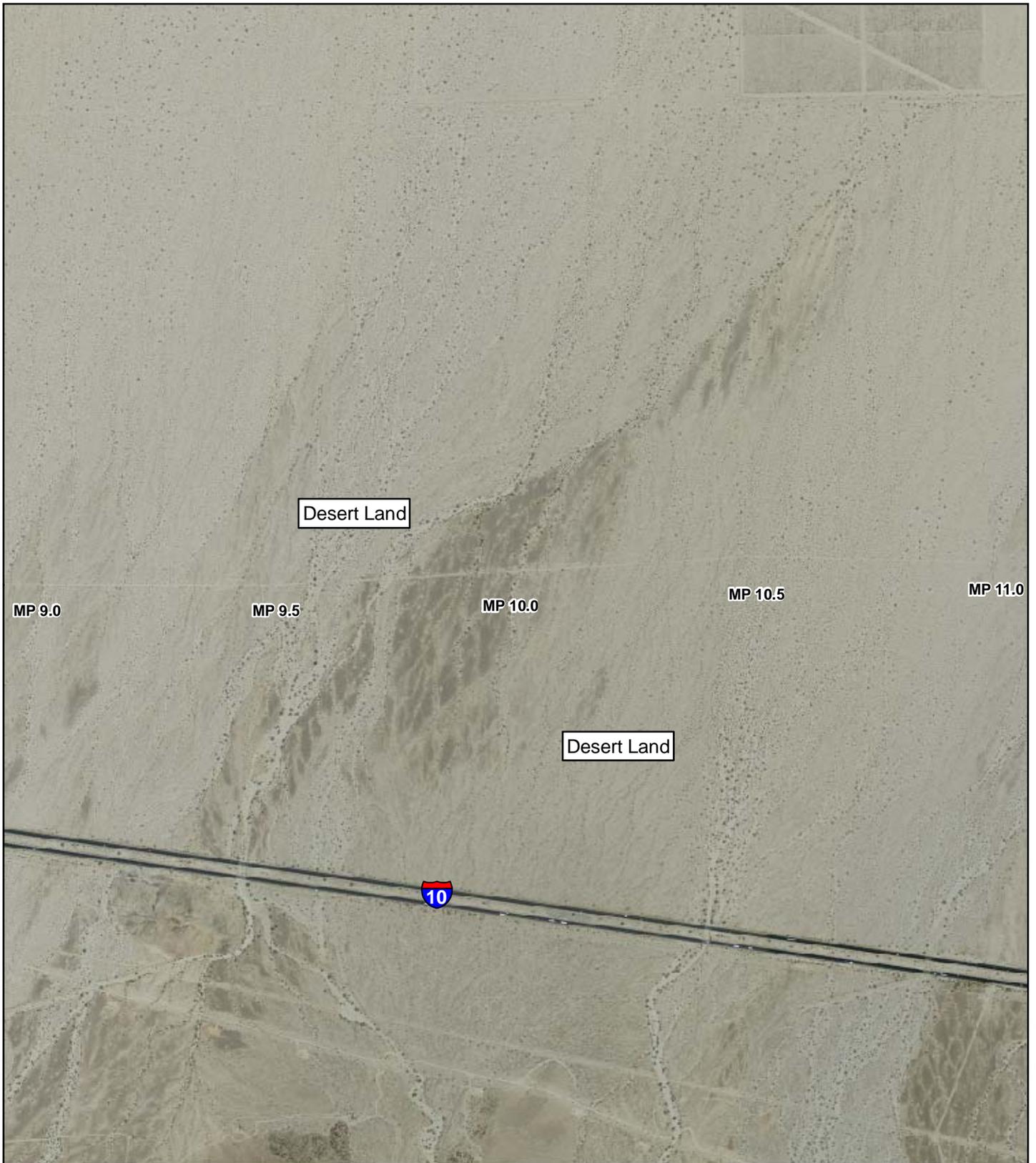
**Desert Sunlight  
Solar Farm Project**

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

**First Solar.**

**AECOM**

Project: 60149119-100  
Date: April 2010



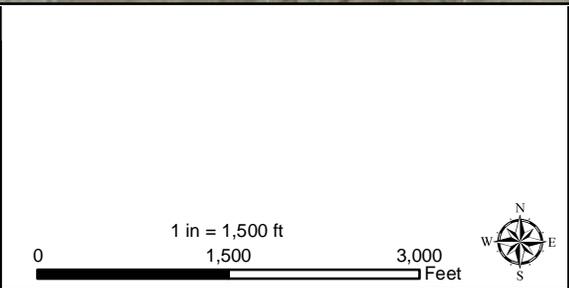
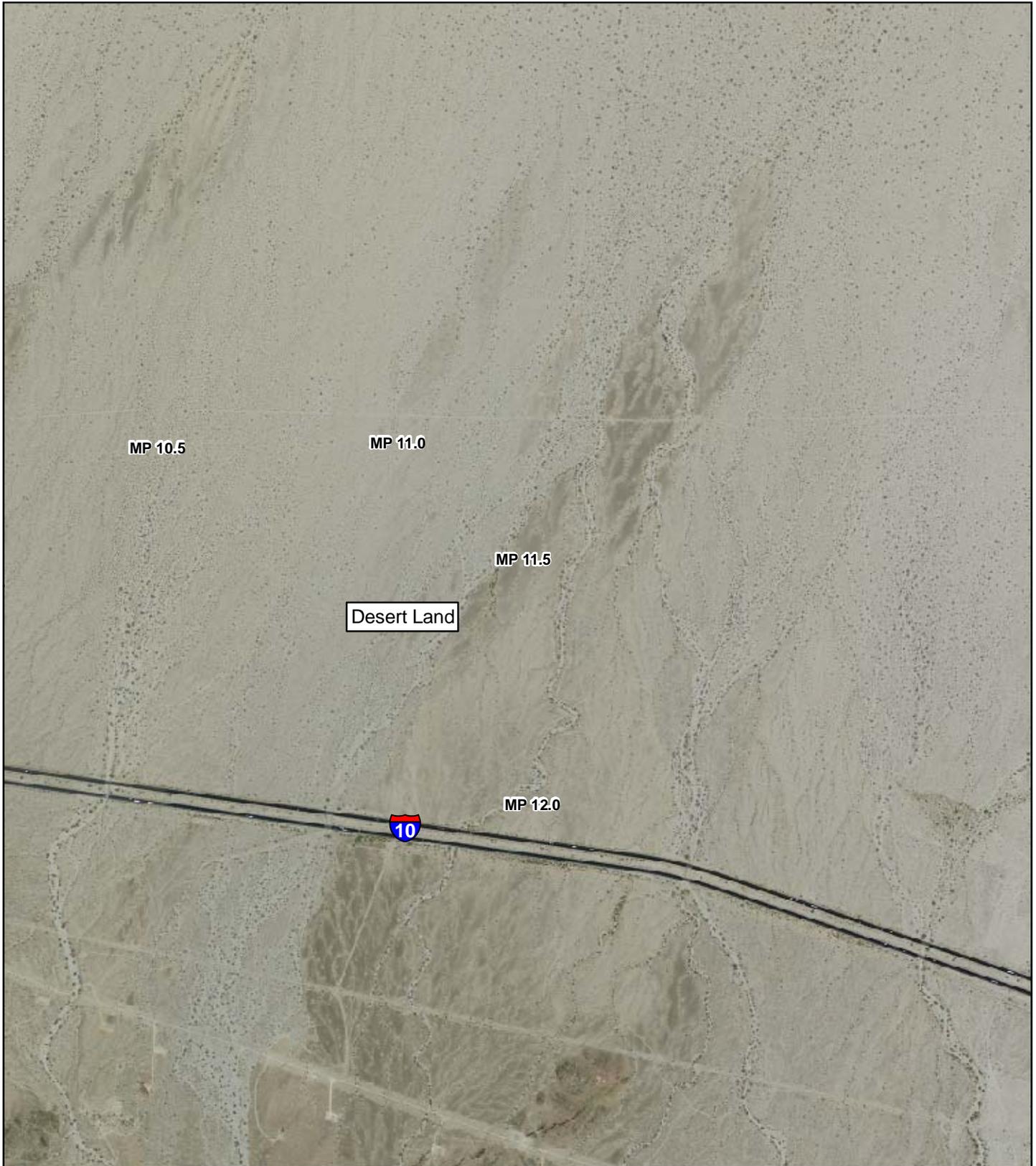
**Desert Sunlight  
Solar Farm Project**

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



**AECOM**

Project: 60149119-100  
Date: April 2010

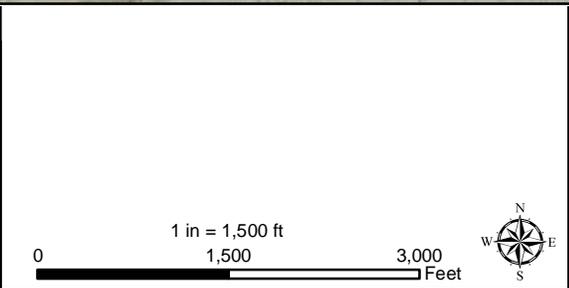
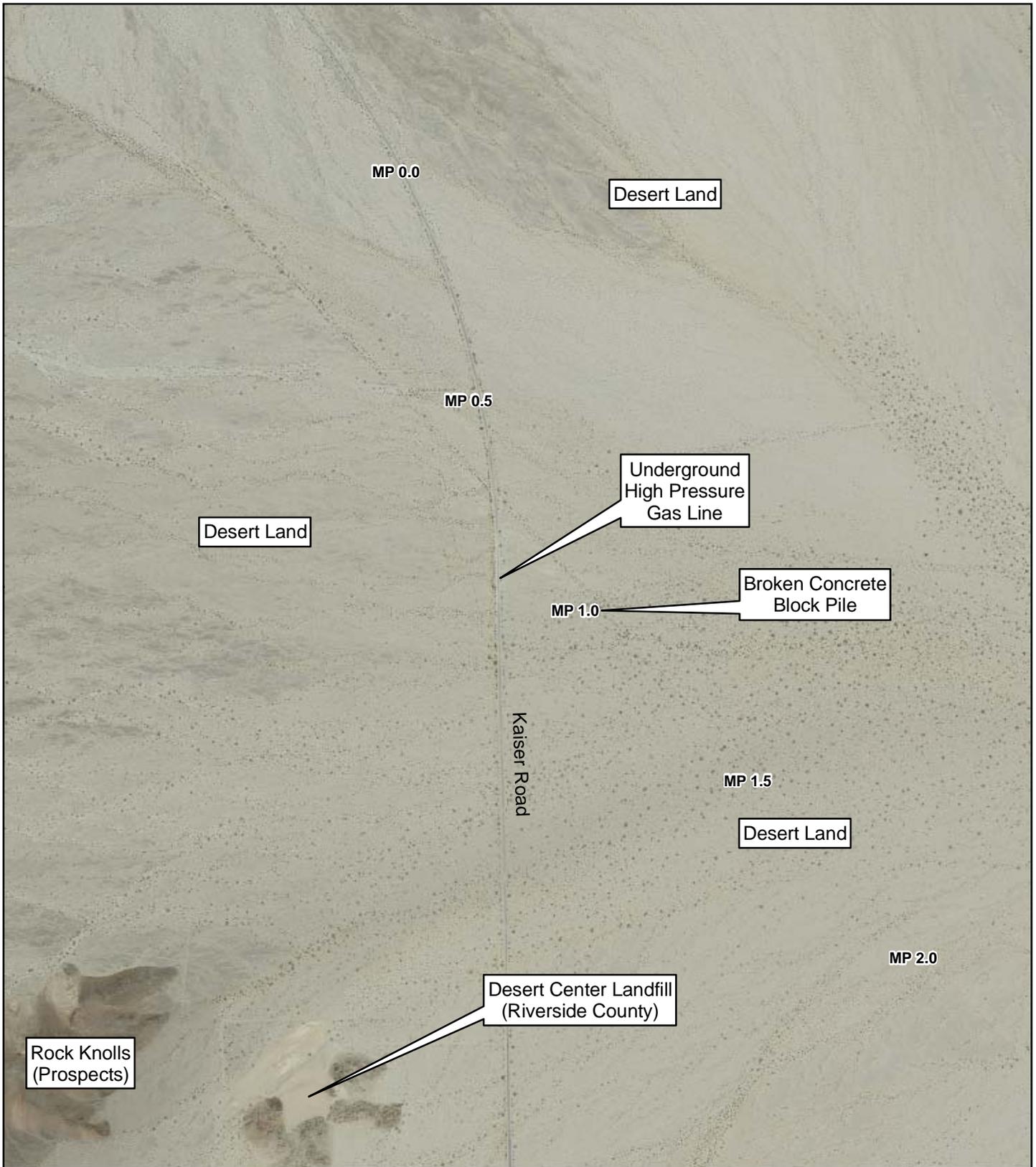


**Desert Sunlight  
Solar Farm Project**

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



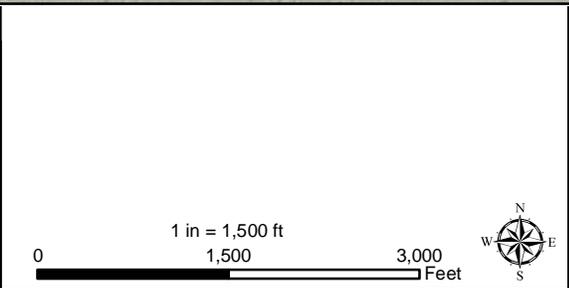
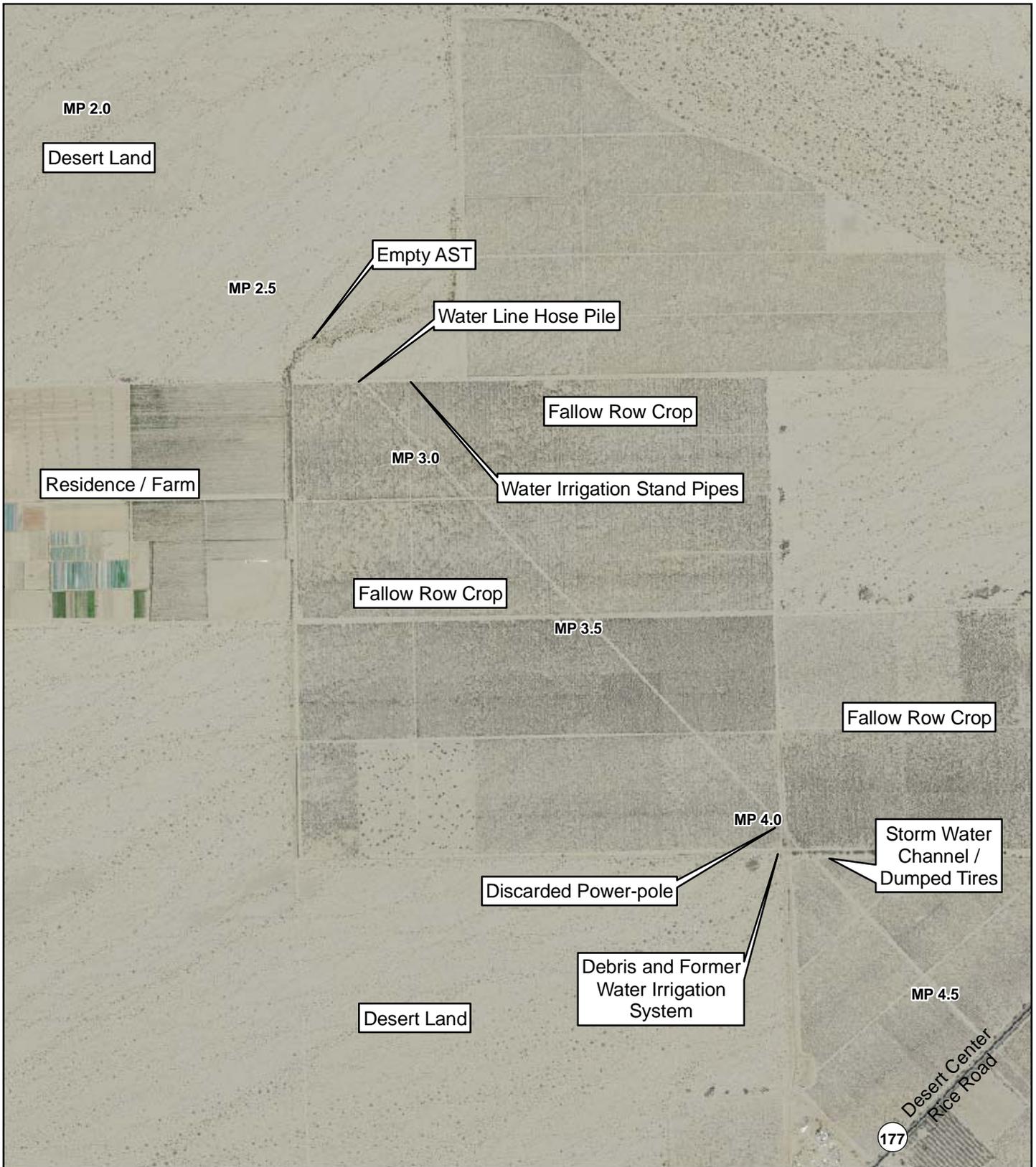

Project: 60149119-100  
Date: April 2010



**Desert Sunlight  
Solar Farm Project**

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

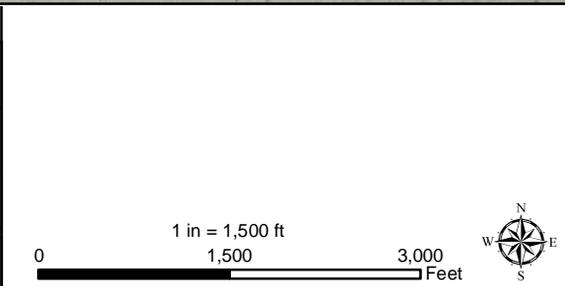
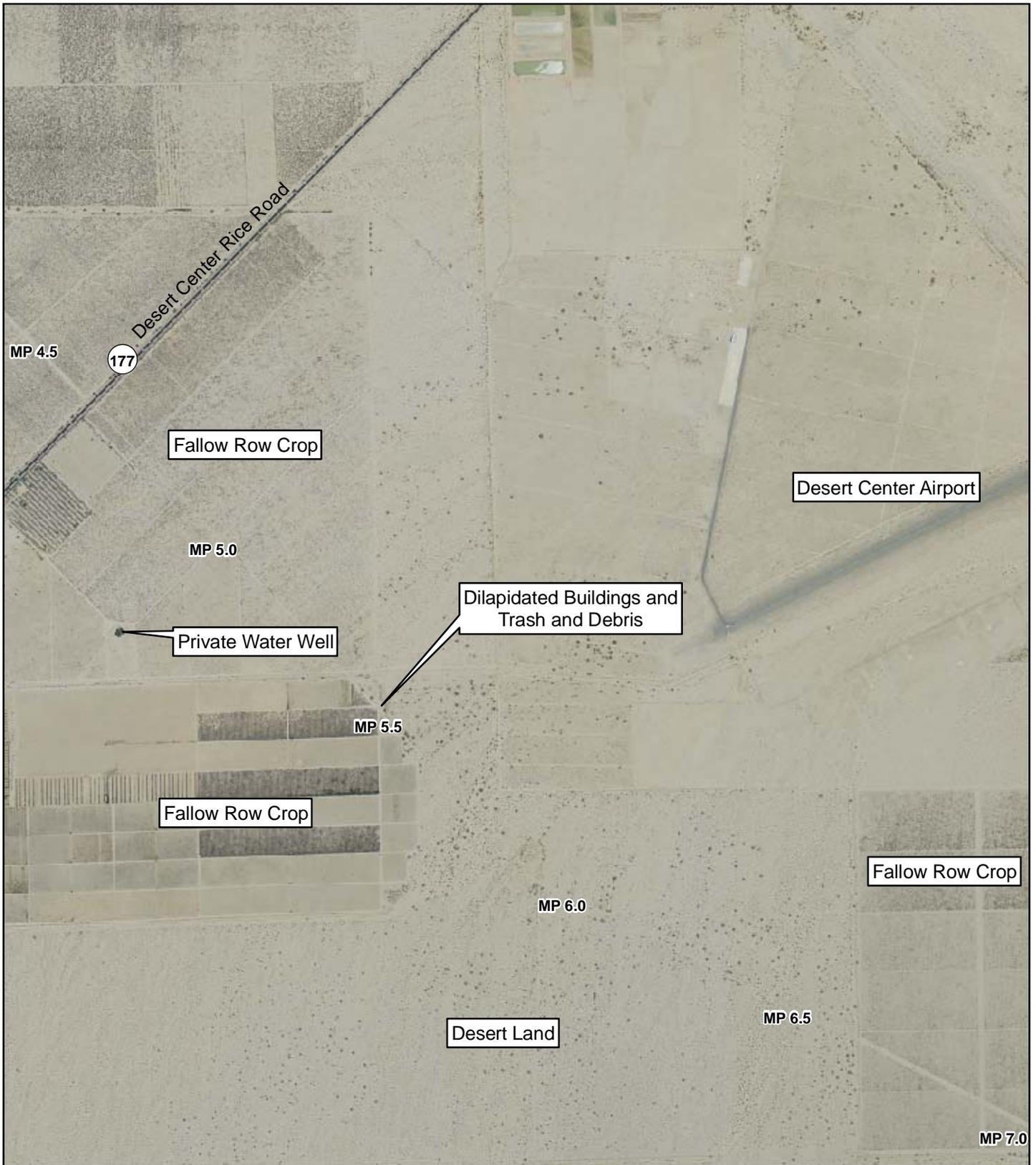
**Project: 60149119-100  
Date: April 2010**



**Desert Sunlight Solar Farm Project**

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

Project: 60149119-100  
Date: April 2010



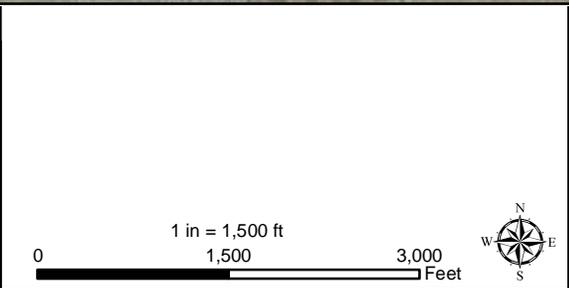
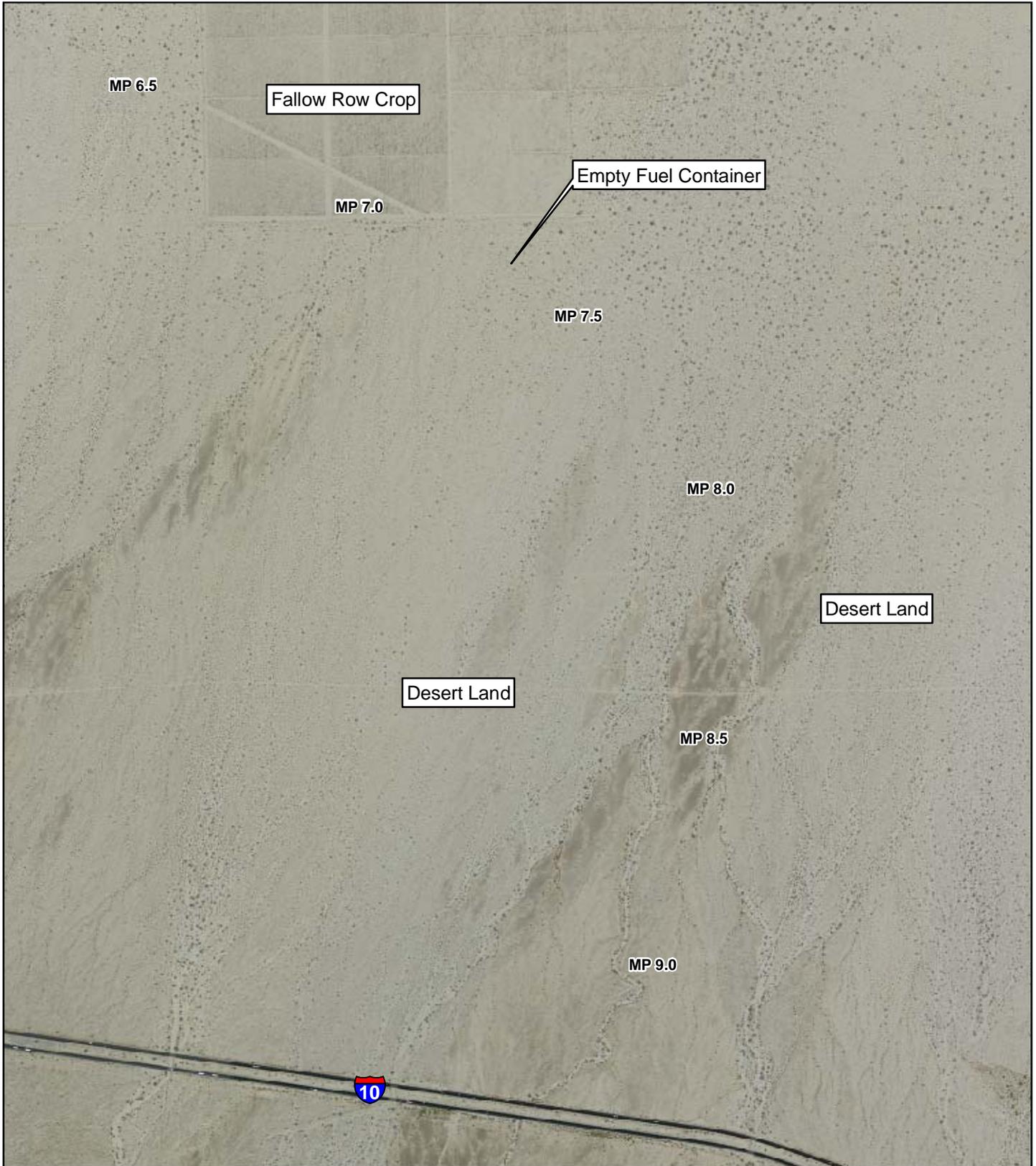
**Desert Sunlight  
Solar Farm Project**

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

**First Solar.**

**AECOM**

Project: 60149119-100  
Date: April 2010

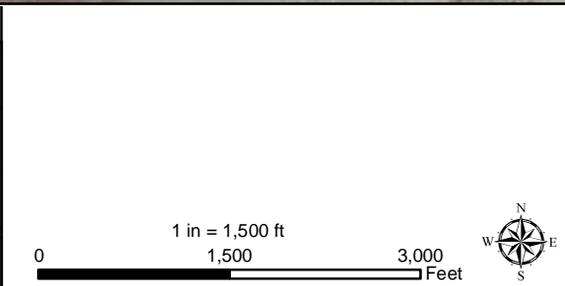
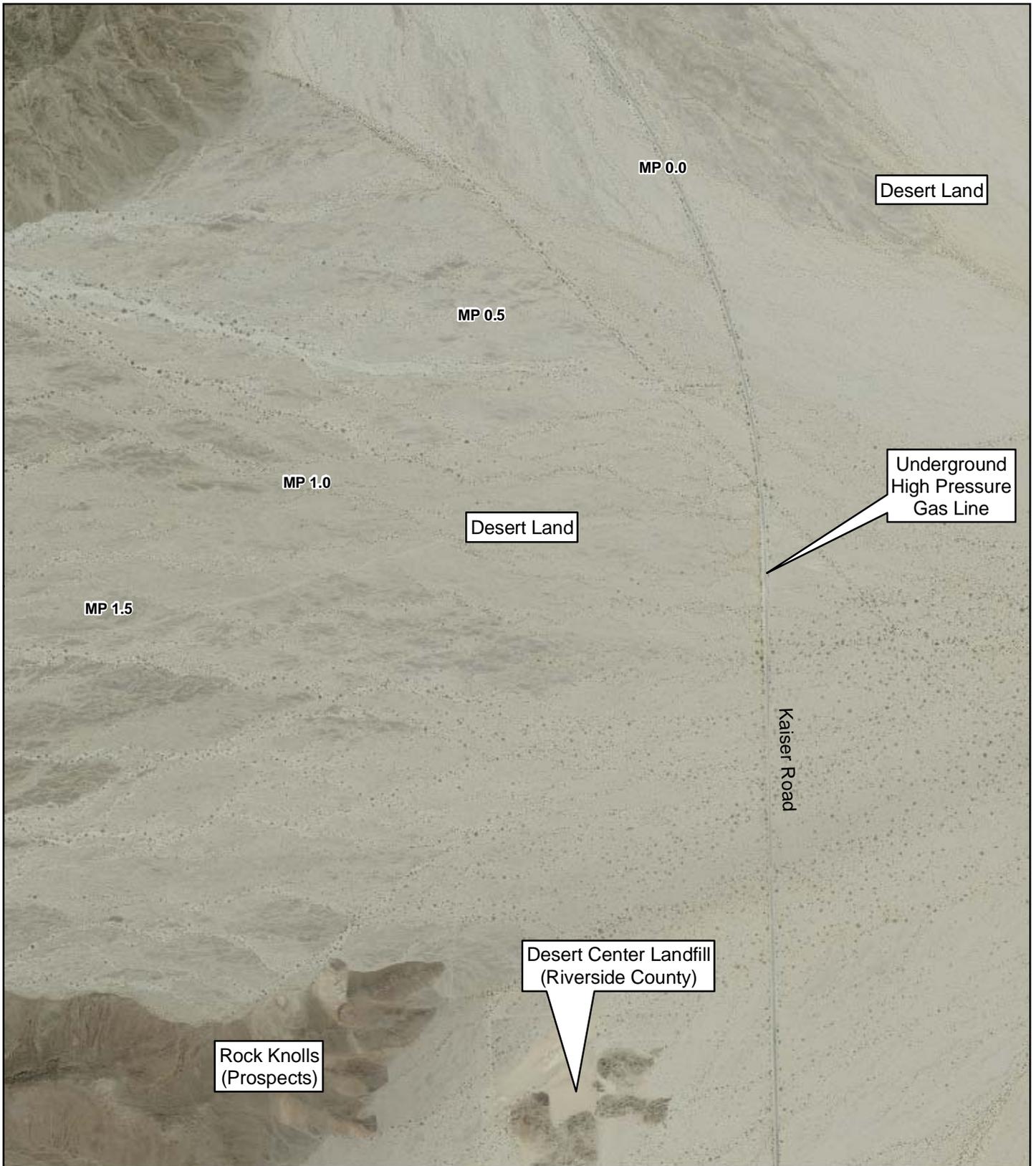


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

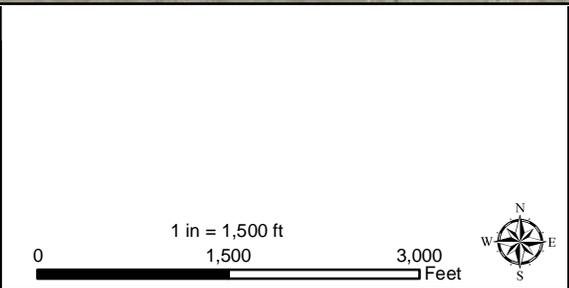
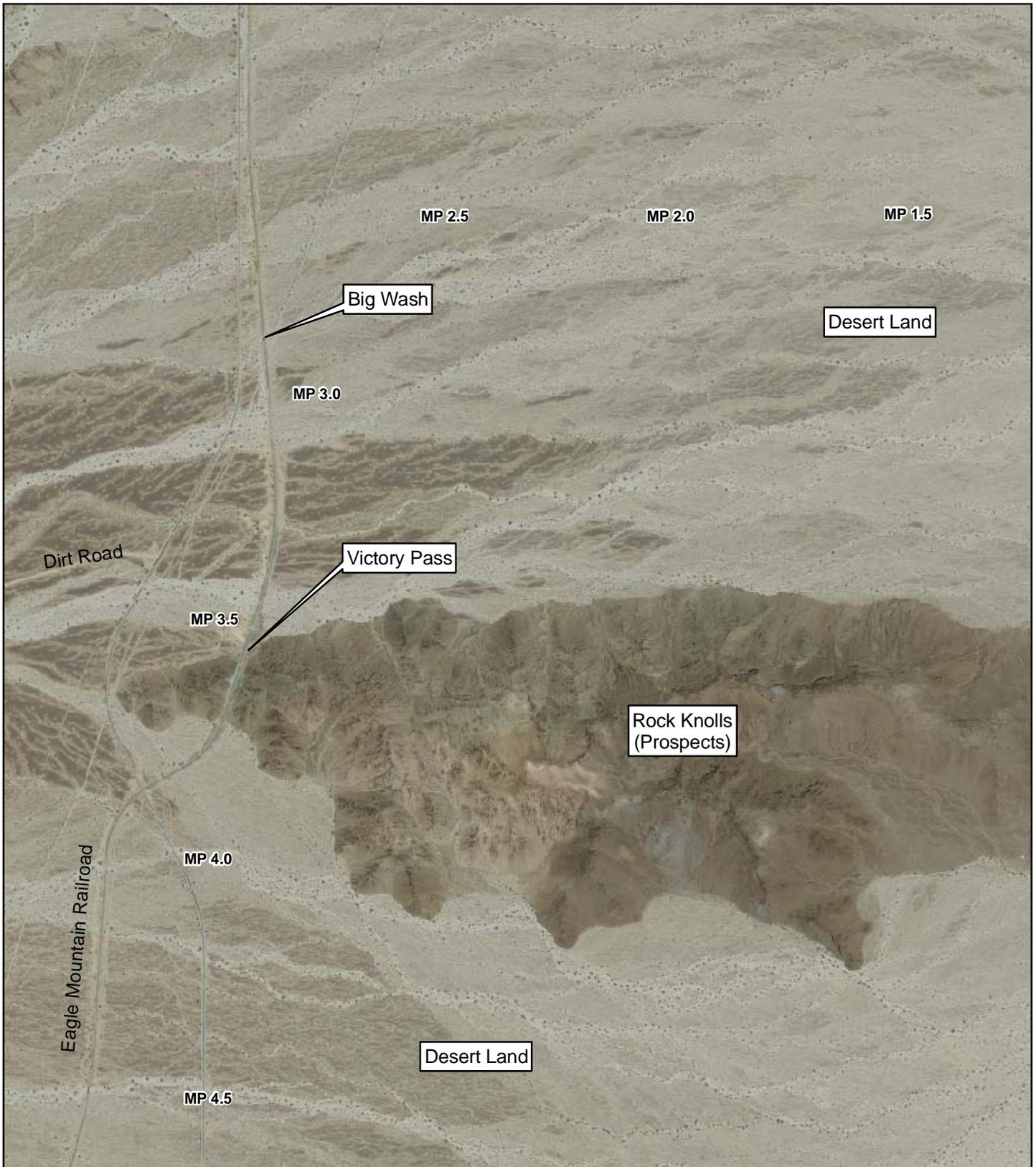


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

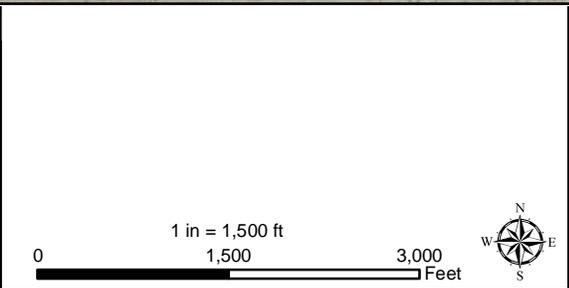
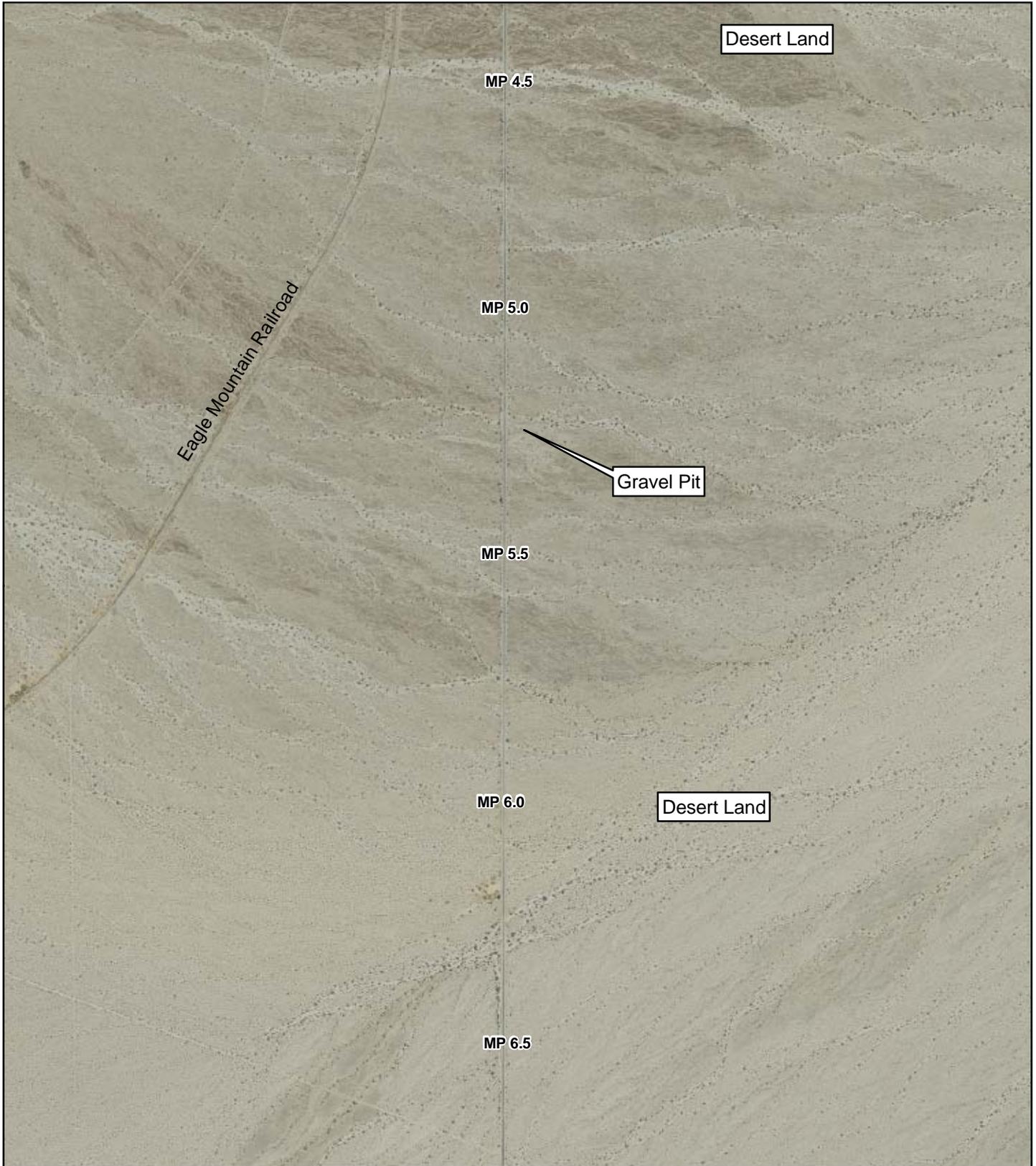


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

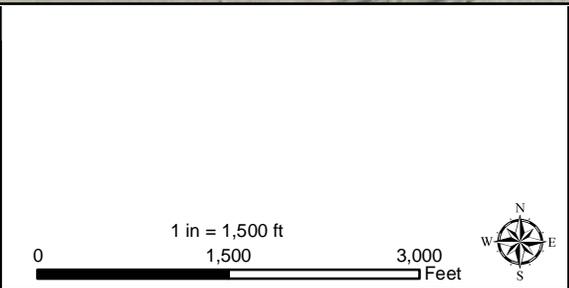
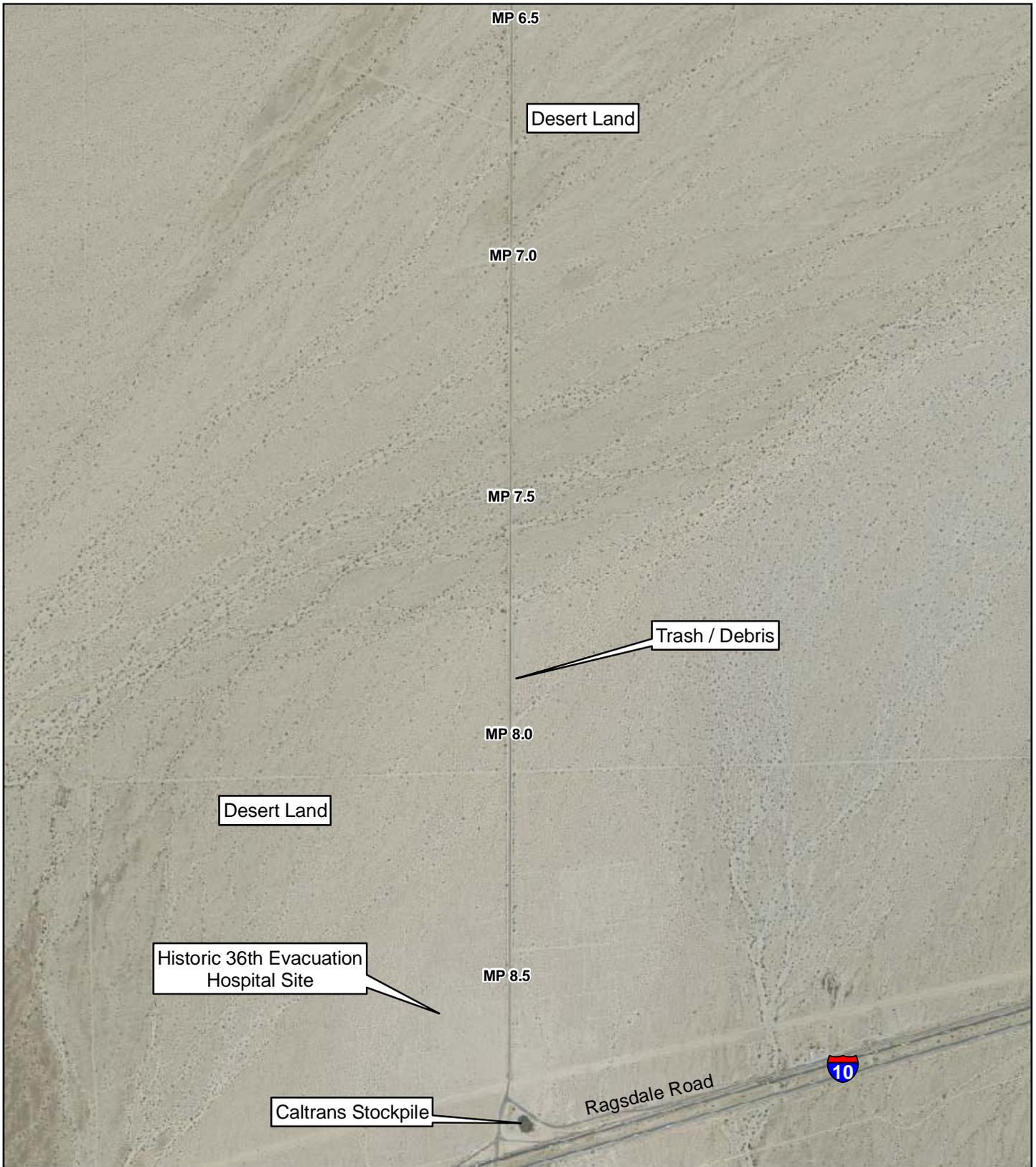


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

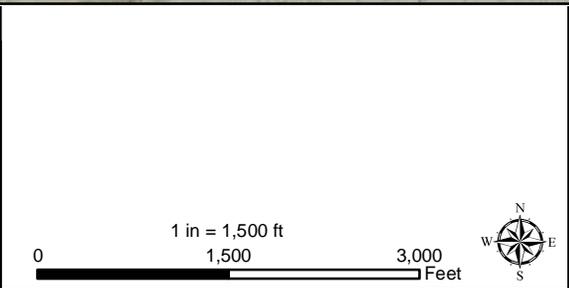
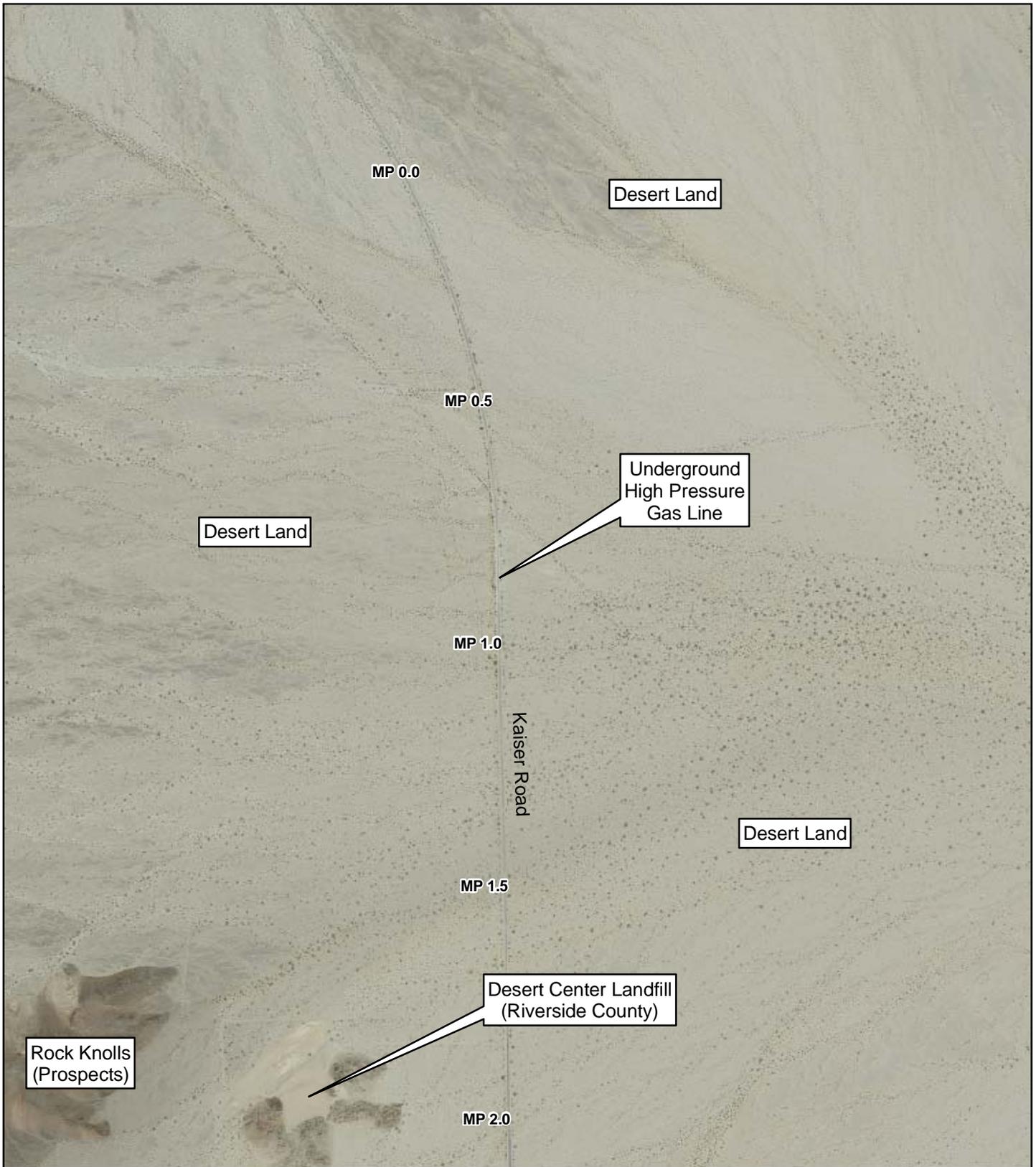


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

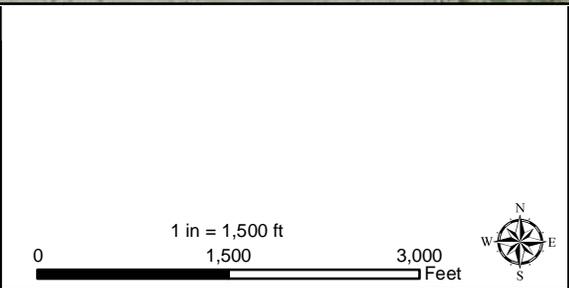
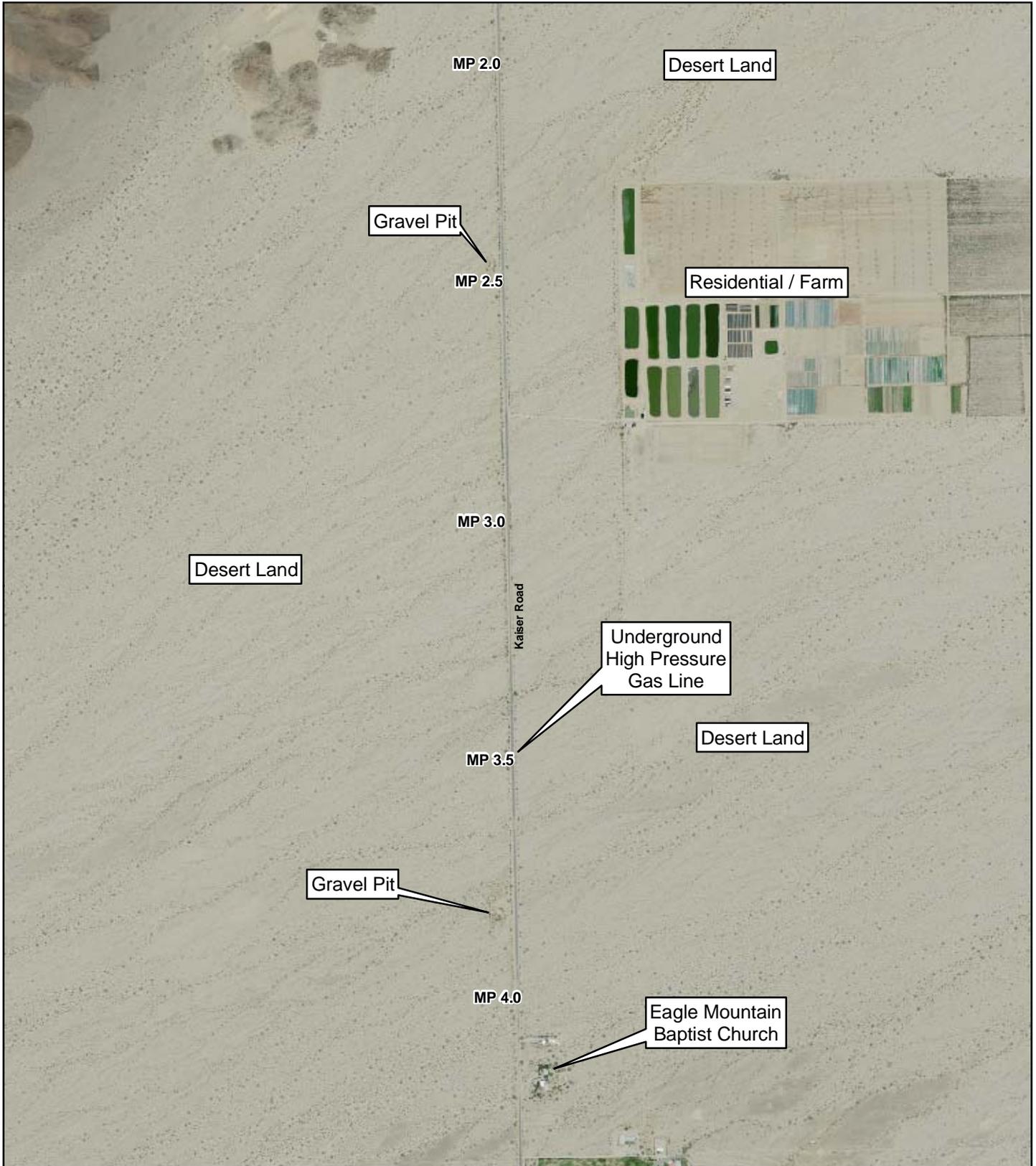


**Desert Sunlight  
Solar Farm Project**

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



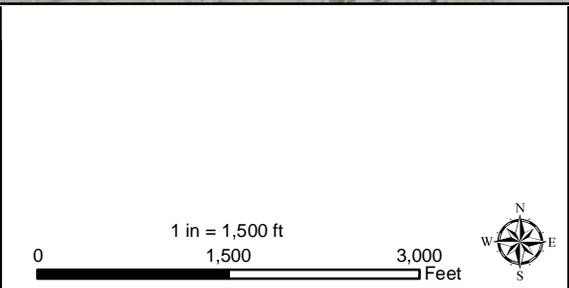

Project: 60149119-100  
Date: April 2010



**Desert Sunlight  
Solar Farm Project**

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

Project: 60149119-100  
Date: April 2010



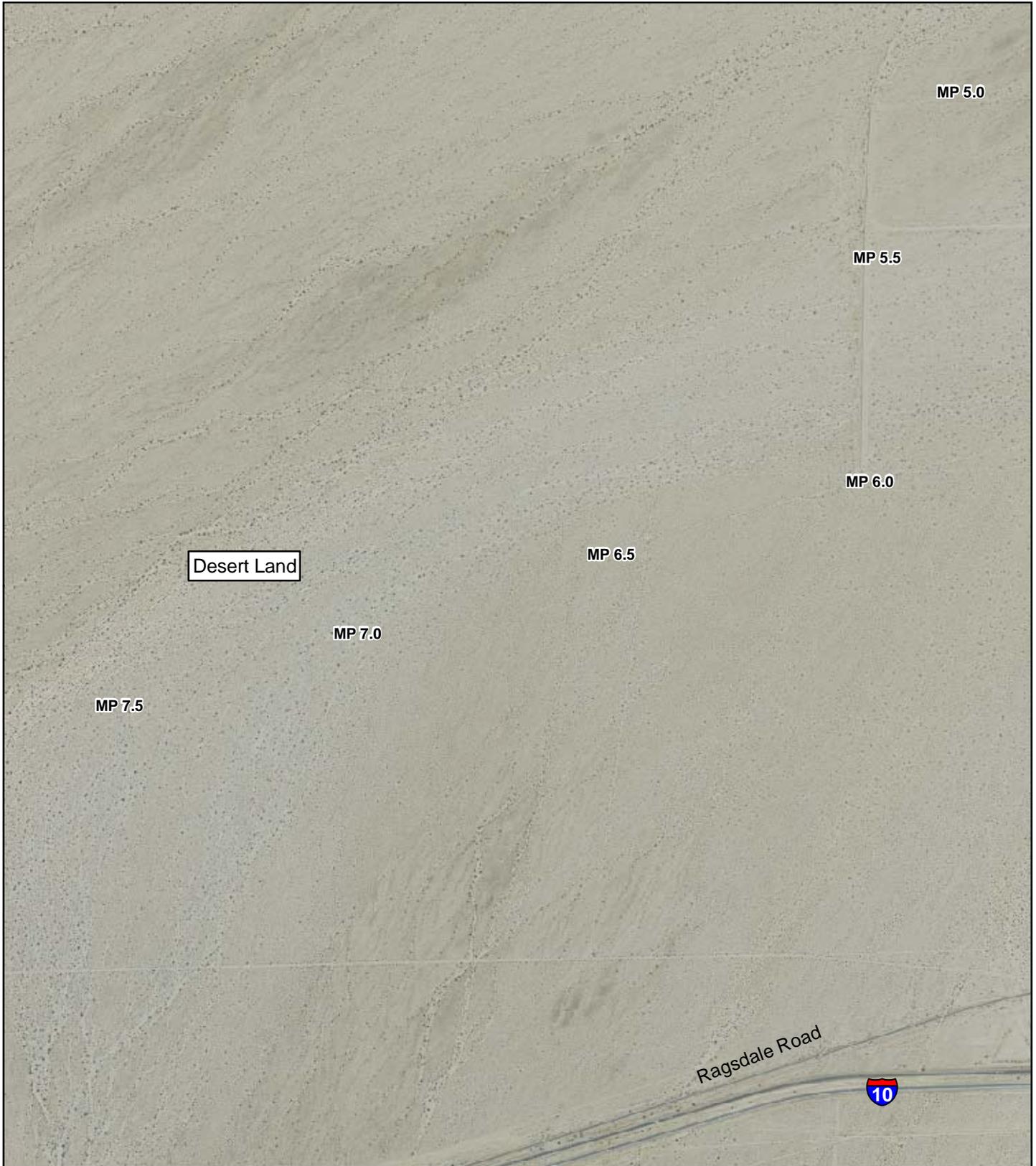
**Desert Sunlight  
Solar Farm Project**

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

**First Solar.**

**AECOM**

Project: 60149119-100  
Date: April 2010



Desert Land

MP 5.0

MP 5.5

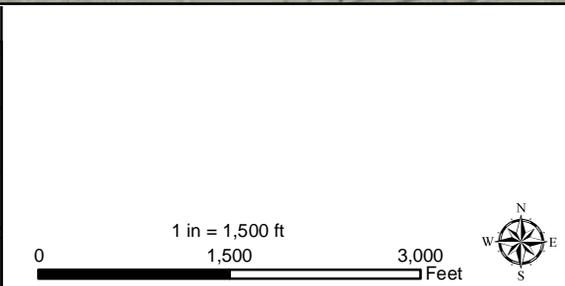
MP 6.0

MP 6.5

MP 7.0

MP 7.5

Ragsdale Road

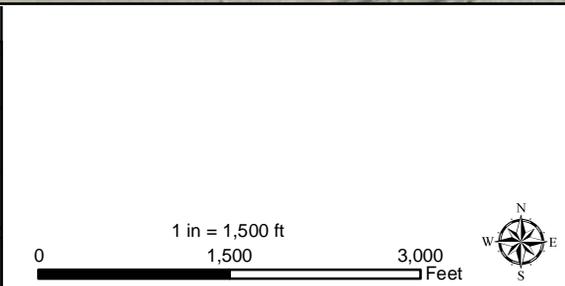
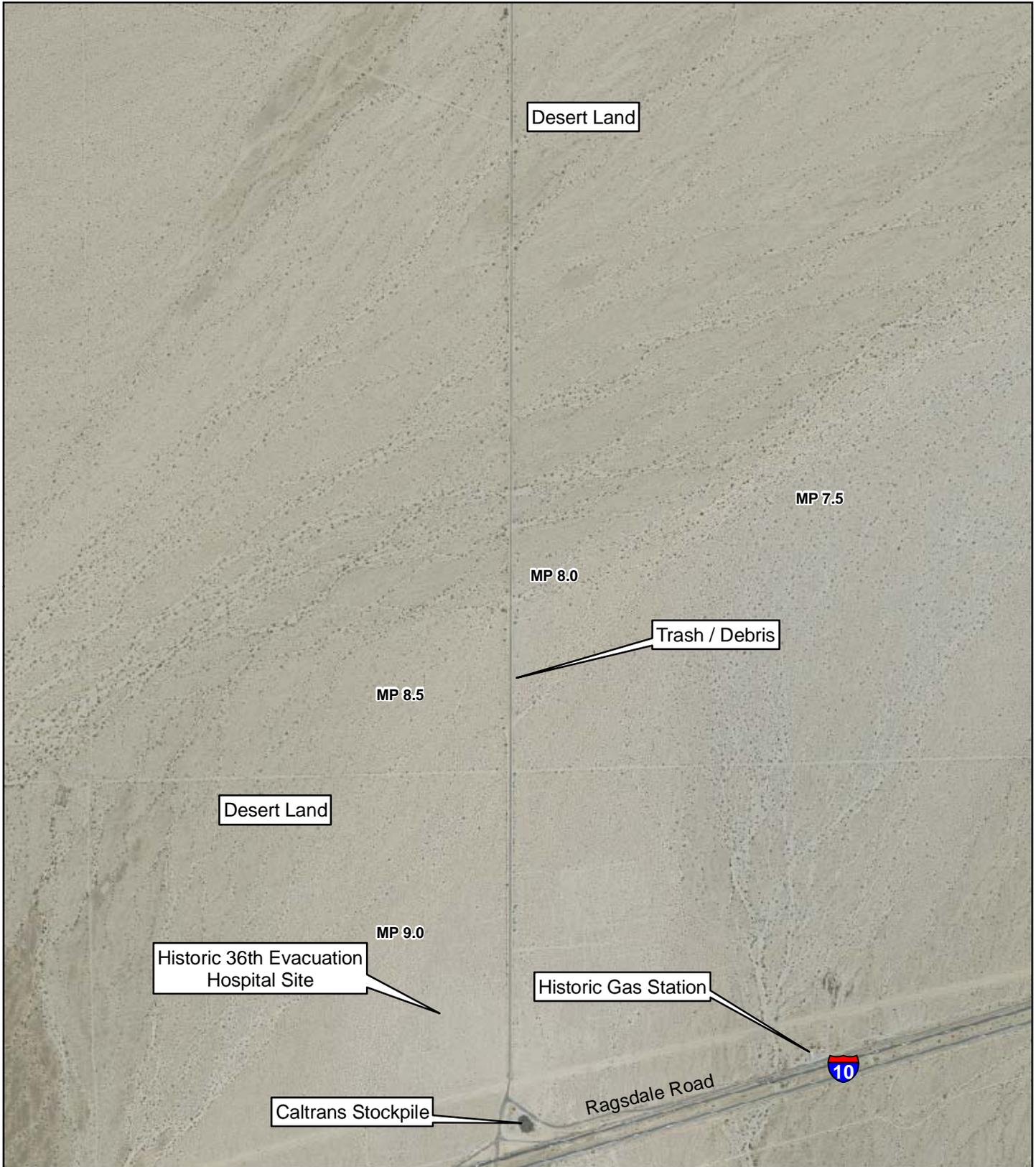


**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010



**Desert Sunlight  
Solar Farm Project**

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




Project: 60149119-100  
Date: April 2010

# **Appendix A**

## **Representative Site Photographs**

**PHOTOGRAPHIC LOG**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>1</b>	<b>Date:</b> 03/02/10
------------------------------	--------------------------

**Direction Photo Taken:**  
  
West

**Description:**  
  
View of the northern portion of the solar farm site from Powerline Road.



<b>Photo No.</b> <b>2</b>	<b>Date:</b> 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**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>3</b>	<b>Date:</b> 03/02/10
------------------------------	--------------------------

**Direction Photo Taken:**  
  
East

**Description:**  
  
View of one of two active water wells located approximately ¼-mile east of the solar farm site.



<b>Photo No.</b> <b>4</b>	<b>Date:</b> 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

<b>Client Name:</b> First Solar		<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
<b>Photo No.</b> <b>5</b>	<b>Date:</b> 03/02/10		
<b>Direction Photo Taken:</b>  North			
<b>Description:</b>  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).			
<b>Photo No.</b> <b>6</b>	<b>Date:</b> 03/02/10		
<b>Direction Photo Taken:</b>  West			
<b>Description:</b>  View of the gen-tie line - alternative A1 and area of and gen-tie line - alternative B2 from Kaiser Road.			

**PHOTOGRAPHIC LOG**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>7</b>	<b>Date:</b> 03/02/10
------------------------------	--------------------------

**Direction Photo Taken:**  
  
North

**Description:**  
  
View of the vacant Chavez Auto and Truck.



<b>Photo No.</b> <b>8</b>	<b>Date:</b> 03/02/10
------------------------------	--------------------------

**Direction Photo Taken:**  
  
North

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



**PHOTOGRAPHIC LOG**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>9</b>	<b>Date:</b> 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.



<b>Photo No.</b> <b>10</b>	<b>Date:</b> 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

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

**PHOTOGRAPHIC LOG**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
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<b>Photo No.</b> <b>13</b>	<b>Date:</b> 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.



<b>Photo No.</b> <b>14</b>	<b>Date:</b> 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**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>15</b>	<b>Date:</b> 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.



<b>Photo No.</b> <b>16</b>	<b>Date:</b> 03/02/10
-------------------------------	--------------------------

**Direction Photo Taken:**  
  
East

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



**PHOTOGRAPHIC LOG**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>17</b>	<b>Date:</b> 04/09/10
-------------------------------	--------------------------

**Direction Photo Taken:**  
  
Southeast

**Description:**  
  
View of the northern portion of gen-tie line - alternative A2.



<b>Photo No.</b> <b>18</b>	<b>Date:</b> 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**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>19</b>	<b>Date:</b> 04/09/10
-------------------------------	--------------------------

**Direction Photo Taken:**  
  
Southeast

**Description:**  
  
Representative view of gen-tie line - alternative A2 traversing through fallow row crop.



<b>Photo No.</b> <b>20</b>	<b>Date:</b> 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**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>21</b>	<b>Date:</b> 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.



<b>Photo No.</b> <b>22</b>	<b>Date:</b> 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**

<b>Client Name:</b> First Solar	<b>Site Location:</b> Proposed Desert Sunlight Solar Project	<b>Project Number:</b> 60149119-100
------------------------------------	---	--

<b>Photo No.</b> <b>23</b>	<b>Date:</b> 04/09/10
<b>Direction Photo Taken:</b>  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.

<b>Photo No.</b> <b>24</b>	<b>Date:</b> 04/09/10
<b>Direction Photo Taken:</b>  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*

***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*

<b>Sites:</b> 31	<b>Non-Geocoded:</b> 30	<b>Population:</b> NA
<b>Radon:</b> NA		

*Site Location*

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

*Comment*

<b>Comment:</b>
-----------------

*Additional Requests/Services*

<b>Adjacent ZIP Codes:</b> 0 Mile(s)	<b>Services:</b>																																		
<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.

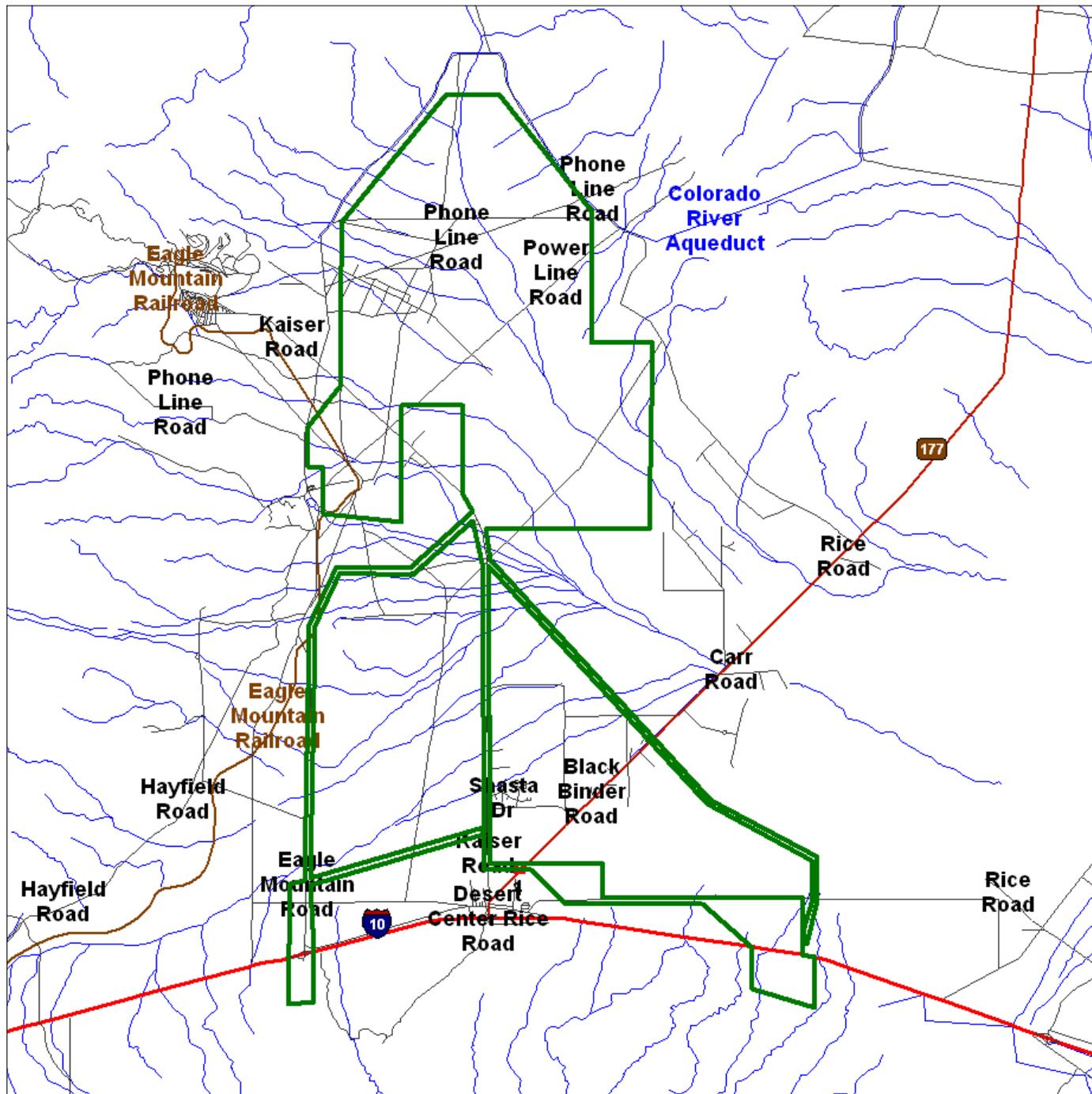


# Environmental FirstSearch

1 Mile Radius from Area  
Single Map:

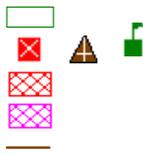


## DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

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



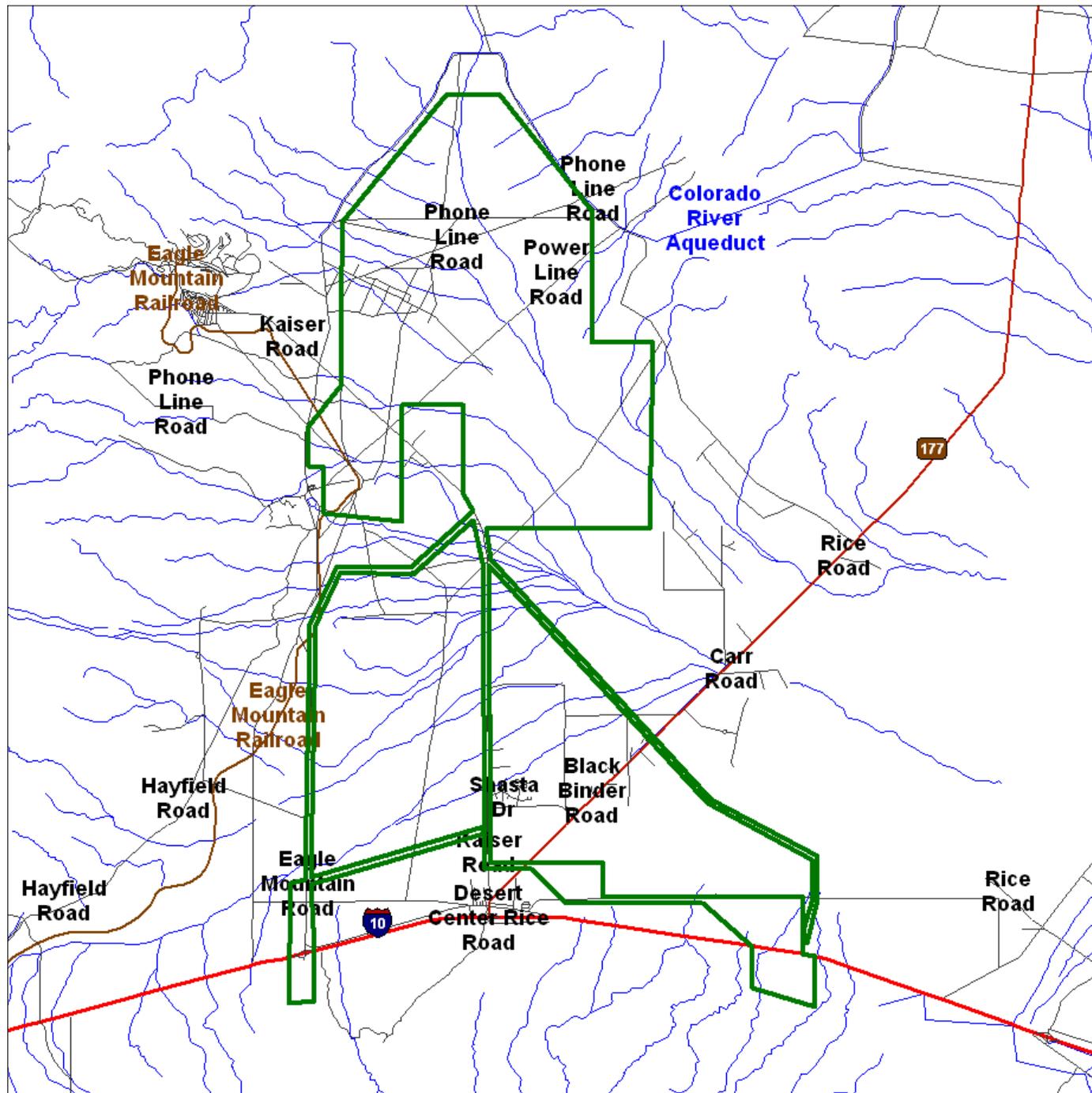


# Environmental FirstSearch

1 Mile Radius from Area  
ASTM-05: NPL, RCACOR, STATE

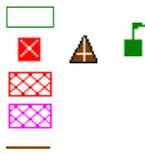


## DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

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



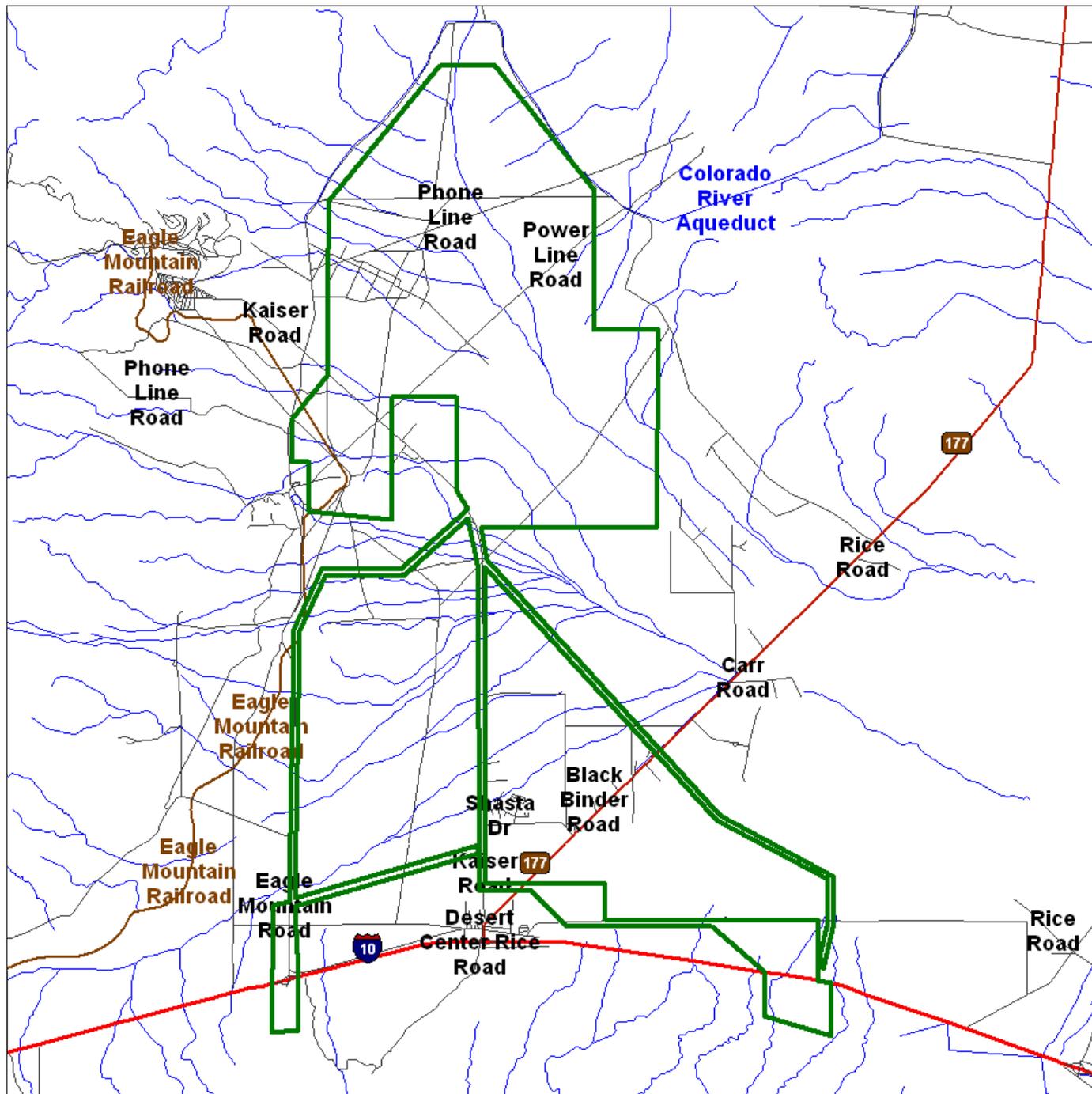


# Environmental FirstSearch

.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 .....



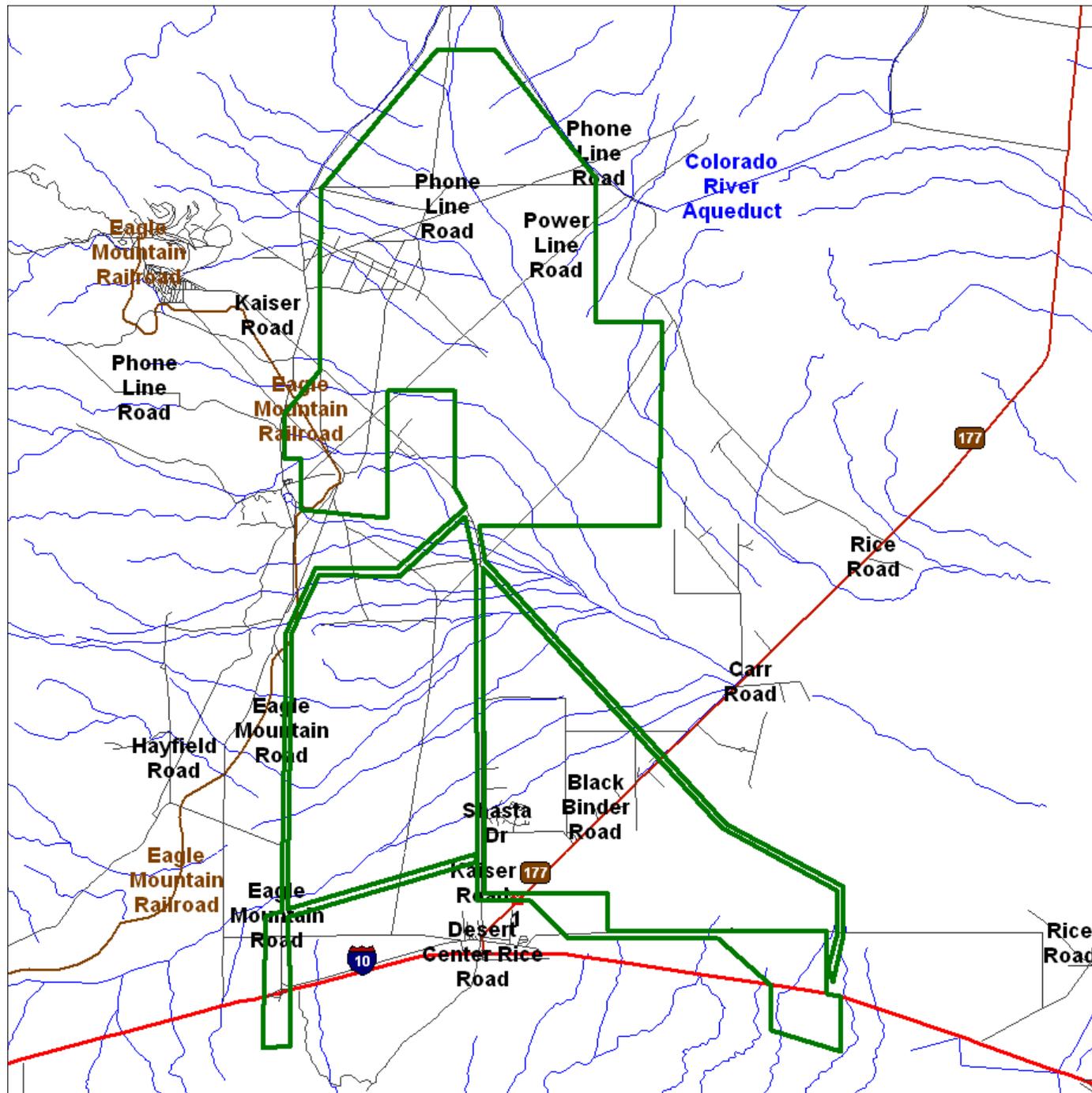


# Environmental FirstSearch

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

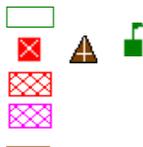


## DESERT SUNLIGHT 2 , DESERT CENTER CA 92239



Source: U.S. Census TIGER Files

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



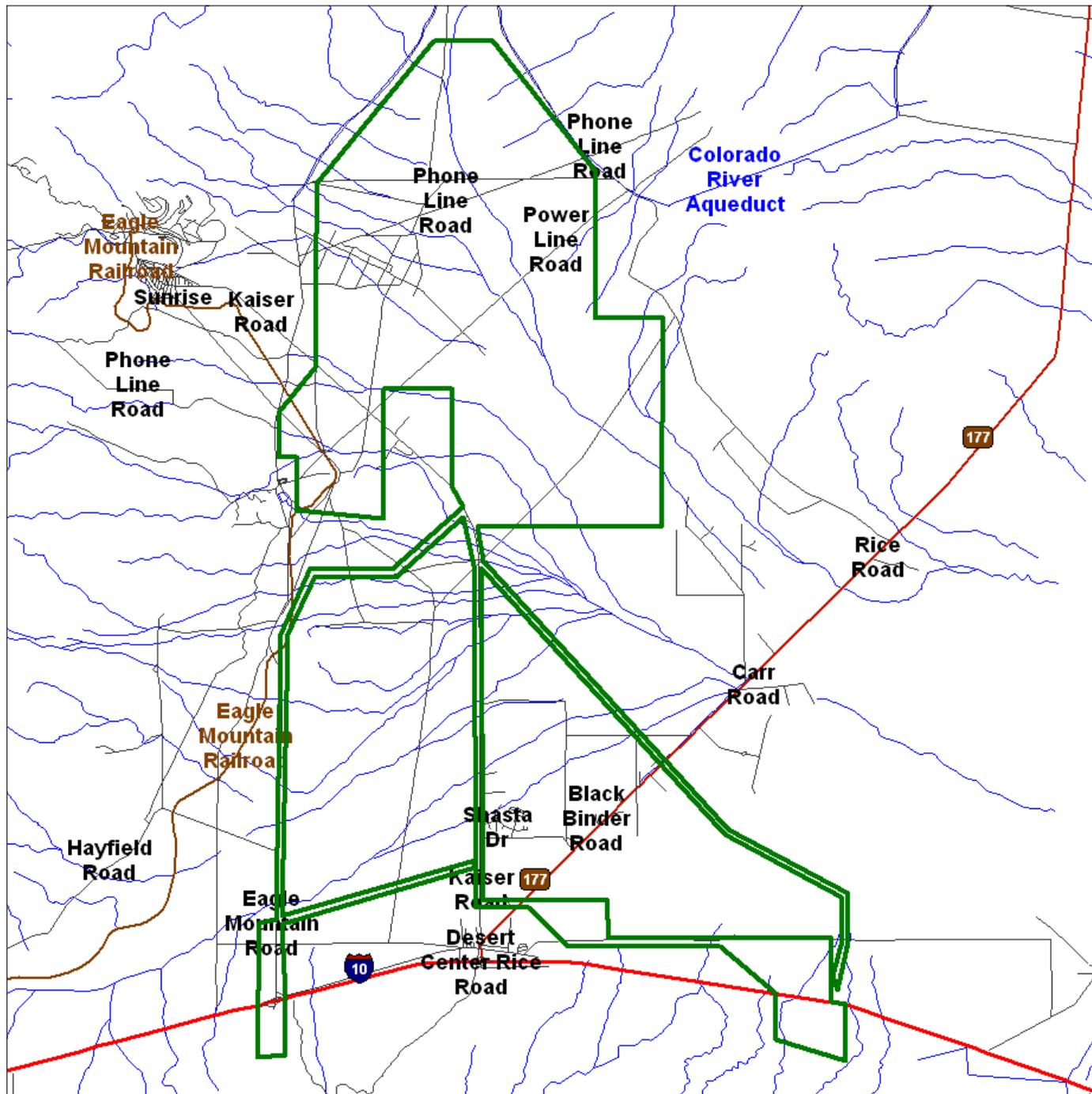


# Environmental FirstSearch

.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

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<b>Page No.</b>	<b>DB Type</b>	<b>Site Name/ID/Status</b>	<b>Address</b>	<b>Dist/Dir</b>	<b>Map ID</b>
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## 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 I3327/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 WMUD7A330305121/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

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  
**CONTACT:**

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

**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

ERNS

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<b>SEARCH ID:</b> 7	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> TIME/DC INC	<b>REV:</b> 01-04-01
<b>ADDRESS:</b> ED I-10/1/2 MI W OF DESERT CENTER DESERT CENTER CA RIVERSIDE	<b>ID1:</b> 13327
<b>CONTACT:</b>	<b>ID2:</b>
	<b>STATUS:</b> UNKNOWN
	<b>PHONE:</b>

---

**THERE ARE NO DETAILS AVAILABLE FOR THIS SITE**











***Environmental FirstSearch  
Site Detail Report***

**Target Property:** DESERT SUNLIGHT 2  
DESERT CENTER CA 92239

**JOB:** PDSSF2

SWL

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<b>SEARCH ID:</b> 12	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
----------------------	-------------------------	----------------

---

<b>NAME:</b> DESERT CENTER SANITARY 98-002	<b>REV:</b> 07/03/00
<b>ADDRESS:</b> 17-991 KAISER RD	<b>ID1:</b> WMUD7A330305121
DESERT CENTER CA 92239	<b>ID2:</b> 33-AA-0016
RIVERSIDE	<b>STATUS:</b> ACTIVE
<b>CONTACT:</b> HANS KERNKAMP	<b>PHONE:</b>

---

**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

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:** 21

**DIST/DIR:** NON GC

**MAP ID:**

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

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

**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

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<b>SEARCH ID:</b> 25	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
----------------------	-------------------------	----------------

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<b>NAME:</b> MWD/EAGLE MOUNTAIN PUMPING	<b>REV:</b> 06/14/2000
<b>ADDRESS:</b> EAGLE MOUNTAIN RD	<b>ID1:</b> RIVERSIDECO83406
DESERT CENTER CA 92239	<b>ID2:</b>
RIVERSIDE	<b>STATUS:</b>
<b>CONTACT:</b>	<b>PHONE:</b>

---

**RIVERSIDE COUNTY TANKS LIST INFORMATION**

**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: EPA/NRC 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)
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 (STATE).

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 (CAL SITES 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.

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6. Properties where a No Further Action Determination has been made (NFA)

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

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 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 Philips 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.