

Cultural Resources Technical Report

# Stateline Road

Greenlee County

FEMA-1586-DR-AZ, PW #171

*January 2007*



**FEMA**

**U.S. Department of Homeland Security**  
1111 Broadway, Suite 1200  
Oakland, California 94607

## **Confidential: Not for Public Distribution**

*This document was prepared by*



Nationwide Infrastructure Support Technical Assistance Consultants  
*A Joint Venture of URS Group, Inc., and Dewberry & Davis LLC*

7720 N. 16th Street, Suite 100  
Phoenix, Arizona 85020

Task Order 78

Contract No. HSFEHQ-04-D-0127, HSFEHQ-04-J-0078

15703078.00100

**CULTURAL RESOURCE SURVEY FOR THE PROPOSED REPAIR OF  
STATELINE ROAD, GREENLEE COUNTY, ARIZONA**

Project Worksheet 171

prepared for

**Federal Emergency Management Agency**  
Region IX  
1111 Broadway, Suite 1200  
Oakland, CA 94607

prepared by

Kate A. Compton-Gore  
A.E. (Gene) Rogge  
Eric S. Cox  
**Nationwide Infrastructure Support Technical Assistance Consultants**  
(A joint venture of URS Group Inc. and Dewberry and Davis LLC)  
7720 N. 16<sup>th</sup> Street, Suite 100  
Phoenix, Arizona 85020

URS Cultural Resource Report 2006-49(AZ)

**Restrict Distribution**

To avoid vandalism, restrict information in this report about the location of archaeological sites, as provided for by Section 304 of the National Historic Preservation Act, Section 9(a) of the Archaeological Resources Protection Act, and Section 39-125 of the Arizona Revised Statutes.

**January 2007**

**TABLE OF CONTENTS**

---

Abstract .....	ii
Introduction .....	1
Project Location and Description.....	1
Area of Potential Effects .....	4
Environmental Setting .....	4
Cultural History.....	4
Records Review .....	8
General Land Office Plats.....	8
Survey Methods and Results.....	10
Conclusion and Recommendations.....	11
References Cited .....	12

**LIST OF FIGURES**

---

1 General Project Location .....	2
2 Stateline Road Study Area.....	3
3 General Land Office Plats.....	9

**LIST OF PHOTOGRAPHS**

---

1 Proposed Realignment of Stateline Road.....	10
2 Eroded South Bank of Gila River where Stateline Road was Washed Out.....	10
3 Well between the Original Stateline Road and Proposed Realignment.....	11

## ABSTRACT

---

- Agencies:** Federal Emergency Management Agency (FEMA)
- Report Title and Date:** *Cultural Resource Survey for the Proposed Repair of Stateline Road, Greenlee County, Arizona.* October 2006
- Project Numbers:** Disaster Declaration FEMA-1586-DR-AZ  
URS Project No. 15703078.00100
- Permit:** Arizona State Museum Blanket Permit 2006-040bl
- Project Description:** Greenlee County has applied, through the Arizona Division of Emergency Management (ADEM) to FEMA for funding to repair a segment of Stateline Road, which was damaged in February 2005 by flooding of the Gila River in southeastern Arizona. The proposed repairs would involve grading and graveling a realignment of Stateline Road around the area that was washed out, and replacing bank protection along the adjacent southern bank of the Gila River to provide protection from future floods.
- FEMA proposes to provide funds through the Public Assistance Program pursuant to Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93-288, as amended, and its implementing regulations [Title 44, Code of Federal Regulations, Part 206]. FEMA retained the Nationwide Infrastructure Support Technical Assistance Consultants to conduct a cultural resource study for the proposed project. This report documents the results of that study, which is intended to support compliance with the National Environmental Policy Act, and Section 106 of the National Historic Preservation Act, as implemented by a Programmatic Agreement between FEMA, the State Historic Preservation Officer, ADEM, and the Advisory Council on Historic Preservation for the Rodeo-Chediski Wildfire (designated FEMA-1422-DR-AZ) and then extended to the Severe Storms and Flooding Disaster (designated FEMA-1586-DR-AZ) on 27 April 2005.
- Location:** The damaged segment of Stateline Road is in the SE1/4 SE1/4 of Section 34, Township 8 South, Range 32 East and the NE1/4 NE1/4 of Section 3, Township 9 South, Range 32 East, Gila and Salt River Baseline and Meridian. The area is depicted on the Duncan U.S. Geological Survey 7.5-minute quadrangle.
- Acreage and Jurisdiction:** The area of potential effects for construction impacts was defined as those areas that could be disturbed by construction activities related to the proposed repair of the damaged road and replacement of bank protection. Because the project would result in only minor changes to the landscape and essentially restore the areas to pre-flood conditions, there is little potential for indirect effects beyond the construction zones due to visual intrusions or noise, but potential impacts were considered within 1,000 feet of the construction zones. About 3 acres of privately owned land were intensively surveyed. The area of

the proposed bank stabilization was almost entirely within the scoured channel of the Gila River, and was only spot-checked. A windshield reconnaissance was conducted to identify any historic-age buildings or structures within the area of potential effects for indirect effects.

**Personnel and  
Dates of Fieldwork:**

Archaeologist Eric S. Cox conducted the fieldwork on 23 February 2006, devoting one person-day to the effort. Dr. A.E. (Gene) Rogge served as principal investigator.

**National Register-  
Eligible Properties:**

None

**National Register-  
Ineligible Properties:**

Isolated irrigation well

**Conclusion and  
Recommendations:**

Pursuant to Stipulation VII.C of the Programmatic Agreement regarding FEMA-1586-DR-AZ, we recommend a determination of no historic properties affected. No further consideration of cultural resources is recommended unless archaeological resources or human remains were to be unexpectedly found during project implementation. In the unlikely event that previously unidentified cultural resources were found during construction activities, FEMA would require Greenlee County to stop work at that location and take reasonable steps to avoid or minimize harm to the property and notify FEMA through ADEM. FEMA would notify the State Historic Preservation Office at the earliest possible time and consult with them to develop actions to take into account the effects of the project on the discovered resources, pursuant to the Programmatic Agreement Stipulation X regarding unexpected discoveries.

If any discovery were to include human burials and associated objects, FEMA requires that Greenlee County would stop work at that location, take reasonable steps to avoid or minimize harm, and notify the Arizona State Museum in accordance with the Arizona Burial Law (Arizona Revised Statutes 41-865). Pursuant to that law, the Arizona State Museum director would determine appropriate treatment in consultation with interested parties.

## **CULTURAL RESOURCE SURVEY FOR THE PROPOSED REPAIR OF STATELINE ROAD, GREENLEE COUNTY, ARIZONA**

---

### **INTRODUCTION**

Greenlee County has applied through the Arizona Division of Emergency Management (ADEM) to the Federal Emergency Management Agency (FEMA) for funding to repair a segment of Stateline Road, which was damaged in February 2005 by flooding of the Gila River in southeastern Arizona. The flood was designated Presidential-declared disaster FEMA-1586-DR-AZ. FEMA proposes to provide funds through the Public Assistance Program pursuant to Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93-288, as amended, and its implementing regulations [Title 44, Code of Federal Regulations, Part 206].

FEMA retained the Nationwide Infrastructure Support Technical Assistance Consultants to conduct a cultural resource study for the project and determine whether the project could affect any properties listed in or eligible for the National Register of Historic Places (National Register). This report documents the results of that study, which is intended to support compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, as implemented by a Programmatic Agreement between FEMA, the State Historic Preservation Officer, ADEM, and the Advisory Council on Historic Preservation for the Rodeo-Chediski Wildfire (designated FEMA-1422-DR-AZ) and then extended to the Severe Storms and Flooding Disaster (designated FEMA-1586-DR-AZ) on 27 April 2005.

The study involved a records and literature review and field survey. Archaeologist Eric S. Cox conducted the fieldwork on 23 February 2006, devoting one person-day to the effort. The area surveyed is privately owned land and no survey permit was required. Dr. A.E. (Gene) Rogge served as principal investigator.

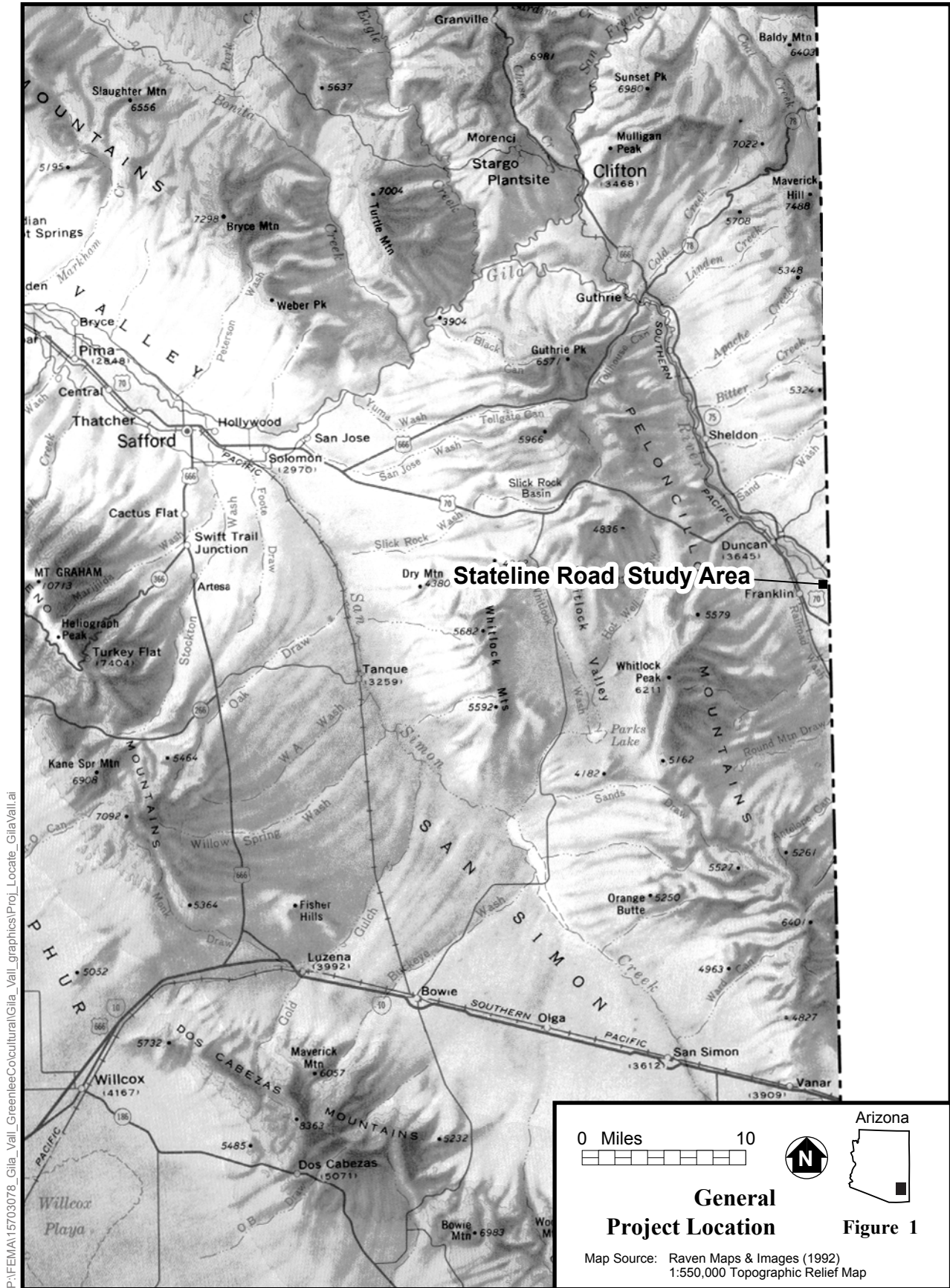
### **PROJECT LOCATION AND DESCRIPTION**

The damaged segment of Stateline Road is in unincorporated Greenlee County adjacent to the border with New Mexico, approximately 2 miles east of Franklin (Figure 1). Greenlee County maintains this gravel road, which is about 20 feet wide, for the benefit of the local irrigation district, local utility company, local property owners, and the general public. From Franklin Road, Stateline Road heads north just inside the eastern Arizona border, and turns to the west at the south bank of the Gila River. At that turn, about 500 feet of the riverbank had been reinforced by placing decommissioned flat-bed railroad cars on end behind a barrier made of railroad rails driven into the riverbed.

The February 2005 flood washed away the bank protection and eroded approximately 8 million cubic feet of sediment (500 feet wide, 800 feet long, and 20 feet deep) along the south bank of the Gila River and the adjacent segment of Stateline Road. Approximately 1,300 feet of Stateline Road was damaged. Damage to the bank protection has rendered land on the south bank of the Gila River, including the remaining segments of Stateline Road, more susceptible to erosion from future floods.

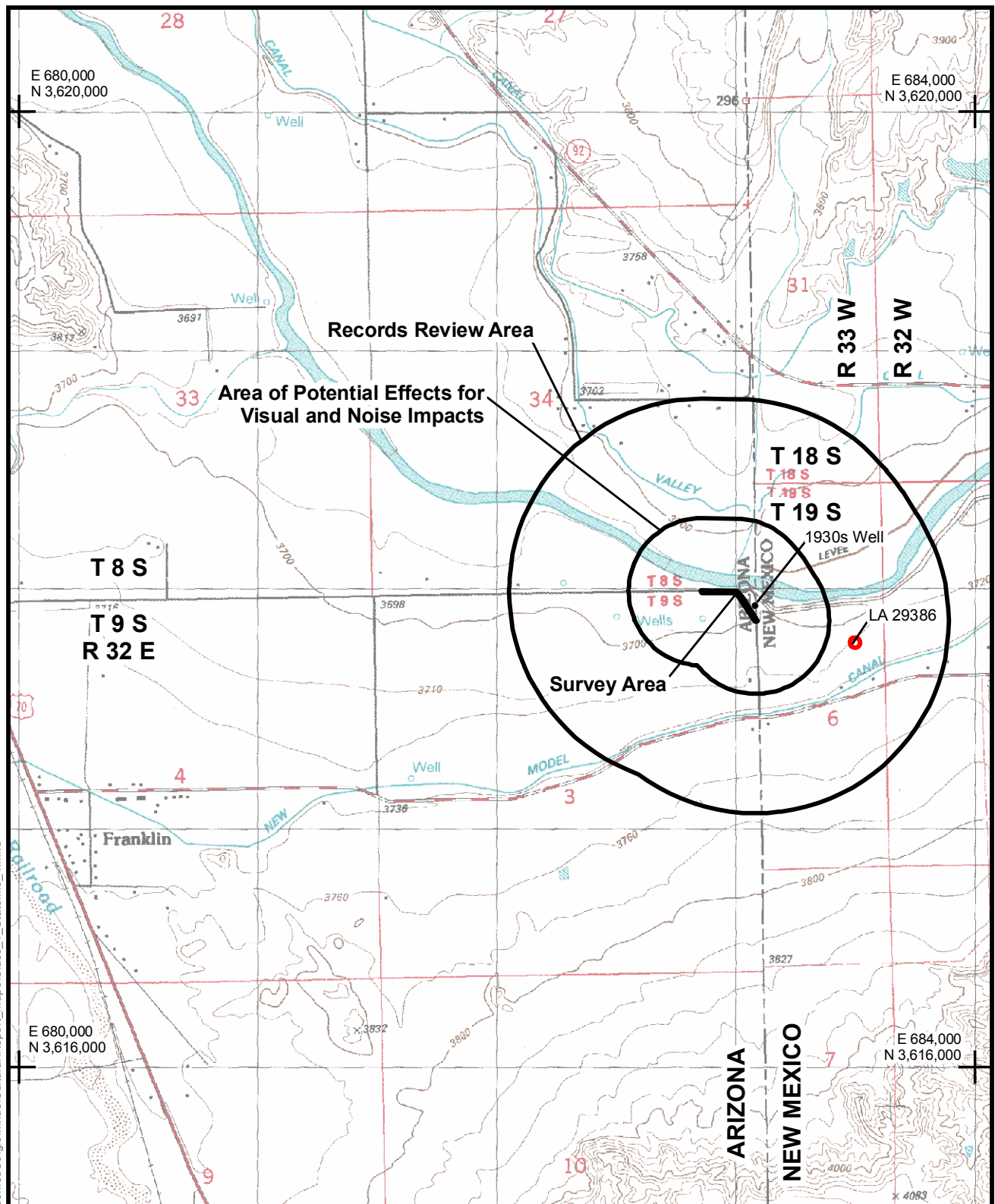
The damaged segment of Stateline Road is in the SE1/4 SE1/4 of Section 34, Township 8 South, Range 32 East and the NE1/4 NE1/4 of Section 3, Township 9 South, Range 32 East, Gila and Salt River Baseline and Meridian. The area is depicted on the Duncan U.S. Geological Survey 7.5-minute quadrangle (Figure 2).

To provide temporary access, Greenlee County made arrangements to allow traffic to drive across an agricultural field adjacent to the washed out section of Stateline Road. The proposed project would involve grading and graveling a realignment of Stateline Road along this route.



P:\FEMA\15703078\_Gila\_Vall\_GreenleeCo\cultural\Gila\_Vall\_graphics\Proj\_Locate\_GilaVall.ai






P:\FEMA\15703078\_Gila\_Valley\_GreenleeCo\GIS\mxd\Class\_1\_Stateline\_1.mxd

Map Source: Duncan, Arizona & New Mexico  
 USGS 7.5' Quadrangle  
 (32109f1/CC:8 NE) NAD 1927, UTM Zone 12  
 Gila and Salt River Baseline and Meridian



The Arizona Land Resource Information System and the New Mexico Resource Geographic Information System indicate the entire records review area is private land.

 Previous Recorded Cultural Resource

### Stateline Road Study Area

Figure 2

The proposed project would also replace about 700 feet of bank protection by installing stacks of large concrete-filled tires. The Phelps Dodge Mining Company has agreed to donate worn-out tires from large haul trucks used in nearby mines. Approximately 75 tire stacks would be installed and held in place with cables and rail steel driven through the tire stacks and into the ground. An average of about six tires would be placed in each stack, and most of the stacks would be buried behind the exposed riverbank. Engineering fabric would be placed between tire stacks and the bank. Two sloping rows of tire stacks would be placed perpendicularly to the bank and extend into the channel to slow future flood flows.

Construction of the Stateline Road realignment and the bank protection would involve use of a wheel tire loader (Cat 950), bulldozers, excavators, backhoes, a dump truck, an equipment service truck, pickups, and a flatbed trailer. Access to the project site would be from Stateline Road. Construction equipment and materials would be temporarily stored at staging areas in the previously disturbed adjacent fields. Erosion protection measures during construction would include silt fencing and straw bails. Native vegetation at the construction site (mesquite trees, acacia trees, shrubs, and grasses) would be removed. Following construction, disturbed areas would be seeded with native plants. Construction is estimated to take 90 days and would be conducted between October and June to avoid the summer rainy season.

## **AREA OF POTENTIAL EFFECTS**

Regulations for *Protection of Historic Properties* define the area of potential effects as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties” [Title 36, Code of Federal Regulations, Part 800.1(d)]. The area of potential effects for construction impacts was defined as those areas that could be disturbed by construction activities related to the proposed repair of the damaged road and replacement of bank protection. Because the project would result in only minor changes to the landscape and essentially restore the areas to pre-flood conditions, there is little potential for indirect effects beyond the construction zones due to visual intrusions or noise, but potential impacts were considered within 1,000 feet of the construction zones.

## **ENVIRONMENTAL SETTING**

The project area is in the upper Gila River valley at an elevation of about 3,650 feet above sea level. Peaks in the Peloncillo Mountains to the west rise to elevations above 6,000 feet, and McMullen Peak in the highlands to the north in New Mexico reaches a height of 7,500 feet. Average annual precipitation is less than 10 inches, with the greatest amounts falling from June through August. Average daily temperatures vary from about 40 degrees Fahrenheit in January to 79 degrees in July (Sellers and Hill 1974:194). Mean minimum daily temperatures are below freezing in January and 62 to 64 degrees in July and August.

Natural vegetation in the region is Arizona Upland Sonoran Desertscrub (Northern Arizona University 2005), which is gradually replaced by mesquite, chaparral, and oak woodland as the elevation increases (Sellers and Hill 1974:194). The area in the project vicinity is sparsely populated, but has been highly altered by agricultural development, and virtually no natural vegetation is present.

## **CULTURAL HISTORY**

Southeastern Arizona is one of the least understood archaeological regions in the southwestern United States. Evidence for prehistoric occupation is widespread and abundant, but the region contains a diversity of archaeological materials that cannot easily be placed into the traditional Southwestern cultural

classifications. The cultural history of southeastern Arizona can be divided into six periods that represent broad changes in regional adaptations and lifeways. These include the Paleoindian (circa 12,000–8500 B.C.), Archaic (circa 8,500–1500 B.C.), Late Archaic/Early Agricultural (circa 1500 B.C.–A.D. 650), Formative (circa A.D. 650–1400), Ethnohistoric (aboriginal protohistoric and historic) (circa A.D. 1400–1950), and Euro-American historic (circa A.D. 1500–1950) periods.

Evidence of the earliest occupants of southern Arizona is rare, especially for claims of a pre-12,000 B.C. occupation (Whittlesey and others 1994). Rogers (1958) suggested that the heavily patinated flaked stone tools of the San Dieguito complex, which were found along the Santa Cruz, Rillito, and Pantano drainages in the Tucson Basin, indicate great antiquity. However, corroborating chronometric evidence for these claims is lacking.

The Paleoindian Clovis culture is the first well-documented occupation of southern Arizona. The Ice Age Pleistocene era was coming to an end at that time, but the climate was cooler and wetter than the modern regime (Reid and Whittlesey 1997). Clovis people hunted large game such as mammoths that lived in the region at that time. Several Clovis sites have been found in the southern San Pedro River valley, but elsewhere in Arizona evidence of the Paleoindian period is limited mostly to isolated surface artifacts (Agenbroad 1967; Ayres 1970; Doelle 1985; Huckell 1984; North and others 2005). An isolated Clovis point was found north of the Gila River east of Safford (Euler and Bartlett 1989). Some archaeologists attribute the absence of Paleoindian sites to the lack of exposed Pleistocene geologic deposits (Huckell 1984:134; Marmaduke and Conway 1984) while others (Whittlesey and others 1994) suggest that the extensive amount of archaeological research in southern Arizona should have found more evidence of a Paleoindian occupation if it had been widespread.

The subsequent Archaic period reflects a lifestyle characterized by hunting and gathering in the context of the Holocene environmental regime (Willey and Phillips 1958). Archaic hunter-gatherers exploited a diversity of plant resources and game species, smaller than the megafauna that became extinct at the end of the Pleistocene era. The Archaic period in southeastern Arizona has been referred to as the Cochise culture (Antevs 1941; Sayles and Antevs 1941; Whalen 1971). Huckell (1984) divided the Archaic period into three broad temporal divisions: Early (circa 8500 to 4800–4000 B.C.), Middle (circa 4800–4000 to 1500 B.C.), and Late (circa 1500 B.C.–A.D. 300). Evidence for Early Archaic use of southern Arizona is rare and appears to be due either to deep burial of sites in alluvium or complete erosion of sites. Early Archaic period projectile points have been recovered in southern Arizona in places such as the Ventana Canyon Site (Douglas and Craig 1986).

Evidence of occupation of southern Arizona during the Middle Archaic period is more common (Whittlesey and others 1994:113-117). Middle Archaic sites and isolated projectile points have been recovered along the Santa Cruz River (Gregory 1999; Stacy and Hayden 1975), throughout the Tucson Basin (Huckell 1984), and in the Sulphur Springs and San Pedro valleys (Agenbroad 1970, 1978; Sayles and Antevs 1941). No Middle Archaic sites have been identified in the upper Gila River valley; the closest is along the San Pedro River near its juncture with Aravaipa Creek (Gilman and Richards 1975; Whalen 1971).

Research in the Tucson Basin has shown that Late Archaic groups were less mobile and more dependent on maize agriculture than archaeologists previously had recognized (Altschul 1995; Deaver and Ciolek-Torrello 1995; Gregory 2001; Gregory and Mabry 1998:11; Huckell 1995, 1996; Mabry 1998; Mabry and others 1997; Matson 1991; Roth 1992, 1993a, 1993b; Wills 1988). In some areas, this period is now labeled the Early Agricultural period rather than the Late Archaic.

While maize and tobacco were cultivated at this time, Early Agricultural populations also continued to exploit indigenous animal and plant resources. Recent discoveries at the Las Capas site in the Tucson

Basin included a canal system that dates to about 1200–1100 B.C., making it the oldest canal system in the southwest United States (Mabry 1999). Some of the oldest ceramics, including small bowls and fired clay figurines, were produced early in this period (Gregory 1999; Heidke 1997; Heidke and Ferg 1998). Later, circa A.D. 150 to 650, use of pottery became widespread, with storage jars dominating ceramic assemblages.

During the subsequent Formative period, there is evidence of widespread and long, intensive occupation of the region by village dwelling farmers (Bronitsky and Merritt 1986; Hadley and others 1991). Beginning around A.D. 650, two cultural traditions are recognized in the region—the Hohokam and the Mogollon (Heckman and others 2000).

The Hohokam were master agriculturalists of the Sonoran Desert, who relied on canal irrigation and floodwater farming as they developed complex social and ceremonial systems (Heckman and others 2000). The Hohokam occupation focused on the Gila, Salt, and Santa Cruz, river valleys, but encompassed most of southern Arizona. During the early Formative period, the Hohokam lived in pit house villages, manufactured plain and red-on-buff pottery, created shell and turquoise jewelry, cremated their dead, and built ballcourts at many of the larger villages (Cordell 1997; Crown and Judge 1991). Substantial Hohokam settlements were established along the lower San Pedro River to the west (Heckman and others 2000). The Safford area appears to represent the easternmost extent of the Hohokam culture (Gumerman and Haury 1979).

The Mogollon, who occupied the mountains and upland valleys of eastern Arizona and western New Mexico, were more mobile than the Hohokam, and depended more on indigenous plant foods and hunting (Heckman and others 2000; Reid and Whittlesey 1997). Several regional variants of the Mogollon culture have been recognized (Wheat 1955). The San Simon variant of southeastern Arizona was strongly influenced by the Hohokam (Sayles 1945). The San Simon Mogollon lived in pit houses, manufactured plain, red-on-brown, and red-on-white ceramics, practiced cremation and inhumation, and built ballcourts in villages closest to the Hohokam (Stone 1997). Remnants of the Mogollon culture have been located at the Colvin-Owens site in Eden (Colvin 1998). The Mimbres variant was primarily centered in the Mimbres Valley in southwestern New Mexico, but extended west to the headwaters of the Gila River (Lekson 1990, 1996, Woosley and McIntyre 1996). The Mimbres Mogollon lived in riverine agricultural villages, practiced inhumation, and manufactured black-on-white pottery with distinctive geometric, zoomorphic, and anthropomorphic designs. Substantial Mimbres sites have been identified around Safford and in the foothills of the Pinaleño Mountains (Brown 1973).

During the Classic period, a new cultural tradition, referred to as the Salado, appeared in southeastern Arizona. The relationship between the Hohokam, Mogollon, and Salado cultural traditions is complex and poorly understood (Heckman and other 2000). Rather than a single cultural group, the Salado probably were a mosaic of cultures or ethnic groups incorporating aspects of the Hohokam and Mogollon cultural traditions throughout much of southeastern Arizona and southwestern New Mexico (Heckman and others 2000; Reid and Whittlesey 1997; Whittlesey and others 1994). The Salado tradition is characterized by sites with large room blocks arranged around plazas, inhumation burial, and a ceramic complex of plain wares, red wares, bichromes, and polychromes. The Curtis Site in the eastern end of the Safford Valley is a Salado settlement site with a large ballcourt. Historic-era settlers in the area referred to the site as Pueblo Viejo or Old Town (Colvin 1998).

Little is known about the aboriginal protohistoric period. Sometime between A.D. 1400 and 1450, the established prehistoric cultural systems in southeastern Arizona and across most of the Southwest changed drastically. When Spanish explorers first traveled through this part of Arizona in 1539 and 1540 along routes not precisely known, they observed ruins of abandoned Indian habitations (Hadley and others 1991). One hundred and fifty years later, missionary Father Eusebio Kino found the Sobaipuri, a

group of Upper Pimans, practicing irrigated agriculture and living in large villages along the San Pedro River and areas to the west.

During the late-seventeenth and early-eighteenth centuries, Western and Chiricahua Apache groups moved into the region. The Apache were highly mobile hunters and gatherers skilled at exploiting seasonal variations in indigenous resources. After acquiring horses from the Spanish in the early to middle 1700s, the Apache became accomplished raiders. Spanish records document that in response to Apache raiding, the Sobaipuri moved to the west in the mid-eighteenth century (Hadley and others 1991). Mountain camps provided a safe base from which the Apache conducted raids for food and horses. The Apache dominated the region until the U.S. Army forcibly removed and concentrated them on reservations in 1873, but hostilities continued intermittently until 1886 (Hadley and others 1991; Stone 1997).

In 1846, when the United States declared war on Mexico, General Stephen Watts Kearny and the Army of the West were dispatched to California from Fort Leavenworth, Kansas and one hundred dragoons manhandled two howitzers as they blazed a trail through the rugged upper Gila River valley. Lieutenant William H. Emory of the Corps of Topographical Engineers was with Kearny, and produced a good map of the trail. Captain Philip St. George Cooke followed behind Kearny with 500 volunteers of the Mormon Battalion, and these infantrymen built a wagon road as they went. They skirted south around the narrow and rugged upper Gila River valley, and followed the San Pedro River north to the vicinity of present-day Benson. Cooke and his volunteers then headed northwest toward Tucson, and from Tucson followed the Santa Cruz River north to the Gila River (Stein 1994; Walker and Bufkin 1986).

Beginning in 1849, thousands of gold seekers traveled the Gila Trail on their way to the California Gold Rush. Although some of the travelers used the trail through the Upper Gila River valley, a majority followed the route used by the Mormon Battalion, which was located in easier terrain and accommodated wagons. The 1848 Treaty of Guadalupe Hidalgo that ended the War with Mexico ceded land north of the Gila River to the United States. The United States acquired additional land from Mexico south of the Gila River with the 1854 ratification of the Gadsden Purchase, primarily to secure this travel corridor.

Although a few farms and ranches were established in southern Arizona during the Mexican era (1821–1848), Apache raids discouraged settlement. The upper Gila River valley remained the exclusive territory of the Apaches until the 1870s, when the United States established three military forts in the area and the White Mountain–San Carlos Apache Reservation was created. Lured by the promise of free land through the Homestead Act of 1862 and of U.S. Army protection from Apache raiders, Mexican and American settlers began to occupy the area in the 1870s. The new settlers began digging irrigation canals in the Safford Basin amid the still visible remnants of the prehistoric canals that had been abandoned some four centuries earlier (Colvin 1998). In 1879, Mormon settlers began to arrive in the Safford Basin.

In 1895, Mormons founded the town of Franklin and organized a ward, naming it for Franklin D. Richards, a deceased apostle of the Mormon Church (Granger 1983). The larger town of Duncan, approximately 3 miles north of Franklin, had been founded 12 years earlier in 1883 when the Arizona & New Mexico Railroad was built. The town was named after Duncan Smith, the managing director of the Arizona Copper Company. In 1895, construction of the Gila Valley, Globe & Northern Railroad through the valley expanded markets for agricultural goods and encouraged expansion of agriculture and population growth. Just 5 years after the construction of the railroad, agricultural goods from the upper Gila River valley were being shipped throughout the West (Colvin 1998). The railroad solidified the town of Duncan as an important mining shipping point for markets in the northern, mid-west and eastern United States. U.S. Highway 70, also known as the Duncan-Safford Highway, was built through the Franklin area in 1927 (Hamilton 2000).

## **RECORDS REVIEW**

Records were reviewed to identify information about prior cultural resource studies and recorded cultural resources within 0.5 mile of the project area. The review was based primarily on the AZSITE Cultural Resources Inventory, which is a geographic information system database that includes records of the AZSITE Consortium members (Arizona State Museum, Arizona State University, Museum of Northern Arizona, and State Historic Preservation Office) and other participating agencies, such as the Bureau of Land Management (AZSITE Consortium 2006). AZSITE includes information about properties listed in the National Register. The Bureau of Land Management Safford Field Office also was consulted about the project and no additional information was identified. Other information on file at the Arizona State Museum and relevant reports also were reviewed. In addition, records of the New Mexico Cultural Resource Information System were reviewed. This database includes properties listed in the National Register and the New Mexico State Register of Cultural Properties.

The records review did not identify any prior cultural resource studies within the records review area. The only archaeological site recorded, LA 29386, is in New Mexico (refer to Figure 2). The site, which was recorded and tested in 1980 by the New Mexico State University Cultural Resource Management Division, is a scatter of Mogollon pottery sherds and flaked stone dating between A.D. 1000 and 1400.

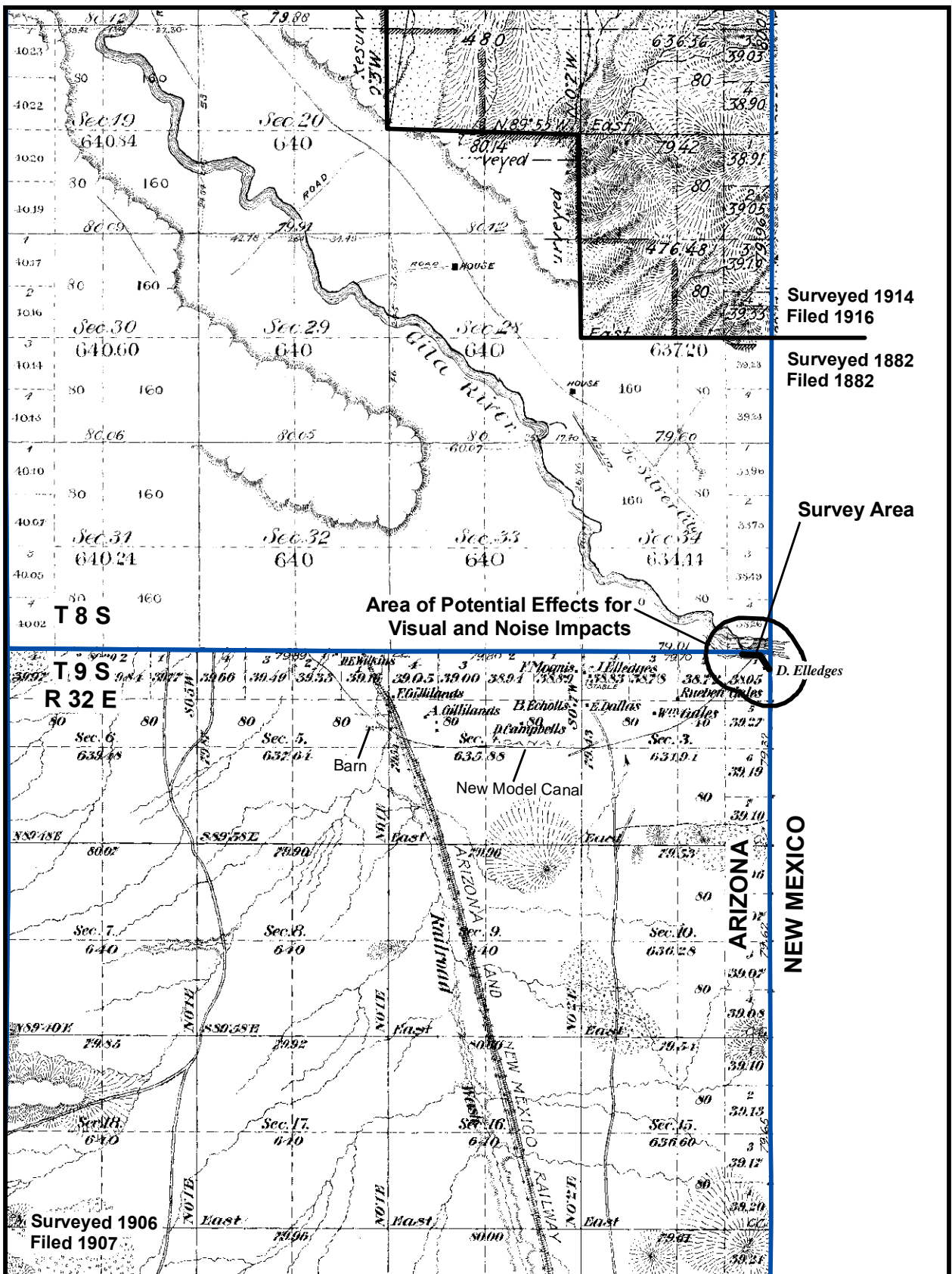
### **General Land Office Plats**

General Land Office plats on file at the Arizona State Office of the Bureau of Land Management were reviewed for indications of potential unrecorded historical resources. The General Land Office first surveyed the southwestern part of Township 8 South, Range 32 East (where the project is located) in 1882. The northeastern part was not surveyed until 1914. Township 9 South, Range 32 East was surveyed in 1906.

The 1882 plat of the southwest part of Township 8 South, Range 32 East depicted only two unnamed roads on the south side of the Gila River (Figure 3). A road on the north side was identified as the road from Clifton to Sliver City, and two houses were mapped along it. Other cultural features included three short segments of unnamed roads and an irrigation ditch. The 1914 survey in the northeastern part of the township mapped two houses labeled J.A. Gamble and J.A. Hunter and an associated well and fenced areas. An unnamed road provided access to the houses, and two other unnamed roads were mapped.

The 1906 survey of Township 9 South, Range 32 East mapped 11 houses labeled D.E. Wilkins, F. Gillilands, A. Gillilands, D. Campbells, B. Echolls, F. Mognis, J. Elledges, E. Dallas, Wm, Gales, Rueben Gales, and D. Elledges. All of these appear to have been 40- or 80-acre homesteads in the northeast corner of the township. A stable also was identified on the homestead of J. Elledges. The home labeled D. Elledges was mapped just southwest of the project area. Other cultural features included the Arizona & New Mexico Railway and an irrigation canal (in the same general location as the current New Model Canal). A barn also was mapped near the intersection of the railroad and canal. Fences were depicted on both sides of the railroad, and a feature on the west side appears to have been a telephone or telegraph line. Two unnamed north-south roads also were mapped—one to the west of the railroad and one to the east.

P:\FEMA\15703078\_Gila\_Vail\_Greenlee\Colgis\mxds\Cultural\Report\_maps\GLOs\_StateLine\_1.mxd



General Land Office Plats

Figure 3

## **SURVEY METHODS AND RESULTS**

The area of potential effects for construction impacts was intensively surveyed for cultural resources by walking observational transects at intervals of 20 meters (65 feet) along the proposed realignment of Stateline Road (Photograph 1). About 3 acres of privately owned land was intensively surveyed. The area of the proposed bank stabilization is almost entirely within the scoured channel of the Gila River, and was only spot-checked (Photograph 2). A windshield reconnaissance was conducted to identify any historic-age buildings or structures within the area of potential effects for indirect effects. A GeoExplorer III global positioning system unit was used for mapping. This system has an accuracy of  $\pm 5$  meters with differential correction.



**Photograph 1. Proposed Realignment of Stateline Road.**  
**This view to the southeast shows the dirt track being used for temporary access.**



**Photograph 2. Eroded South Bank of Gila River where Stateline Road was Washed Out (view southeast).**  
**Stacks of concrete-filled tires would be installed in this area to protect the bank from future floods.**



The survey identified one isolated feature—an irrigation well located between the original alignment of Stateline Road and the proposed realignment (Photograph 3). A plate on the wellhead indicates the equipment was manufactured in 1939, and the landowner confirmed that the well had been dug around that time. The pumping equipment has been updated to operate with a more recent model automobile engine modified to burn natural gas. The water is piped underground to fields. Because the well does not appear to have any historic values that warrant preservation, we recommend it be considered ineligible for the National Register. The planned repairs would not affect the well. The reconnaissance of the area of potential effects for visual and noise impacts did not identify any evidence of the D. Elledges homestead or other historic-age buildings or structures.



**Photograph 3. Well between the Original Stateline Road and Proposed Realignment. The flood-damaged segment of Stateline Road is visible in the background of this view to the northeast.**

## **CONCLUSION AND RECOMMENDATIONS**

Pursuant to Stipulation VII.C of the Programmatic Agreement regarding FEMA-1586-DR-AZ, we recommend a determination of no historic properties affected. No further consideration of cultural resources is recommended unless archaeological resources or human remains were to be unexpectedly found during project implementation. In the unlikely event that previously unidentified cultural resources were found during construction activities, FEMA would require Greenlee County to stop work at that location and take reasonable steps to avoid or minimize harm to the property and notify FEMA through ADEM. FEMA would notify the State Historic Preservation Office at the earliest possible time and consult with them to develop actions to take into account the effects of the project on the discovered resources, pursuant to the Programmatic Agreement Stipulation X regarding unexpected discoveries.

If any discovery were to include human burials and associated objects, FEMA requires that Greenlee County would stop work at that location, take reasonable steps to avoid or minimize harm, and notify the Arizona State Museum in accordance with the Arizona Burial Law (Arizona Revised Statutes 41-865). Pursuant to that law, the Arizona State Museum director would determine appropriate treatment in consultation with interested parties.

## REFERENCES CITED

Agenbroad, L. B.

1967 The Distribution of Fluted Points in Arizona. *Kiva* 32(4):113-120.

1970 *Cultural Implications from the Statistical Analysis of a Prehistoric Lithic Site in Arizona*. MA thesis, Department of Anthropology, University of Arizona, Tucson.

1978 Cultural Implications from the Distributional Analysis of a Lithic Site, San Pedro Valley. In *Discovering Past Behavior: Experiments in the Archaeology of the American Southwest*, edited by P. Grebinger, pp. 55-71. Gordon and Breach, New York..

Altschul, Jeffrey H.

1995 Introduction. *Kiva* 60(4):457-464.

Antevs, E.

1941 Age of the Cochise Culture Stage. In *The Cochise Culture*, by E.B. Sayles and E. Antevs. Medallion Paper 29. Gila Pueblo Archaeological Foundation, Globe, Arizona.

Ayres, J. E.

1970 Two Clovis Fluted Points from Southern Arizona. *Kiva* 35(3):121-124.

AZSITE Consortium

2006 *AZSITE Cultural Resources Inventory*. Arizona State Museum, Arizona State University, Museum of Northern Arizona, State Historic Preservation Office. Electronic document, <http://azsite.asu.edu>, accessed 20 February 2006.

Bronitsky, Gordon, and James D. Merritt

1986 *The Archaeology of Southwest Arizona: A Class I Cultural Resource Inventory*. Cultural Resources Series 2. Bureau of Land Management, Phoenix.

Brown, Jeffery L.

1973 *The Origin and Nature of Salado: Evidence from the Safford Valley, Arizona*. Ph.D. dissertation, Department of Anthropology, University of Arizona, Tucson.

Colvin, Verna Rae

1998 *First Came the Water and Then the People: History of Water in Graham County*. Eden, Arizona.

Cordell, Linda

1997 *Archaeology of the Southwest*, 2<sup>nd</sup> edition. Academic Press, New York.

Crown, Patricia L., and James Judge (editors)

1991 *Chaco and Hohokam: Prehistoric Regional Systems in the American Southwest*. School of American Research Press, Santa Fe, New Mexico.

Deaver, William L., and Richard Ciolek-Torrello

1995 Early Formative Period Chronology for the Tucson Basin. *Kiva* 60(4):481-529.

Doelle, William H.

1985 *Excavations at the Valencia Site, a Preclassic Hohokam Village in the Southern Tucson Basin*. Anthropological Paper 3. Institute for American Research, Tucson.

Douglas, John E., and Douglas B. Craig

1986 *Investigations of Archaic and Hohokam on the Flying V Ranch, Tucson, Arizona*. Archaeological Report 13. Pima Community College, Tucson.

- Euler, R. Thomas, and Michael H. Bartlett  
 1989 *A Class III Archaeological Survey of the Sanchez Copper Project Area, Graham County, Arizona.* SWCA Environmental Consultants, Tucson.
- Gilman, P., and B. Richards  
 1975 *An Archaeological Survey of the Graham-Curtis Project: Phase II.* Archaeological Series 65. Arizona State Museum, University of Arizona, Tucson.
- Granger, Byrd Howell  
 1983 *Arizona's Names (X Marks the Place).* Falconer Publishing Company, Tucson.
- Gregory, David A. (editor)  
 1999 *Excavations in the Santa Cruz Floodplain: The Middle Archaic Component at Los Pozos.* Anthropological Paper 20. Center for Desert Archaeology, Tucson.  
 2001 *Excavations in the Santa Cruz River Floodplain: The Early Agricultural Period Component at Los Pozos.* Anthropological Papers 21. Center for Desert Archaeology, Tucson.
- Gregory, David A., and Jonathan B. Mabry  
 1998 *Revised Research Design for the Archaeological Treatment Plan, Interstate 10 Corridor Improvement Project, Tangerine Road to Interstate 19 Interchange.* Technical Report 97-19. Center for Desert Archaeology, Tucson.
- Gumerman, G. J., and E. Haury  
 1979 Prehistory: Hohokam. In *Southwest*, edited by Alfonso Ortiz, pp. 75-90. Handbook of North American Indians, Vol. 9, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Hadley, Diana, Peter Warshall, and Don Bufkin  
 1991 *Change in Aravaipa, 1870-1970: An Ethnoecological Survey.* Cultural Resources Series 7. Bureau of Land Management, Phoenix.
- Hamilton, Alan  
 2000 *Arizona Roads: A Comprehensive Guide to Arizona's State, U.S., and Interstate Routes.* Electronic document, [www.arizonaroads.com](http://www.arizonaroads.com), accessed on 12 October 2006.
- Heckman, Robert A., Barbara K. Montgomery, and Stephanie M. Whittlesey  
 2000 *Prehistoric Painted Pottery of Southeastern Arizona.* Technical Series 77. Statistical Research, Tucson.
- Heidke, James M.  
 1997 The Earliest Tucson Basin Pottery. *Archaeology in Tucson* 11(3): 9-10. Center for Desert Archaeology, Tucson.
- Heidke, James M., and Alan Ferg  
 1998 Ceramic Containers and Other Artifacts of Clay. In *Excavation in the Santa Cruz Floodplain: The Early Agricultural Period Component at Los Pozos.* Anthropological Paper 21. Center for Desert Archaeology, Tucson.
- Huckell, Bruce B.  
 1984 *The Archaic Occupation of the Rosemont Area, Northern Santa Rita Mountains, Southeastern Arizona.* Archaeological Series 147(1). Arizona State Museum, University of Arizona, Tucson.  
 1995 *Of Marshes and Maize: Preceramic Agricultural Settlements in the Cienega Valley, Southeastern Arizona.* Anthropological Paper 59. University of Arizona, Tucson.  
 1996 The Archaic Prehistory of North American Southwest. *Journal of World Prehistory* 10(3):305-373.

Lekson, Stephen H.

- 1990 *Mimbres Archaeology of the Upper Gila, New Mexico*. Anthropological Papers 53. University of Arizona, Tucson.
- 1996 Southwestern New Mexico and Southeastern Arizona, A.D. 900 to 1300. In *The Prehistoric Pueblo World, A.D. 1150-1350*, edited by Michael Adler, pp. 170-176. University of Arizona Press, Tucson.

Linda Laird and Associates

- 1985 *National Register of Historic Places Inventory Nomination Form: Safford Multiple Resource Area*. Tucson.

Mabry, Jonathan B.

- 1998 Architecture and Site Structure. In *Archaeological Investigations of Early Village Sites in the Middle Santa Cruz Valley: Analysis and Synthesis*. Anthropological Papers 19. Center for Desert Archaeology, Tucson.

Mabry, Jonathan B., D.L. Swartz, H. Wochehl, J.J. Clark, G.H. Archer, and M.W. Lindeman

- 1997 *Archaeological Investigations of Early Village Sites in the Middle Santa Cruz Valley: Descriptions of the Santa Cruz Bend, Square Hearth, Stone Pipe, and Canal Sites*. Anthropological Papers 18. Center for Desert Archaeology, Tucson.
- 1999 Las Capas and Early Irrigation Farming. *Archaeology Southwest* 13(1):14. Center for Desert Archaeology, Tucson.

Marmaduke, William S., and Laverne Conway

- 1984 *A Sample Survey: Cultural Resources on Potential Agriculture Development Land on the Gila River Indian Reservation*. Northland Research, Flagstaff.

Matson, R.G.

- 1991 *The Origins of Southwestern Agriculture*. University of Arizona Press, Tucson.

North, Chris D., Michael S. Foster, John M. Lindly, and Douglas R. Mitchell

- 2005 *A Newly Discovered Clovis Point from the Phoenix Basin and an Update on Arizona Clovis Point Attributes*. *Kiva* 70(3):293-307.

Northern Arizona University

- 2005 *Arizona Upland Sonoran Desertscrub*. Northern Arizona University. Electronic document, [http://jan.ucc.nau.edu/~plants-c/bio414/Biozone/az\\_us\\_ds.html](http://jan.ucc.nau.edu/~plants-c/bio414/Biozone/az_us_ds.html), accessed 15 September 2005.

Reid, Jefferson J., and Stephanie Whittlesey

- 1997 *The Archaeology of Ancient Arizona*. University of Arizona Press, Tucson.

Rogers, Malcolm D.

- 1958 San Dieguito Implements from Terraces of the Rincon-Pantano and Rillito Drainage System. *Kiva* 24:1-23.

Roth, Barbara J.

- 1992 Sedentary Agriculturalists or Mobile Hunter-Gatherers? Recent Evidence on the Late Archaic Occupation of the Northern Tucson Basin. *Kiva* 57(4):291-314.
- 1993a Changing Perceptions of the Late Archaic: An Example from the Southern Southwest. *North American Archaeologist* 14(2):123-137.

Roth, Barbara J.

- 1993b *Archaeological Monitoring of the Excavation of a Utility Trench along Interstate 10, Tucson, Pima County, Arizona*. Tierra Right of Way, Tucson.

- Sayles, E. B.  
1945 *The San Simon Branch: Excavations at Cave Creek and in the San Simon Valley I: Material Culture*. Medallion Paper 29. Gila Pueblo Archaeological Foundation, Globe, Arizona.
- Sayles, E. B., and E. Antevs  
1941 *The Cochise Culture*. Medallion Paper 29. Gila Pueblo Archaeological Foundation, Globe, Arizona.
- Sellers, William D., and Richard H. Hill  
1974 *Arizona Climate, 1931-1972*. 2nd, revised edition. University of Arizona Press, Tucson.
- Stacey, V. K., and J. D. Hayden  
1975 *Saguaro National Monument: An Archaeological Overview*. Arizona Archaeological Center, National Park Service, Tucson.
- Stein, Pat H.  
1994 *Historic Trails in Arizona from Coronado to 1940: Historic Context Study*. SWCA Environmental Consultants, Flagstaff, and State Historic Preservation Office, Arizona State Parks, Phoenix.
- Stone, Lyle M.  
1997 *A Cultural Resources Survey of Existing and Proposed Right-of-way along U.S. Highway 191, Mileposts 144.07-154.52 (Greenlee County Line to Three-way), Greenlee County, Arizona*. Report 96:77. Archaeological Research Services, Tempe.
- Walker, Henry P., and Don Bufkin  
1986 *Historical Atlas of Arizona*. 2nd edition. University of Oklahoma Press, Norman.
- Whalen, N. M.  
1971 *Cochise Cultural Sites in the Central San Pedro Drainage, Arizona*. Ph.D. dissertation, University of Arizona, Tucson.
- Wheat, Joe Ben  
1955 *Mogollon Culture Prior to A.D. 1000*. Memoirs 10. Society for American Archaeology, and Memoirs 82. American Anthropological Association. Menasha, Wisconsin.
- Whittlesey, Stephanie M., Richard S. Ciolek-Torrello, and Matthew A. Sterner  
1994 *Southern Arizona, the Last 12,000 Years: A Cultural-Historic Overview for the Western Army National Guard Aviation Training Site*. Technical Series 48. Statistical Research, Tucson.
- Willey, Gordon R., and Philip Phillips  
1958 *Method and Theory in American Archaeology*. University of Chicago Press, Chicago.
- Wills, W.H.  
1988 *Early Prehistoric Agriculture in the American Southwest*. School of American Research Press, Santa Fe, New Mexico.
- Woosley, Anne I., and Allan J. McIntyre  
1996 *Mimbres Mogollon Archaeology*. Archaeology Series. 10. Amerind Foundation, Dragoon, Arizona, and University of New Mexico Press, Albuquerque.