

## **Cultural Resources Records Review for Utilities and Access Roads for the El Sol Energy Storage Project in Youngtown, Arizona**

**Prepared for:** Invenergy LLC

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### **Summary:**

Proposed water lines and access roads for the El Sol Energy Storage project are located in the floodplain of the Agua Fria. Large, block surveys in the records review area have located no cultural sites in this part of the floodplain, while prehistoric sites are present on terraces above the floodplain/fan zone. Portions of the project location that have been previously surveyed and identified no cultural sites. The likelihood of cultural sites being present in the project area is low, and the likelihood of sensitive prehistoric sites being present is very low. No additional cultural work is recommended.

In the unlikely event that Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony are encountered during construction of the project, all work in the area must cease and the find must be reported to the Arizona State Museum in accordance with A.R.S. §41-865

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## TABLE OF CONTENTS

---

Project Description .....	1
Project Location .....	1
Environmental Setting.....	1
Cultural Setting .....	1
Archaic Period (6000 BC to AD 400) .....	1
Formative Period (AD 400 to 1450).....	2
Protohistoric Period (AD 1450 to 1691)/Ethnohistoric Overview .....	2
Historic Period (post-1850) .....	3
Records Review.....	4
Recommendations.....	9
References Cited.....	10

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## LIST OF FIGURES

---

Figure 1. Results of Records Review (north). .....	7
Figure 1. Results of Records Review (south). .....	9

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## LIST OF TABLES

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Table 1.    Projects in the Review Area.....	4
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## ABSTRACT

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<b>Project Title:</b>	El Sol Energy Storage
<b>Document Title:</b>	Cultural Resources Records Review for Utilities and Access Roads for the El Sol Energy Storage Project in Youngtown, Arizona
<b>Document Date:</b>	July 22, 2021
<b>Consultant Firm:</b>	Environmental Planning Group, a Terracon Company (EPG)
<b>Project Number:</b>	Terracon Project No. 65217355
<b>Agencies:</b>	City of Youngtown
<b>Project Sponsor:</b>	Invenergy
<b>Funding Source:</b>	Private
<b>Regulations:</b>	State Historic Preservation Act (Arizona Revised Statutes [ARS] 41-861 <i>et seq.</i> ); Arizona Antiquities Act (ARS 41-842)
<b>Project Description:</b>	Invenergy, LLC proposes to construct water lines and access roads in support of a battery storage facility using private funds. EPG conducted a cultural resources records review within a mile of the project to evaluate for the presence and potential of cultural resources sites.
<b>Location and Jurisdiction:</b>	The project is located on private land Northwest of West Olive Avenue and North 111th Avenue in Youngtown, Maricopa County, Arizona in Assessor's Parcel Number (APN) 142-70-007D. The project area is in Sections 19 and 24 of Township 3 North, Range 1 East, and Sections 24 and 25 of Township 3 North, Range 1 West, Gila and Salt River Base Line and Meridian, as depicted on the El Mirage, Arizona USGS 7.5 Minute Quadrangle.
<b>Locator UTM:</b>	378690 m E, 3715500 m N, Zone 12 S
<b>Recommendations</b>	<p>The project is located in the floodplain of the Agua Fria. Large, block surveys in the records review area have located no cultural sites in this part of the floodplain, while prehistoric sites are present on terraces above the floodplain/fan zone. Portions of the project location that have been previously surveyed and identified no cultural sites. The likelihood of cultural sites being present in the project area is low, and the likelihood of sensitive prehistoric sites being present is very low. No additional cultural work is recommended.</p> <p>In the unlikely event that Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony are encountered during construction of the project, all work in the area must cease and the find must be reported to the Arizona State Museum in accordance with A.R.S. §41-865</p>

## Phase I Environmental Site Assessment

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



## PROJECT DESCRIPTION

Invenergy, LLC proposes to construct water lines and access roads in support of a battery storage facility using private funds. Environmental Planning Group, a Terracon Company (EPG) conducted a cultural resources records review within a mile of the project to evaluate for the presence and potential of cultural resources sites.

### **Project Location**

The project is located on private land Northwest of West Olive Avenue and North 111th Avenue in Youngtown, Maricopa County, Arizona in Assessor's Parcel Number (APN) 142-70-007D. The project area is in Sections 19 and 24 of Township 3 North, Range 1 East, and Sections 24 and 25 of Township 3 North, Range 1 West, Gila and Salt River Base Line and Meridian, as depicted on the El Mirage, Arizona USGS 7.5 Minute Quadrangle.

### **Environmental Setting**

An understanding of the environmental setting of the project area provides an important physical context for how humans may have used or manipulated the local environment. The project area lies entirely on Holocene alluvial deposits at an elevation ranging from 1,084 to 1,096 feet above mean sea level. The project area is approximately 1,330 feet east of the channel of the Agua Fria. Immediately east of the project is a high terrace approximately 100 feet above the proposed water line and access road alignments. Project area soils consist primarily of Vint loamy fine sand which forms on floodplains, with a small proportion of Brios loamy sand, Calciorthids and Torriorthents, which forms on floodplains and alluvial fans (USDA and NRCS 2021). The approximately 1-mile long north-south alignment corresponds with an existing road.

## CULTURAL SETTING

An understanding of the cultural setting of the project area provides an important historical context for past human use of the area, and thus for the types of archaeological sites and features that may be present. The earliest known occupation of this part of central Arizona dates to the Archaic period. Occupations dating to the Pleistocene are known in northern and southern Arizona, but these early "Paleoindian" sites are extremely rare in central Arizona and are unlikely to be encountered in the Project area. Accordingly, discussion here will focus on the Archaic and Formative Periods.

### **Archaic Period (6000 BC to AD 400)**

Early in the Archaic Period, populations in the Sonoran Desert subsisted primarily on hunted game and gathered plant foods. These earlier Archaic sites are often located on areas of desert pavement above water sources. They are recognized by the presence of abundant stone tools debris, informal grinding stones, distinct spear points, pit ovens, and sometimes shallow, semi-subterranean houses. Between 1500 and 1000 BC, cultivated foods became increasingly important, especially with the newly introduced crop "maize" or corn. Late Archaic Period field and canal systems have been found deeply buried in large river floodplains, such as the Santa Cruz river near Tucson (Gregory 2001; Huckell et al. 1999; Mabry 2008; Thiel and Mabry 2006).

## Phase I Environmental Site Assessment

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



Excavations at the Las Capas site in the western Tucson Basin revealed an Early Agricultural component, with canals dating from 1250 to 500 BC. The canals suggest an increasing reliance on irrigation-based agriculture along the Santa Cruz River (Mabry 2008). However, agricultural sites dating to this period have not been documented in the Phoenix Basin. Closer to the project area, Archaic sites are not common, but several have been found and excavated at Luke Air Force Base, 11.75 miles south and west of the project area. These were more typical of the earlier Archaic Period sites (Wegener and Hall 2017).

### **Formative Period (AD 400 to 1450)**

The Formative Period is a time of development of ceramic and agricultural technologies. Hohokam have been the subject of relatively intensive study in the Phoenix Basin (Crown 1987; Crown and Judge 1991; Doyel 1991; Gladwin et al. 1938; Haury 1976; Wilcox and Sternberg 1983). Almost two decades ago, researchers began to examine Hohokam data as it might relate to a far-flung regional system (Crown and Judge 1991; Wilcox 1979, 1980). The Hohokam core area was viewed as the Phoenix Basin, surrounded by a number of peripheral areas. Secondary areas were located to the north and east of the center near the Agua Fria River, the Verde River, and the Tonto Basin. Peripheries south and east of the Phoenix Basin include the Safford, San Pedro, and Tucson basins and the Upper Santa Cruz area. To the south and west, tangential areas include the Gila Bend area and the eastern and western subdivisions of the Papaguería.

Within the Phoenix Basin, the Hohokam were concentrated in villages located along irrigation canals. Abbott (2000) postulated that the social interaction between the Hohokam was shaped primarily by the irrigation community, based on the ceramic data obtained during the Pueblo Grande Study.

Formative period sites are recognized by a suite of sites and features including canals, pithouses, ball courts, platform mounds, human burials, and painted ceramic artifacts. Formative period sites are known to be in the area, including canals and large village sites that are known to contain human burials.

### **Protohistoric Period (AD 1450 to 1691)/Ethnohistoric Overview**

Even though the first contact between the Piman-speaking peoples of the region and Europeans occurred in 1539–1540 with the passing of the de Niza and subsequent Coronado expeditions, little is known of the period from AD 1450 to AD 1691. The region remained relatively free of European contact for another full century and a half (Farish 1915; Kessell 2002). By the time Jesuit priest Eusebio Francisco Kino first traveled to the Phoenix Basin, the Hohokam cultural tradition had disappeared (Doelle 1984). Referring to all the indigenous inhabitants as Pimas, the Spanish identified several groups speaking different dialects living in rancherías throughout the region; this included the Pima situated on the middle Gila River and Salt River Valley (Wells 2006). The Spanish did not maintain a presence north of the Tucson Basin, and little can be said regarding this inadequately understood period. Protohistoric sites would be recognized by distinct ceramic types or the occasional presence of European trade items. Given their relative rarity, no sites dating to this Period are anticipated in the Project area.

### **Historic Period (post-1850)**

American settlement in the Phoenix Basin began shortly after the conclusion of the Mexican-American War (1846 to 1848). Despite previous positive relationships, the new settlers insisted on appropriating Maricopa and Akimel O'odham lands on the Gila River for agricultural enterprises. The United States government authorized the establishment of the Gila River Indian Community (GRIC) in 1859, where both groups were resettled (Pritzker 2000). In 1871, river flows diverted by Mormon farmers settling on the Gila River in the Florence and Safford areas upstream resulted in a number of Akimel O'odham and Maricopa moving north to the Salt River (DeJong 1992).

Most early settlement remained confined to the Gila River and points south in the 1850s; however, gold discoveries in the Bradshaw Mountains soon drew settlers into the central part of the newly acquired territory. The 1865 establishment of Fort McDowell near the confluence of the Salt and Verde rivers facilitated settlement in the Salt River Valley, which had remained for the most part unoccupied. The first to arrive in large numbers were Mormon settlers who recognized the agricultural potential of the region, as evidenced by the ubiquity of the remnant Hohokam irrigation system; however, it was Jack Swilling, a former Confederate officer and Union scout, who recognized the business opportunities in cleaning out and restoring the prehistoric canals (Luckingham 1989; Trimble 1989).

In 1867, Swilling organized the Swilling Irrigation Canal Company and began the first of several ditch restorations on the north side of the Salt River near present-day 40<sup>th</sup> Street in Phoenix. Swilling's Ditch, extending approximately 1.5 miles following a northwesterly arc away from the river, attracted a number of settlers to the valley. In 1868, the population consisted of approximately 50 settlers; however, by 1870, the population had grown to 225 individuals (Trimble 1989). That year, a committee was organized to select a townsite, which was named Phoenix at the suggestion of Darrell Duppa, who upon noting the evidence of earlier Hohokam settlement in the area claimed that "a new city would spring Phoenix-like upon the ruins of a former civilization" (Barnes 1988).

Throughout the late nineteenth century, the territorial capitol moved back and forth between Prescott and Tucson until the legislature finally settled on Phoenix as the permanent seat of government in 1899 (Trimble 1989). In the twentieth century, the region remained an important agricultural center as farmlands expanded throughout the Salt and Gila river valleys. Following World War II, the manufacturing sector expanded in the region, and a significant portion of the rural population migrated to Phoenix, contributing to a loss of its small-town character (Nash 1987).

The majority of the immediate area around the project area remained largely native desert, hosting ranching and water control activities. The area remained relatively undeveloped until the 1950s when the Youngtown Development Company developed a large retirement community, incorporated as Youngtown, Arizona in 1960. This was the United States' first planned community dedicated exclusively to retirees, soon copied by Del Webb to build the much larger Sun City retirement community.

## Phase I Environmental Site Assessment

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



### RECORDS REVIEW

A cultural review was undertaken in July 2021 to identify cultural resource projects and previously recorded cultural resource sites within 1 mile of the project area. (Figures 1 and 2) Records from the following sources were examined:

- Arizona State Museum (ASM)/AZSITE
- Arizona State and National Register of Historic Places
- General Land Office (GLO) survey plats
- U.S. Geological Survey (USGS) Historical Topographic Maps
- Historic Aerial Photographs

#### **Arizona State Museum (ASM)/AZSITE**

A review of AZSITE records identified a total of 20 prior cultural resource projects within one mile of the project that were conducted between 1985 and 2018. Two of the previous projects were surveys that intersect the project (Table 1). One intersecting survey was conducted by Power Environmental Services, Inc. in 2003. The second survey was conducted by Maricopa County Department of Transportation in 2011. These surveys identified no cultural resource sites in the project area.

Report Number	Project Name	Source
2003-246.ASM	Southwest Fibernet Project Fiber Optic ROW, Electric Lightwave	AZSITE Database
2011-312.ASM	Olive Ave ITS	AZSITE Database

Two cultural resource sites have been identified within a mile of the project, designated AZ T:7:176(ASM) and AZ T:7:33(ASM). No sites have been identified in the project area itself.

AZ T:7:176(ASM) is a prehistoric site located approximately 4,520 feet northwest of the project. The site is a small concentration of approximately 60 ceramic and lithic materials on a small swale on a low terrace above the Agua Fria, which is located a quarter mile east of the site. The few decorated ceramics present (Gila Butte and Sacaton Red-on-buff) indicate the site is likely 900 or more years old. No prehistoric features or indications of human remains were noted, although the site card on file notes that historic farming had occurred at the site location.

AZ T:7:33(ASM) is a prehistoric site located approximately 3,700 feet southeast of the project. The site is an extensive scatter of ceramic and lithic materials on a high terrace overlooking the floodplain. Only non-diagnostic ceramics were noted, predominantly phyllite-tempered plainware

**Phase I Environmental Site Assessment**

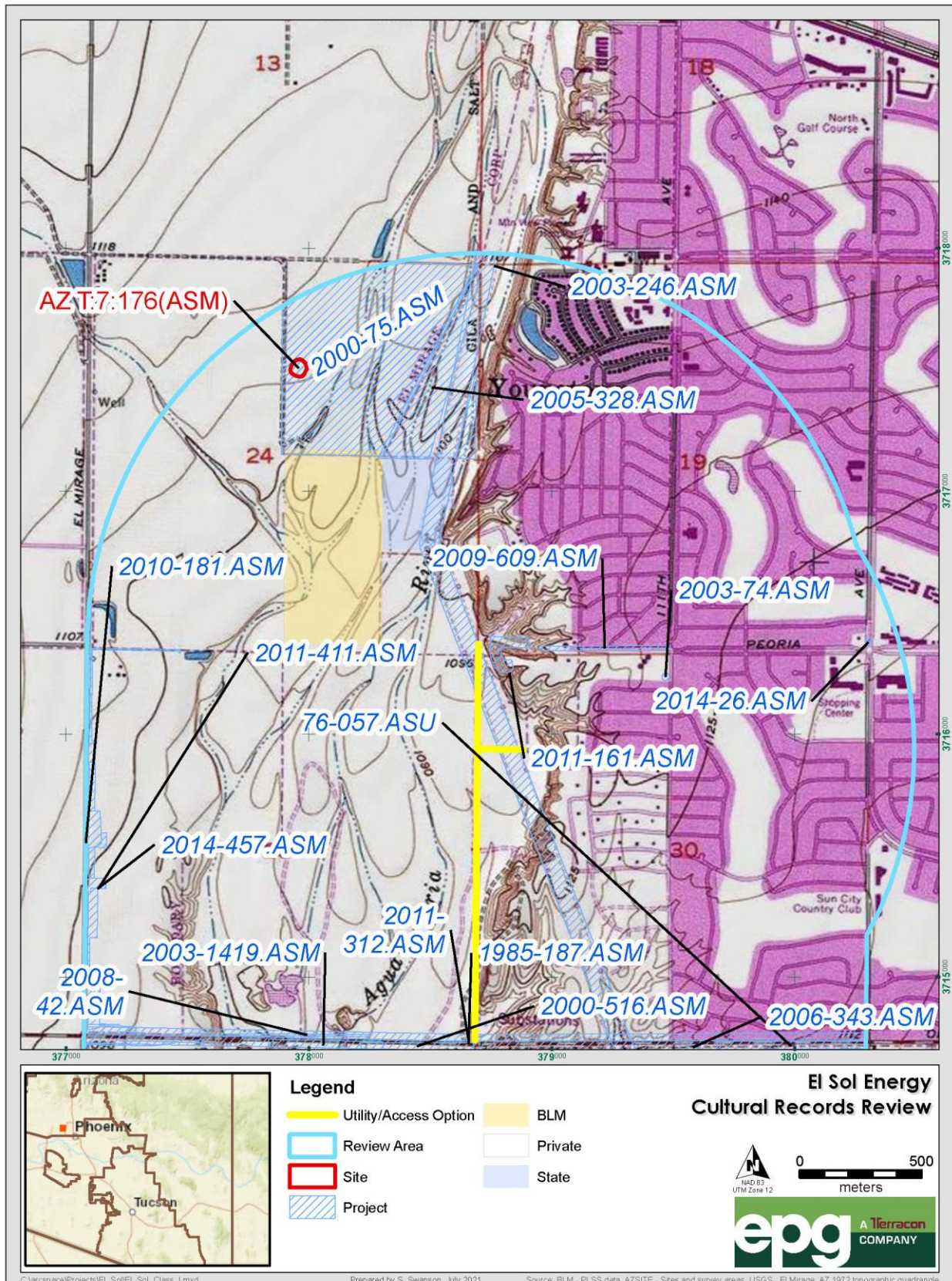
El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



vessel sherds, with lower amounts of redware vessel sherds, with an indeterminate age. No prehistoric features or indications of human remains were noted.





**Phase I Environmental Site Assessment**

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355

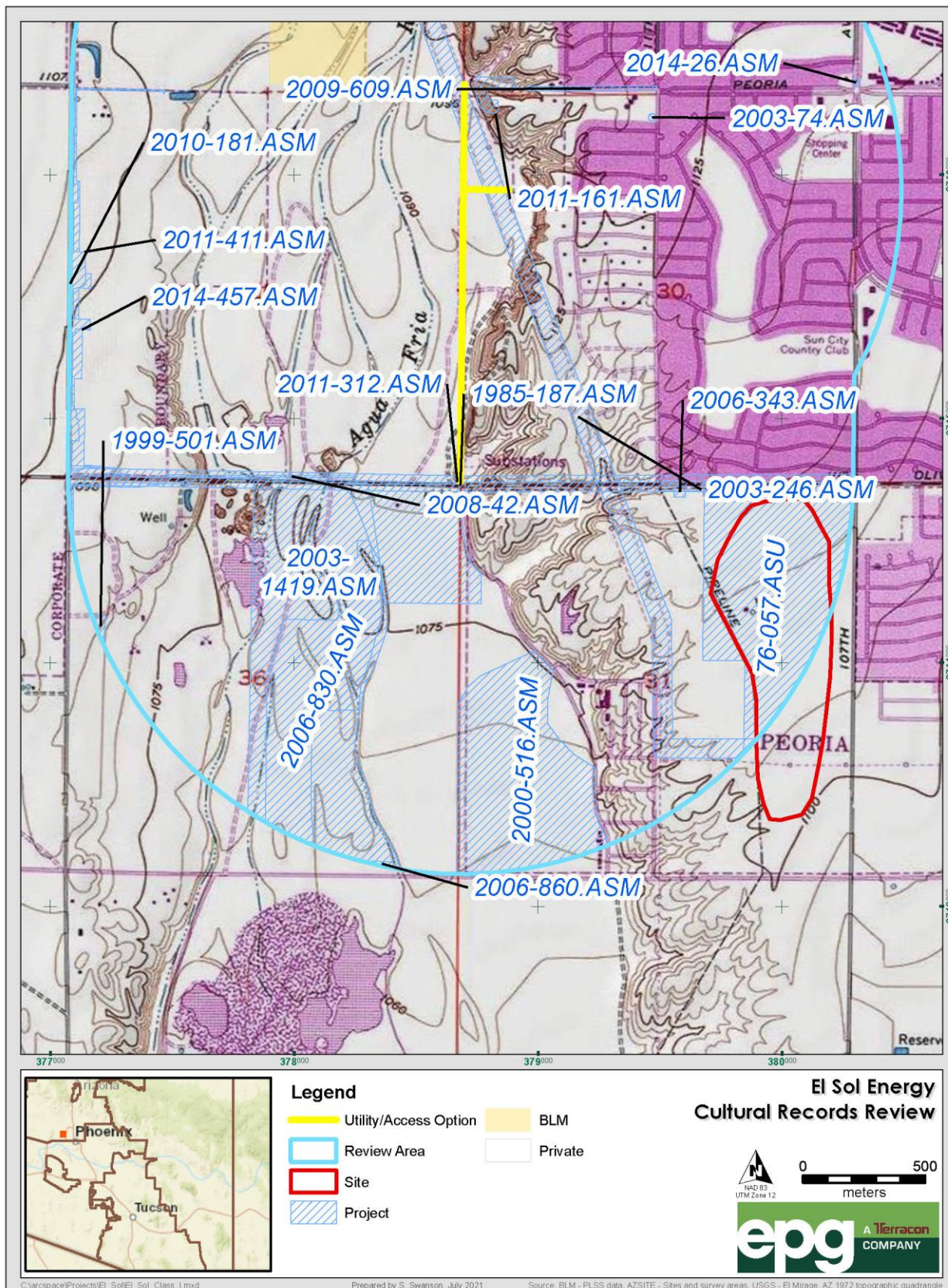


**Figure 1. Results of Records Review (north).**

**Phase I Environmental Site Assessment**

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



**Figure 2. Results of Records Review (south).**

**Arizona State and National Register of Historic Places**

There are no historic properties listed on the Arizona Register of Historic Places or NRHP within 1 mile of the project area.

**General Land Office (GLO) Survey Plats**

EPG consulted the GLO plats of Township 3 North, Range 1 East from 1868 (Figure 1) within the review area. An unnamed road is running southeast to northwest along the map, just north of the review area. A water feature labeled Dry Creek runs north to south on the eastern edge of the review area. There are no other features depicted within the project area.

**U.S. Geological Survey Historical Topographic Maps**

EPG consulted historic USGS topographic quadrangle maps of Phoenix (1971 edition). The map plots several features within 1 mile for the review area, including a "Disposal Plant" a mile south of the project and Youngtown to the north. No features are plotted within the project area on the 1971 map.

**Historic Aerial Photographs**

The 1971 historic aerial photograph (Figure 2) shows several housing developments within 1 mile of the review area. The housing developments are in the northern portion of the review area. The Agua Fria River is depicted along the western edge of the boundary of the review area. There are structures southwest to the review area, which depicts Luke Air Force Base. No features are present in the project area itself.

**RECOMMENDATIONS**

The project is located in the floodplain of the Agua Fria. Large, block surveys in the records review area have located no cultural sites in this part of the floodplain, while prehistoric sites are present on terraces above the floodplain/fan zone. Portions of the project location that have been previously surveyed and identified no cultural sites. The likelihood of cultural sites being present in the project area is low, and the likelihood of sensitive prehistoric sites being present is very low. No additional cultural work is recommended.

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## Phase I Environmental Site Assessment

El Sol Energy Storage Access Road ■ Youngtown, AZ  
Terracon Project No. 65217355



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**Phase I Environmental Site Assessment**

El Sol Energy Storage Access Road ■ Youngtown, AZ

Terracon Project No. 65217355



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