



Integrated Cultural Resources Management Plan  
U.S. Army Garrison Yuma  
Yuma, Arizona  
Fiscal Years 2012-2016





**INTEGRATED  
CULTURAL RESOURCES MANAGEMENT PLAN  
U.S. ARMY GARRISON YUMA**

**YUMA, ARIZONA  
FISCAL YEARS 2012-2016**

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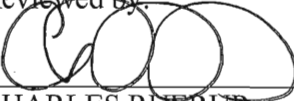
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U.S. ARMY GARRISON YUMA**




**YUMA, ARIZONA  
FISCAL YEARS 2012-2016**


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  - 9. Maintenance, Repair, Alteration, or Demolition of National Register-Eligible Historic Buildings and Structures

## ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
AAFES	Army and Air Force Exchange Service
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
AEC	Army Environmental Center
AHPA	Archaeological and Historic Preservation Act
AIRFA	American Indian Religious Freedom Act
AMC	Army Materiel Command
APE	Area of Potential Effect
AR	Army Regulation
ARPA	Archaeological Resources Protection Act
ASHTF	Ammunition Storage, Handling, and Testing Facilities
ASM	Arizona State Museum, also Applied Systems Management, Inc.
ATEC	Army Test and Evaluation Command
AZSITE	Arizona Site Record Database
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
BP	Before Present
BRAC	Base Realignment and Closure
CA	Comprehensive Agreement
CAMA	California-Arizona Maneuver Area
CERL	Construction Engineering Research Laboratory
CFR	Code of Federal Regulations
CIS	Capital Investment Strategy
CJA	Command Judge Advocate
Council	Advisory Council on Historic Preservation
CRIT	Colorado River Indian Tribes
DA	Department of the Army
DARCOM	Development and Readiness Command
DOD	Department of Defense
DTC	Desert Training Center (Historically), also Army Developmental Test Command (2005)
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EUL	Enhanced Use Lease
FPO	Federal Preservation Officer
FR	Federal Regulation
FY	Fiscal Year
GIS	Geographic Information System
GPS	Global Positioning System
GSA	General Services Administration
HABS/HAER	Historic American Buildings Survey/Historic American Engineering Record
HARP	High-Altitude Research Project
HSTSS	Hardened Sub-Miniature Telemetry Sensor System
HQDA	Headquarters Department of the Army
ICRMP	Integrated Cultural Resources Management Plan
ICST	Initial Costs
IED	Improvised Explosive Device
IMCOM	Installation Major Command
INRMP	Integrated Natural Resources Management Plan

<b>IO</b>	Isolated Occurrence
<b>ISA</b>	Interservice Support Agreements
<b>ITAM</b>	Integrated Training Area Management
<b>JERC</b>	Joint Experimental Range Complex
<b>LCC</b>	Life Cycle Cost
<b>LEA</b>	Layaway Economic Analysis
<b>LHX</b>	Light Helicopters
<b>MACOM</b>	Major Command
<b>MCA</b>	Military Construction - Army
<b>MCAS</b>	Marine Corps Air Station
<b>mm</b>	millimeter
<b>MOA</b>	Memorandum of Agreement
<b>MTA</b>	Mobility Test Area
<b>NAGPRA</b>	Native American Graves Protection and Repatriation Act
<b>NASA</b>	National Aeronautics and Space Administration
<b>National Register</b>	National Register of Historic Places
<b>NEPA</b>	National Environmental Policy Act
<b>NHL</b>	National Historic Landmark
<b>NHPA</b>	National Historic Preservation Act
<b>NOI</b>	Notice of Intent
<b>NRHP</b>	National Register of Historic Places
<b>PA</b>	Programmatic Agreement
<b>PAM</b>	Pamphlet
<b>PAO</b>	Public Affairs Office
<b>PTRCI</b>	Properties of Traditional Religious and Cultural Importance
<b>REC</b>	Record of Environmental Consideration
<b>ROC</b>	Range Operations Center
<b>ROD</b>	Record of Decision
<b>RPMP</b>	Real Property Master Plan
<b>SADARM</b>	Sense and Destroy Armor
<b>SF</b>	Standard Form
<b>SHPO</b>	State Historic Preservation Officer
<b>SIR</b>	Savings-Investment Ratio
<b>SOP</b>	Standard Operating Procedure
<b>SRI</b>	Statistical Research, Inc.
<b>TCP</b>	Traditional Cultural Property
<b>TECOM</b>	Test and Evaluation Command
<b>THPO</b>	Tribal Historic Preservation Officer
<b>TJAG</b>	The Judge Advocate General
<b>TM</b>	Technical Manual
<b>UPH</b>	Unaccompanied Personnel Housing
<b>USACE</b>	United States Army Corps of Engineers
<b>US</b>	United States
<b>U.S.C.</b>	United States Code
<b>USGS</b>	United States Geological Survey
<b>USMC</b>	United States Marine Corps
<b>UTM</b>	Universal Transverse Mercator
<b>YPG</b>	Yuma Proving Ground

# 1. INTRODUCTION

## 1.1 PURPOSE AND SCOPE

This Fiscal Year (FY) 2012-2016 Integrated Cultural Resources Management Plan (ICRMP) outlines U.S. Army policies, procedures, and responsibilities for meeting cultural resources compliance and management requirements at the U.S. Army Yuma Proving Ground (YPG), Yuma, Arizona. The document has been prepared in accordance with Chapter 6 of Army Regulation (AR) 200-1 (Appendix A), which encompasses the requirements described in Section 2 of this document. The policies described herein are designed to ensure that YPG makes informed decisions regarding the cultural resources under its control, in compliance with public laws, in support of the military mission, and consistent with sound principles of cultural resources management.

This ICRMP is a 5-year plan. It is a component of the installation Master Plan, complementing other YPG plans (e.g., the Integrated Natural Resources Management Plan [INRMP]; U.S. Army Yuma Proving Ground 1998), and serves as the Garrison Manager's decision document for the conduct of cultural resources management actions. The YPG ICRMP is an internal Army compliance and management plan that integrates the installation's cultural resources program with ongoing mission activities, identifies potential conflicts between the installation's mission and the cultural resources management program, and outlines compliance actions needed to maintain the availability of mission-essential properties and acreage.

The scope of this plan includes regulations and guidance that go beyond the statutory authority of the Arizona State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (Council), and any affected Native American tribes. As a result, the plan is not intended to be the subject of, implemented by reference to, or included in National Historic Preservation Act (NHPA) Programmatic Agreements (PAs), Memoranda of Agreement (MOAs), or Native American Graves Protection and Repatriation Act (NAGPRA) Comprehensive Agreements (CAs). Sections of the YPG ICRMP that pertain to NHPA or NAGPRA compliance can be extracted from the document and those actions integrated by reference into a PA, MOA, or CA. Requests for review of the YPG ICRMP by entities other than Army organizations may be useful for the gathering of external expertise; however, review comments will be considered non-binding.

Upon acceptance, this updated ICRMP supersedes the 2006-2010 ICRMP (Peyton 2006) previously in force. Appropriate and applicable portions of the ICRMP and all other YPG-specific cultural resources guidance documents have been incorporated herein.

## 1.2 INSTALLATION DESCRIPTION

### 1.2.1 General Setting

Yuma Proving Ground encompasses portions of two counties in southwest Arizona—Yuma and La Paz. Situated east of the Colorado River and north of the Gila River, the 290-mile-long perimeter of the installation takes the shape of an irregular “U,” extending 58 miles north/south and 54 miles east/west (Figure 1-1). The installation is surrounded on three sides by federal land reserved either as National Wildlife Refuge land or Bureau of Land Management (BLM) land (public lands).

## 1.3 INSTALLATION DESCRIPTION

### 1.3.1 General Setting

Yuma Proving Ground encompasses portions of two counties in southwest Arizona—Yuma and La Paz. Situated east of the Colorado River and north of the Gila River, the 290-mile-long perimeter of the installation takes the shape of an irregular “U,” extending 58 miles north/south and 54 miles east/west (Figure 1-1). The installation is surrounded on three sides by federal land reserved either as National Wildlife Refuge land or Bureau of Land Management (BLM) land (public lands).

The reservation was originally composed of approximately 1395 square miles of both public and nonpublic lands withdrawn under provisions of Public Land Order No. 848 (dated 1 July 1952). However, through a series of “excess” actions and acquisitions, the total acreage of the installation has changed over time. Presently, the installation encompasses approximately 1,309.2 square miles (837,916 acres including 7,664 acres of State and private inholdings; <http://www.yuma.army.mil>, accessed March 2011).

### 1.3.2 Brief History

Archaeological evidence indicates that the YPG area was occupied by native peoples for the last 12,000 years, but the evidence suggests that much of that occupation was sporadic and ephemeral, mostly small nomadic groups traveling through the area. Because of the scarcity of water, the harsh climate and rugged landscape, historic occupation of the YPG area was equally sporadic until the early 1900s. Scattered gold and silver mining took place in the highlands, and farming was concentrated in the Gila and Colorado river valleys; however, no known town sites or other notable historic settlements are located within the boundary of YPG.

In 1942, the Army began to use the YPG area as a desert training center and, in 1943, the Yuma Test Branch began to operate along the banks of the Colorado River. Initially, the Army leased buildings in Yuma and conducted test work near Laguna Dam—the first mission was to test new bridge designs, boats, and well-drilling equipment for the Allied Armies during World War II. The Yuma Test Branch was officially closed in 1950 and all of the facilities were taken over by the U.S. Army Corps of Engineers (USACE), District Engineer in Los Angeles, who had most of the buildings and trailers dismantled and sold at public auction. In 1951, the installation was re-activated as the Yuma Test Station and used for desert environment testing. By 1955, the post had become a \$20 million test center and, by 1963, the installation had been placed under the command of the Army Materiel Command (AMC) and re-designated as YPG.

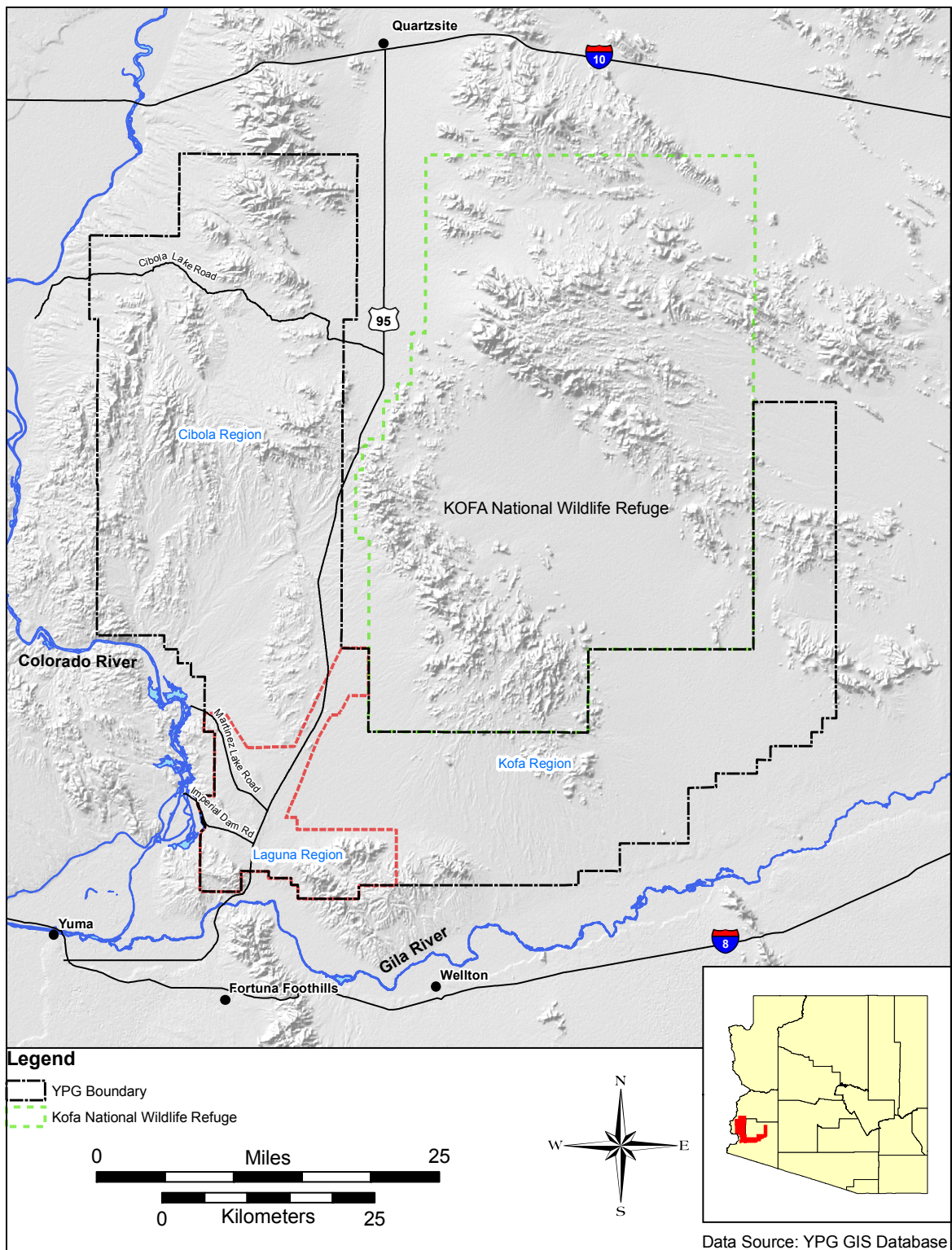


Figure 1-1. General Location of U.S. Army Yuma Proving Ground



As of 2010, YPG is operated by the U.S. Army Developmental Test Command (DTC), the Army's premier organization for developmental testing of weapons and equipment and a subordinate Command of the U.S. Army Test and Evaluation Command (ATEC). The YPG cultural resources management program is supported and overseen by the U.S. Army Installation Management Command (IMCOM), based at Fort Sam Houston, Texas.

For the past 30 years, YPG has operated as a major range and test facility for the Department of Defense (DOD) and has continued to be ideally suited for testing military equipment, weapons, vehicles, and aviation systems in desert environments. The installation is one of the largest civilian employers in the Yuma area.

Additional discussion of the major historical events associated with the installation's landscape, the environmental setting of the installation, and a brief description of YPG tenants and their activities can be found in Chapter 3.0.

### **1.3.3 Yuma Proving Ground Functional Units**

Currently, there are four functional units at YPG (see Figure 1-1), each of which supports a different function in relationship to YPG missions: Laguna, Kofa, Cibola, and the Airspace (not shown). Two additional units are situated elsewhere. The Tropic Test Center is headquartered at YPG with four field offices situated in Hawaii, Panama, Honduras and Surinam, and the Cold Regions Test Center is headquartered in Alaska.

**Laguna Region.** The Laguna Region is approximately 84 square miles in size, according to current YPG map records. Within this region are the Main Administrative Area, the Yuma Test Center, the Laguna Army Airfield, the Castle Dome Heliport, and the Air Cargo Complex. The Kofa Firing Front and the majority of mobility courses are situated within the Laguna Region.

**Kofa Region.** The Kofa Region is approximately 532 square miles in size, according to current YPG map records. The Kofa Firing Range, the largest artillery range in the United States, is located within this region. A licensed depleted uranium firing area is also located within the range, along with other types of impact areas. Kofa Firing Range terrain is essentially a flat basin surrounded by mountains, providing ideal isolated conditions for artillery firing. The East Arm of YPG is also located in the Kofa Region.

**Cibola Region.** The Cibola Region is approximately 693 square miles in size, according to current YPG map records. It includes the largest portion of YPG west of U.S. Highway 95. The outer boundaries include the westernmost border of YPG and the inner eastern border is adjacent to BLM and privately owned lands. The Cibola Region is primarily used by Air Combat & Soldiers' Systems Directorate for air cargo delivery and aircraft armament testing activities. Isolated mountainous areas are used for air-to-ground testing and training.

**Airspace.** This unit, covering more than 2,000 square miles, encompasses the airspace over the entire installation, over a large portion of the Kofa National Wildlife Refuge, and over portions of the land adjacent to the western boundary of the Cibola and Laguna regions. The airspace is used for special military purposes and is restricted.

The Navajo Army Depot and Prescott Airport, both in Arizona, are currently used for airspace activities (e.g., to test and evaluate military equipment [Combat Systems Tests] between 5,000-

7,000 feet), and have been used for other types of test missions as well (e.g., automotive and natural environment activities) (Gutierrez-Palmenberg, Inc. 2001).

Off-post Locations. These functional units include several areas outside YPG boundaries that are used to support a variety of military test missions. The only one of these locations that is actively maintained by YPG is the Blaisdell Railroad Siding. Off-post locations used by YPG are described below and shown are depicted in Figure 1-2.

- *Senator Wash Regulating Reservoir.* Senator Wash Regulating Reservoir is on the California side of the Colorado River and just upstream from the Imperial Dam; it is used under a U.S. Bureau of Reclamation special-use agreement to test and evaluate amphibious vehicles. The area is also used as a drop zone for training and evaluating personnel in airdrop skills and procedures.
- *Blaisdell Railroad Siding.* This area encompasses approximately 40 acres and is used for railroad shipping and receiving, and to evaluate equipment loads under different railway transport conditions (U.S. Army Yuma Proving Ground 1998).
- *Imperial Sand Dunes.* The Imperial Sand Dunes are a part of the California Desert Conservation Area managed by the BLM. Situated approximately 60 miles west of YPG, the area is used by YPG to support a variety of vehicle and equipment testing projects and for some troop training exercises.
- *Death Valley, California.* Areas of Death Valley are used periodically by YPG for automotive testing to take advantage of terrain features and temperature extremes that vary from those at YPG; it is approximately 400 miles northwest of YPG.
- *Oatman Hill, Arizona.* Oatman Hill is an 11-mile section of highway approximately 200 miles north of YPG. It is used under a special permit to conduct performance tests on trucks exceeding the maximum size and weight limits for public roads.

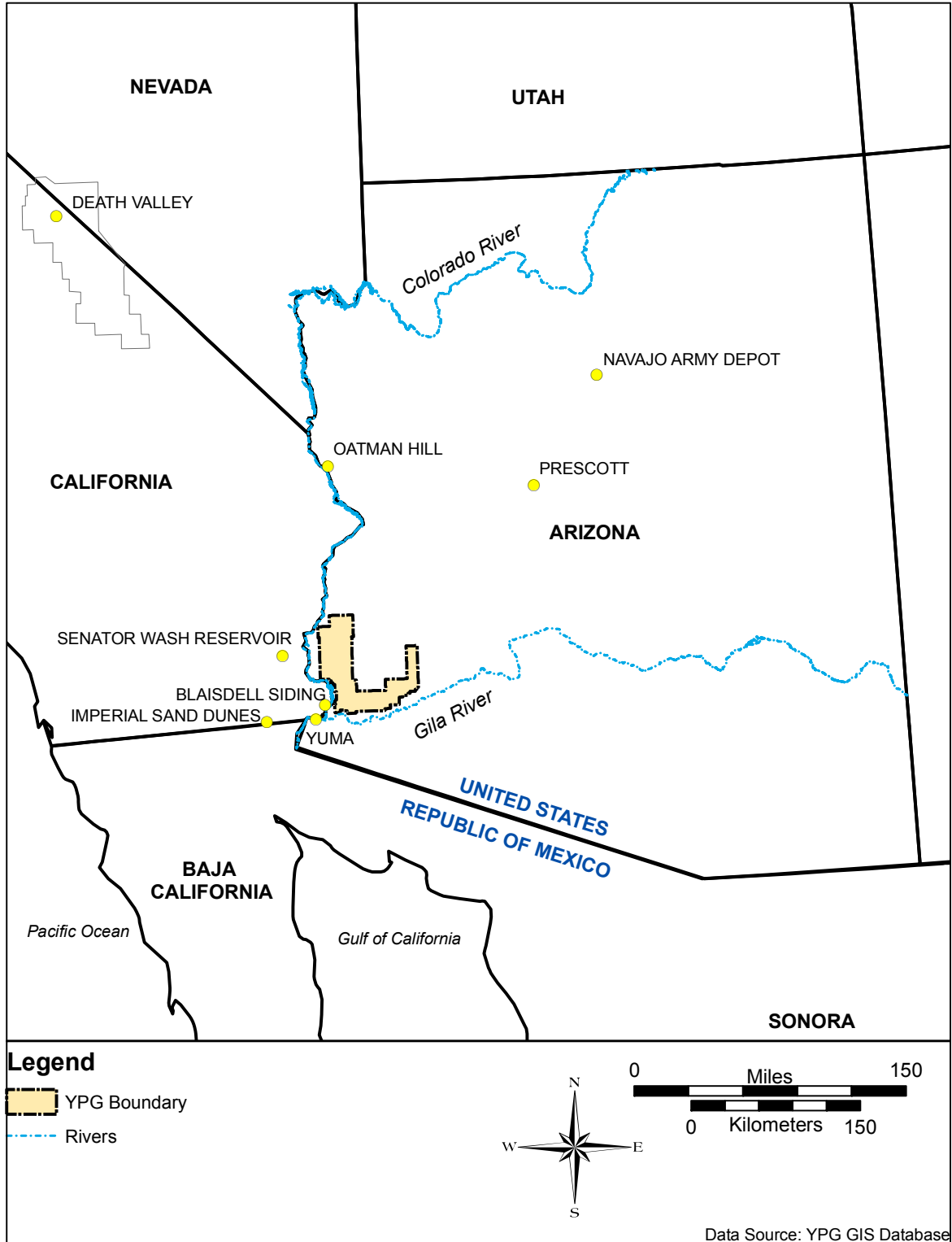


Figure 1-2. Off-Post Locations Used by U.S. Army Yuma Proving Ground

## 2. LEGISLATIVE AND REGULATORY REQUIREMENTS

This chapter summarizes the federal statutes, regulations, Executive Orders (EOs), and memoranda applicable to the management of historic properties and the operation of the YPG cultural resources program. This chapter is organized as follows: Section 2.1 summarizes the federal laws that pertain to cultural resources. Section 2.2 outlines the implementing regulations and guidelines. Section 2.3 summarizes EOs and Presidential Memoranda. U.S. Army regulations, protocols, and guidelines are presented in Section 2.4, and guidance specific to YPG is described in Sections 2.5 and 2.6. Additional discussions of legislation are contained within the various sections of the document where procedures for complying with legislative acts and regulations are discussed.

Federal legislation and regulations apply to the management of cultural resources on federal reservations, including military installations like YPG. Federal and Army regulations also apply to tenants (i.e., other federal agencies, contractors, and lessees) situated on real property under Army jurisdiction.

### 2.1 FEDERAL LEGISLATION

#### 2.1.1 National Historic Preservation Act, Public Law 89-665; 16 U.S. Code Section 470, as amended

The National Historic Preservation Act (NHPA) of 1966, as amended, is the primary federal statute that addresses the management of cultural resources. It establishes federal policy on historic preservation and provides the framework by which the national historic preservation program has been developed. Provisions of the NHPA most applicable to the Army historic preservation program include:

- *National Register of Historic Places.* The National Register of Historic Places (National Register) is the national inventory of historic places and the national repository of documentation on the variety of historic property types. The National Register process provides an avenue whereby historic properties of value on a national, state, or local level can be identified and nominated to the National Register.
- *State Historic Preservation Officers.* The NHPA provides for a State Historic Preservation Officer (SHPO) appointed by the governor to oversee each state historic preservation program and integrate it into the national program.
- *Advisory Council on Historic Preservation.* The Council was created to review federal actions concerning historic properties and to advise the President and Congress on historic preservation issues.
- *Regulations, standards, and guidelines.* This guidance is to be consulted by the Council and the Department of the Interior with respect to issues, regulations, standards, and guidelines related to provisions of the NHPA.

As defined under the NHPA (Section 301), a historic property refers to any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register, including artifacts, records, and material remains related to such a property or resource.

The primary responsibilities of federal agencies under the NHPA are contained in the following sections of the NHPA.

Section 106 requires federal agencies, prior to conducting activities classified as undertakings:

- To take into account the effects of undertakings on historic properties
- To allow the Council an opportunity to comment on undertakings that could affect historic properties

Section 110 affects all activities concerning historic properties under federal jurisdiction. It requires federal agencies to:

- Assume responsibility for, and undertake preservation of, historic properties under their jurisdiction
- Ensure that historic properties are adequately documented prior to engaging in alteration
- Designate a historic preservation officer for the agency
- Consider the preservation of historical and cultural values in the management of historic properties
- Exercise a high standard of care in the management of National Historic Landmarks (NHLs)
- Expend funds to carry out historic preservation responsibilities and, if appropriate, pass costs on to federal license and permit applicants
- Develop programs to identify, evaluate, and nominate historic properties to the National Register

Section 110 Guidelines were published in the Federal Register on 17 February 1988 (53FR4727-46).

Section 111 addresses the lease or exchange of historic properties, including stipulations for agreements to manage those properties. Federal agencies are directed to:

- Establish and implement alternatives for historic properties not needed by the agency for current or projected uses, including adaptive re-use
- Lease historic properties, as necessary, if the lease will adequately ensure the preservation of the historic property
- If desired, contract the management of historic properties following consultation with the Council to ensure adequate preservation of the properties

### **2.1.2 National Environmental Policy Act of 1969, as amended**

The National Environmental Policy Act (NEPA) requires decision makers to consider the environmental effects of their proposed programs, projects, and actions prior to initiation. Impact assessments under NEPA must consider effects on all types of cultural resources as well as any effects on Native American tribes, Native Hawaiian and Alaska Native organizations, or other ethnic and social communities to whom cultural resources may be important. The NEPA is implemented by 40 Code of Federal Regulations (CFR) Parts 1500 through 1508.

Revisions to 36 CFR 800, which implements Section 106 of the NHPA, amended the relationship between 36 CFR 800 and NEPA (36 CFR 800.8) in 2001. Briefly, the regulation allows agencies to use the NEPA process to comply with the Section 106 review process provided the agency notifies the SHPO or Tribal Historic Preservation Officer (THPO) in advance (see Section 2.2.1 and Appendix B).

### 2.1.3 Historic Sites Act of 1935

This Act establishes as national policy the preservation of historic resources for public use by giving the Secretary of the Interior the power to undertake historic surveys and to document, evaluate, acquire, and preserve archaeological and historic sites across the country. This act led to the eventual establishment within the National Park Service of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) division, as well as the NHL Program and the National Natural Landmarks Program.

### 2.1.4 Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act (AHPA) of 1974 provides for survey, recovery, preservation, and protection of scientific, prehistoric, historic, or archaeological data that may be irreparably lost as a result of any federal construction project or federally licensed project, activity, or program. The AHPA has been interpreted as providing protection for paleontological resources, which are included within the category of scientific data.

### 2.1.5 Archaeological Resources Protection Act, Public Law 96-95; 16 U.S. Code 470aa-470mm, as amended

Provisions of the Archaeological Resources Protection Act (ARPA), applicable to federal or Native American lands, set forth additional requirements beyond those of the NHPA. These include:

Establishing standards for permissible excavation, as validated through a permit process, and prohibiting unauthorized excavation by:

- Prescribing civil and criminal penalties for violations of the ARPA
- Requiring federal agencies to identify archaeological sites
- Encouraging cooperation between federal agencies and private individuals having collections of archaeological resources and data which were obtained before October 31, 1979

The ARPA defines archaeological resources as:

*...any material remains of past human life or activities which are of archaeological interest, as determined under uniform regulations promulgated pursuant to this chapter. Such regulations containing such determinations shall include, but not be limited to: pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. Nonfossilized and fossilized paleontological specimens, or any portion or piece thereof, shall not be considered archaeological resources, under the regulations under this paragraph, unless found in archaeological context. No item shall be treated as an archaeological resource under regulations under this paragraph unless such item is at least 100 years of age.*

### **2.1.6 Native American Graves Protection and Repatriation Act, Public Law 101-601; 25 U.S. Code 3001-3013**

The Native American Graves Protection and Repatriation Act (NAGPRA) requires consultation with appropriate Native groups (e.g., Native Americans, Alaska Natives, and Native Hawaiians) prior to excavation (either intentionally or through inadvertent discovery) of specified cultural items, comprising:

- *Human remains.*
- *Associated funerary objects.* Objects that are part of the death rite or ceremony of culture are reasonably believed to have been placed with individual human remains, where both the human remains and associated funerary objects are in the possession or under the control of a federal agency or museum
- *Unassociated funerary objects.* The same as associated funerary objects, except that the human remains are not in the possession or control of the federal agency or museum, and the objects can be identified by a preponderance of evidence
- *Sacred objects.* Specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents
- *Items of cultural patrimony.* Refers to objects having ongoing historical, traditional, or cultural importance central to the Native American tribe itself

In addition to consultation, the NAGPRA specifically requires federal agencies to inventory and repatriate Native American cultural items in their possession.

### **2.1.7 American Indian Religious Freedom Act, Public Law 95-341; 42 U.S. Code, 1996**

The American Indian Religious Freedom Act (AIRFA) establishes the rights of Native Americans to have access to sacred sites or sites of religious importance. The AIRFA defines a religious site as any place or area including, but not limited to, any geophysical or geographical area or feature:

- Sacred to Native American religion
- Where Native American practitioners are required by their religion to gather, harvest, or maintain natural substances or natural products for use during ceremonies, rituals, or for spiritual purposes and/or,
- Used by Native American religious practitioners for ceremonies, rituals, or other spiritual practices

A religious site may or may not contain physical remains, objects, or other elements that could identify it as an archaeological site. The AIRFA defines objects as specific items of use for religious practices that have spiritual or ritualistic importance. They may include sacred objects, non-sacred objects, and objects of cultural patrimony.

The AIRFA has no affirmative position on Native American consultation; however, the intent of the AIRFA (i.e., the identification of religious or sacred sites so that access can be allowed) can only be met through the consultation process.

### 2.1.8 Laws Pertaining to Historic Preservation and Access

Several laws govern accessibility to facilities, interpretive media, and federally assisted programs, including the Americans with Disabilities Act (ADA) of 1990 (42 U.S. Code 12101), Section 504 of the Rehabilitation Act of 1973 (29 USC 70 and implementing regulations of the Department of Health, Education, and Welfare; 45 CFR Parts 84, 85); and Public Law 90-480. These laws are pertinent to cultural resources management because of their applicability to the preservation and protection of historic buildings and their character-defining features.

## 2.2 FEDERAL REGULATIONS AND GUIDELINES

### 2.2.1 Protection of Historic and Cultural Properties; 36 Code of Federal Regulations Part 800, as amended 2004

The implementing regulations for Section 106 of the NHPA is provided in 36 CFR Part 800, Protection of Historic and Cultural Properties. The regulation defines the process by which conflicts between historic preservation goals and proposed activities are identified and establishes the steps for resolution of conflicts through consultation. In addition to detailed procedures regarding the Section 106 process, the regulation provides identification of the various participants in the process, both consulting parties and interested persons.

36 CFR Part 800 was revised by the Council in January 2001 and again in July 2004. The most recent revision (2004) was published in the Federal Register (69 FR 40544-40555) and is provided in Appendix B. In summary, the 2001 and 2004 regulatory changes include:

#### 2001 CHANGES

- Clarification of the role of SHPOs
- Clarification of the role of Indian tribes and THPOs
- Reinforcement of the importance of consultation between the federal agency and stakeholders, including Indian tribes
- More flexibility to involve applicants
- Clarification of undertakings covered by the Section 106 process
- Reinforcement of federal agency responsibilities in identifying historic properties
- Revision of the role of invited signatories
- Revision of the use of Environmental Impact Statements to comply with Section 106
- Redefinition of the role of Council when improving the operation of Section 106
- Modification of documentation standards
- Inclusion of National Register eligibility assessment in consideration of post-review discoveries
- Increased flexibility for programmatic agreements
- Improved consideration of stakeholder and public views on proposed exemptions
- More flexibility for federal agencies when consulting with Indian tribes on nationwide program alternatives

2004 CHANGES. (2004 changes were largely focused on court decisions which held that):

- The Council cannot require a federal agency to change its [past] determinations regarding whether its undertaking affected, or adversely affected, historic properties



- Section 106 does not apply to undertakings that are merely subject to state or local regulation administered pursuant to a delegation or approval by a federal agency
- Clarifies an issue regarding the time period for objections to ‘No Adverse Effect’ findings and establishes that the council can propose an exemption to the Section 106 process on its own initiative, rather than needing a federal agency to make such a proposal

### **2.2.2 National Register of Historic Places; 36 Code of Federal Regulations Part 60**

The process by which properties are added to, or removed from, the National Register is provided in 36 CFR Part 60, National Register of Historic Places. Of critical importance to the Army’s cultural resources program is Part 60.4, which provides the National Register criteria for evaluation. These criteria state that the quality of significance is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history.

### **2.2.3 The Section 110 Guidelines: Annotated Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act**

These guidelines were developed by the Secretary of the Interior and the Council to assist federal agencies in establishing, monitoring, reviewing, and evaluating their programs for compliance with Section 110 of the NHPA. The overall purpose of the guidelines is to ensure the integration of historic preservation responsibilities into each federal agency’s plans and programs. Step-by-step guidance is provided for implementation of each subsection of Section 110. Of greatest importance to this ICRMP are the following guidelines (followed by reference to the pertinent subsection):

- Examples of various effective uses of historic properties (a)(1)
- Considerations for the management of historic properties, including, but not limited to, level and area of significance, kinds of value, integrity, condition, costs to maintain, and existing use or potential reuse (a)(1)
- Establishment of a program to locate, inventory, and nominate all properties that appear to qualify for inclusion in the National Register (a)(2)
- Avoidance of damage to historic properties through deterioration, demolition, alteration, transfer, or related actions (a)(2)
- Appropriate documentation of historic properties subject to alteration or demolition, and proper distribution of that documentation (b)

- Designation of a federal preservation officer, including recommended qualifications (c)
- Recommendations for the procurement of funds to accomplish historic preservation activities (g)

#### **2.2.4 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48FR44716-39, 29 September 1983)**

These Standards and Guidelines provide technical advice for the accomplishment of archaeological and historic preservation activities and methods. They are not regulatory, nor are they meant to establish agency policy. Each section is organized into three parts: standards, guidelines, and technical sources. Information is published on the following topics:

*Preservation Planning.* This section describes the relationship between the key elements of preservation activities—identification, evaluation, registration, and treatment of historic properties. One of the most detailed discussions within this section is the development of historic contexts.

*Identification.* These standards and guidelines are designed to assist in the gathering of information on historic properties. Specific procedures are provided for the development of a research design, conducting archival research, performing the field survey, and reporting results of these efforts.

*Evaluation.* This section provides guidance on determining whether resources identified meet the criteria of significance, including the process under which the criteria are applied, and how a historic property inventory is prepared.

*Registration.* The standards and guidelines for registration provide procedures for and purpose of registration programs. The types of documentation that should be included in the process are also discussed.

*Historical Documentation.* This is the first of three sets of documentation standards. In general, documentation encompasses a wide variety of treatment options designed to preserve or protect properties or to document their historic values and information. Historical documentation provides information related to the significance of a given property to many historic preservation specialists (e.g., historians, architects, archaeologists). It can be used early in the planning process to assist with identification and evaluation activities, or as part of a complete treatment plan to be applied to significant properties. Critical to effective historical documentation is the development of a sound research design with specific objectives and carefully selected research methods.

*Architectural and Engineering Documentation.* These standards and guidelines address the documentation of historic buildings, sites, structures, and objects. This generally includes measured drawings, photographs, and textual information. Within the guidelines are specific procedures for the development of Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER documentation).

*Archaeological Documentation.* Like the previously discussed standards for documentation, archaeological documentation can be appropriate at any time during the historic preservation process. Activities can include archival research, observation, and recording of both above-

ground and below-ground resources. Objectives and methods must be carefully defined and are most often contained within a research design. Curation of materials and records recovered during the project and the reporting of results of the investigation complete the archaeological documentation process.

*Historic Preservation Projects.* Eight general standards, and associated specific standards, are provided for the treatment of historic properties. Topics discussed include acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction. The guidelines provide extremely detailed procedures for the effective implementation of the above treatment options.

*Professional Qualification Standards.* These qualifications were originally published as Appendix A to 36 CFR Part 61, but have been revised and published on 20 June 1997 in Volume 62, Number 119 of the Federal Register (Appendix C). These standards define the minimum education and experience required to perform the historic preservation activities addressed within the Secretary of the Interior's Standards and Guidelines.

### **2.2.5 Protection of Archaeological Resources; 43 Code of Federal Regulations Part 7**

Protection of Archaeological Resources provides regulations implementing the ARPA. Identical versions of Subpart A, Uniform Regulations, were issued as 32 CFR Part 229 for DOD. Among the procedures provided are those related to:

- Permit requirements, exceptions, and application process
- Custody of archaeological resources removed from federal lands
- Assessment of damages and civil penalties for ARPA violations
- Confidentiality of information regarding the location and nature of archaeological resources

### **2.2.6 Department of the Interior, Curation of Federally Owned and Administered Archaeological Collections; 36 Code of Federal Regulations Part 79**

This regulation requires that staff and consultants responsible for the curation, management and preservation of archaeological collections be qualified museum professionals. Items should be handled, stored, cleaned, and conserved in an appropriate manner; if items are exhibited, the collection shall be exhibited in a manner appropriate to the nature of the material remains and associated records, protected from breakage and/or deterioration, and preserved so that it may be studied in future laboratory analyses. Site forms, field notes, artifact inventory lists, computer disks and tapes, catalog forms, and a copy of the final report shall also be curated in a manner as to protect them from theft, fire, or other damage. Collections should be periodically inspected and monitored for damage and deterioration, as well as inventoried to verify the location of material remains, associated records, and other federal personal property that is furnished to the repository in accordance with Section 79.11. Access to the collection for scientific, educational, and religious purposes shall also be provided in accordance with Section 79.10.

### **2.2.7 Eagle Permits, Permits for Indian Religious Purposes; 50 Code of Federal Regulations Part 22.22**

This regulation permits the possession, taking, and transportation of golden and/or bald eagles, or their parts, eggs, or nests for religious use by Native American religious ceremonial or cultural activities. This regulation requires individuals to submit a completed application form to the Department of the Interior providing the basic information, such as name and address, certification from the Bureau of Indian Affairs (BIA) showing Native American heritage, and certification from an authorized official of the religious group performing bona fide tribal religious ceremonial or cultural activities.

For the preservation of bald and golden eagles, the Secretary of the Interior may permit or deny the possession, taking, or transportation of specimens for agricultural or scientific societies, exhibition by public museums or zoological parks, or religious purposes of Native American tribes.

### **2.2.8 National Historic Landmarks Program; 36 Code of Federal Regulations Part 65**

National Historic Landmarks (NHLs) are a special category of historic property so designated by the Secretary of the Interior because of their national importance in American history, architecture, archaeology, engineering, or culture. Section 800.10 of the Council's implementing regulations for the NHPA (36 CFR Part 800) and Section 110(f) of the NHPA specify special protection for NHLs.

### **2.2.9 National Natural Landmarks Program; 36 Code of Federal Regulations Part 62**

The National Natural Landmarks Program was established in 1962 under the authority of the Historic Sites Act of 1935. A National Natural Landmark is a nationally significant natural area that has been designated by the Secretary of the Interior. To be nationally significant a site must be one of the best examples of a type of biotic community or geologic feature in its physiographic province. Examples of the natural diversity include terrestrial and aquatic ecosystems, features, exposures, and land forms that record active geologic processes as well as fossil evidence of biological evolution. The goal of the National Natural Landmarks Program is to identify, recognize, and encourage the protection of sites containing the best examples of geological and ecological components of the nations' landscape.

## **2.3 EXECUTIVE ORDERS AND PRESIDENTIAL MEMORANDA**

### **2.3.1 Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971**

EO 11593 directs federal agencies to provide leadership in preserving, restoring, and maintaining the historic and cultural environment of the Nation, to ensure the preservation of cultural resources; to locate, inventory, and nominate to the National Register all properties under their control that meet the criteria for nomination; and to ensure that cultural resources are not inadvertently damaged, destroyed, or transferred before the completion of inventories and evaluations for the National Register. The intent of EO 11593 was integrated into NHPA, Section 110 through the 1980 amendments to the statute.

### **2.3.2 Executive Order 13007, Indian Sacred Sites, 24 May 1996**

EO 13007 directs that access to Native American sacred sites for ceremonial use by Native American religious practitioners be accommodated on federal lands. It also directs that the physical integrity of sacred sites be protected and that the confidentiality of these sites be maintained. It further directs that procedures be implemented or proposed to facilitate consultation with appropriate Native American tribes and religious leaders.

### **2.3.3 Memorandum for Heads of Executive Departments and Agencies, 29 April 1994: Government-to-Government Relations with Native American Tribal Governments**

This memorandum calls for consultation between federal agencies and federally recognized Native American tribes on a government-to-government basis. The designated tribal representative will be treated as the representative of a government. Consultation shall occur formally and directly between the head of the federal agency and the tribal leader.

### **2.3.4 Memorandum for Heads of Executive Departments and Agencies, dated 29 April 1994: Policy Concerning Distribution of Eagle Feathers for Native American Religious Purposes**

The religious practices of Native Americans are protected by AIRFA. Native Americans are also permitted the use of eagle feathers for religious, ceremonial, or cultural activities by 50 CFR Part 22.22. This memorandum requires Installation Commanders to collect and transfer eagle body parts and carcasses for use in Native American religious activities. Any carcasses considered salvageable should be shipped to the U.S. Fish and Wildlife Service, Forensic Laboratory.

## **2.4 U.S. ARMY REGULATIONS, PROTOCOLS, AND GUIDELINES**

The primary Army Regulation (AR) governing the management of cultural resources is AR 200-1, Environmental Protection and Enhancement, established December 13, 2007. It supersedes the authority of AR 200-4, Cultural Resources Management, and the accompanying pamphlet, DA-PAM 200-4. These and related regulations are summarized in this subsection in numerical order.

### **2.4.1 Army Regulation 200-1, Environmental Protection and Enhancement (13 December 2007)**

Army Regulation AR 200-1 prescribes Army responsibilities, policies, and procedures to preserve, protect, and restore the quality of the environment, including cultural resources. Chapter 6 of AR 200-1 specifies that Army policy is to “ensure that installations make informed decisions regarding the cultural resources under their control in compliance with public laws, in support of the military mission, and consistent with sound principles of cultural resources management.” The major program requirements under AR 200-1 identify specific actions to be taken to comply with the NHPA, AIRFA, Executive Orders 13007 and 13175, NAGPRA, ARPA and AHPA. The specific tasks and requirements are included in this ICRMP as Appendix A.

### **2.4.2 Army Regulation 210-20, Real Property Master Planning for Army Installations (16 June 2005)**

Army Regulation AR 210-20 describes the real property master planning processes, especially those pertaining to the development of the Real Property Master Plan (RPMP). The RPMP is based on installation mission and guidance from related planning documents and provides direction for the development of the installation. Among the desired results of RPMP implementation is the identification, protection, and enhancement of natural, cultural, and environmental resources while supporting mission requirements; identification of environmental compliance issues and environmental consequences of action; and demonstrating good stewardship of the environment. The considerations associated with these goals include: (1) the assessment of real property master planning in compliance with NEPA, and (2) incorporation of environmental (including historic preservation) reports and plans as supporting documentation to the real property master planning process.

The specific application of AR 210-20 to cultural resources management includes the development of a cultural resources baseline analysis. This presentation provides input to the discussion of environmental concerns and constraints to development, as well as the identification of information gaps to be filled through surveys and studies. An overlay graphically depicts the environmental conditions specified in the narrative. An environmental analysis of effects resulting from implementation of the Capital Investment Strategy (CIS) on cultural resources (and other areas as applicable) is designed to assess future impacts early in the planning process. Environmental documentation in support of all components of the RPMP is usually generated on a programmatic level. Among the sources of supporting information to the RPMP listed in AR 210-20 are the Integrated Cultural Resources Management Plan and other management plans.

### **2.4.3 Army Regulation 405-80, Management of Title and Granting Use of Real Property (10 October 1997)**

Army Regulation AR 405-80 describes procedures for making military real estate under the control of the Army available to other agencies, groups, and individuals. Specific guidelines for leases of Army lands and real property are also provided. Surveys are conducted to determine any surplus lands available, designating them excess and underused. Use by others will not be authorized by the Army if it conflicts with provisions of environmental policies and legislation, including NEPA and the NHPA. An environmental analysis is conducted to document the environmental consequences of the proposed outgrant; the analysis is incorporated into a Determination of Availability submitted to the appropriate authorities for approval prior to granting use. Other information pertinent to cultural resources in the Determination of Availability include statements regarding the inclusion of the property in the National Register and consideration given to requirements of the NHPA. Provisions are also set forth in AR 405-80 to allow, with the approval of the Secretary of the Army, the examination of archaeological ruins, the excavation of archaeological sites, and the collection of objects of antiquity on Army lands by qualified institutions. An ARPA permit may also be required.

#### **2.4.4 Army Regulation 405-90, Disposal of Real Estate (10 May 1985)**

Procedures for the disposal of military real estate are contained in AR 405-90. Among the procedures provided are:

- Preparing recommendations to excess real property
- Disposing of non-excess property and the acquisition of replacement land, construction, or facilities
- Disposal of property by the General Services Administration (GSA)
- Return of withdrawn public domain lands, as appropriate
- Disposal of property by the Department of the Army (DA)

Special considerations stipulated in AR 405-90 include compliance with environmental, historical, and cultural protection requirements. Among additional requirements for disposal of property that contains historical or cultural resources are: (1) Headquarters, Department of the Army (HQDA) approval of DA Form 337 (Request for Approval of Disposal of Buildings and Improvements) for historic sites or properties.

#### **2.4.5 Army Regulation 415-15, Army Military Construction and Nonappropriated-Funded Construction Program Development and Execution (12 June 2006)**

This regulation defines procedures associated with U.S. Army military construction and repair, with emphasis on the programming and execution phases. Military construction is considered a single undertaking, which may include:

- The erection, installation, or assembly of a new facility
- The addition, expansion, extension, alteration, relocation, or replacement of an existing facility
- Site preparation, excavation, filling, landscaping, land improvements, utility connections, and installed equipment
- Related real property requirements

These activities have the potential to adversely affect historic properties either through ground disturbance, modification of historic buildings or structures, or alteration of the visual integrity of a given site or district. Preparation and submittal of environmental documentation that addresses possible effects is conducted as part of the pre-design activities. Compliance with the NHPA requirements is specifically discussed in Appendix C, section 4, Preservation of historic properties and archaeological sites. The appropriate treatment of archaeological sites contained within a proposed project area focuses upon (1) advance planning to conduct the appropriate investigations early in the project, and (2) protecting previously unknown archaeological finds until required clearances are obtained.

### **2.5 YUMA PROVING GROUND LEASES AND LAND USE AGREEMENTS**

The only leased lands on YPG are primarily small parcels scattered across the installation and leased to local and regional utility companies (e.g., for cable television towers, transmitter and receiver stations, telephone modules) but also include the General Motors Desert Proving Ground Enhanced Use Lease (EUL) area (approximately 2,400 acres), and privatized Army lodging and family housing on the Main Post (approximately 100 acres). Individuals or organizations leasing the property are responsible for maintaining the land and keeping it free of

litter and contamination. If improvements are required, the lessee must contact YPG, beginning with the Real Property Office, obtain a digging permit (as required), and clear the activity through the YPG Environmental Sciences Division. In addition, YPG maintains land use and special use agreements for the conduct of YPG activities at several off-post locations (see Figure 1-2 and Section 1.2.3).

Currently, all YPG supported components are federal organizations (see Section 3.1.3) that operate under inter-service support agreements rather than leases. As with the utility companies, the supported components are responsible for maintaining the land and keeping it clean and free of contamination. As with the utility leased areas, parcel improvements require coordination with YPG, completion of a digging permit (as required), and clearance from the YPG Environmental Sciences Division.

Due to changing DOD budgets, there is always some potential for the future need to reduce operating costs at YPG. This may be accomplished through a variety of public, private, and federal partnerships (i.e., privatization). These partnerships could include the outgranting of property for construction and operation of non-Army facilities and activities; long- or short-term leasing of YPG facilities (e.g., family housing); easements; or other transactions that authorize nonfederal entities to use property at YPG. Although YPG would likely maintain control of these properties (land or facilities), interim or long-term transfer (or sale) could potentially affect archaeological or historical properties. In the event privatization is undertaken at some future time, the guidance within this ICRMP would govern activities within the identified areas until such time as formal transfer out of federal ownership is completed. A PA among affected parties (e.g., YPG, Arizona SHPO, lessee), which includes preservation covenants for the protection of any historic properties identified within the identified parcels, may also be required. At a minimum, development of these agreements would be accomplished in coordination with the Garrison Manager, the Command Judge Advocate (CJA), the Public Works Director and Real Property Officer, and the Cultural Resources Manager.

## **2.6 OTHER GUIDANCE APPLICABLE TO YUMA PROVING GROUND**

In addition to the directives and guidance discussed above, several other agreements pertain to cultural resources management activities at YPG, including Program Comments issued by the Advisory Council on Historic Preservation and other requirements specific to YPG. In addition, YPG is currently negotiating a Programmatic Agreement with the Arizona State Historic Preservation Office to replace the Jefferson Proving Ground Base Realignment and Closure (BRAC) Memorandum of Agreement of 1992. These are described below.

### **2.6.1 Program Comments: Unaccompanied Personnel Housing, Ammunition Storage Facilities, and Army Ammunition Production Facilities and Plant**

In response to the large number of Department of Defense buildings that are or will soon reach 50 years of age, the Advisory Council has issued several Program Comments that addresses the Department of Defense's NHPA compliance requirements for World War II and Cold War Era properties. These Program Comments cover Cold War Era (1946-1974) Unaccompanied Personnel Housing, World War II and Cold War (1939-1974) Ammunition Storage Facilities, and, World War II and Cold War (1939-1974) Army Ammunition Production Facilities and Plants. These Program Comments cover:



- All Army-owned facilities designed and built as Unaccompanied Personnel Housing (UPH) between 1946 and 1974, regardless of current use (Goodwin and Associates 2007). This includes all properties beginning with Army Real Property Category Code “72,” either in their current usage or their design code, with the exception of Army Lodging facilities (Category Code 72010), unless they were originally built as Unaccompanied Personnel Housing.
- All Army-owned facilities designed and built as Ammunition Storage Facilities between 1939 and 1974, regardless of current use. This includes all properties beginning with Army Real Property Category Code “42,” either in their current usage or their design code.
- All Army-owned facilities designed and built as Ammunition Production Facilities, which includes all properties beginning with Army Real Property Category Code “226.” In addition, all Army-owned properties, regardless of category code, built between 1939 and 1974 on current Army Ammunition Plants are covered.

Management actions covered by the Program Comments are ongoing operations, maintenance and repair; rehabilitation; renovation; mothballing; cessation of maintenance, new construction, demolition; deconstruction and salvage; remediation activities; and transfer, sale, lease, and closure of such facilities. Installations have no further requirements to identify, evaluate, treat, mitigate or consult with their State Historic Preservation Offices (SHPO) regarding any Cold War Era (1946-74) UPH, World War II and Cold War Era (1939-74) ammunition storage facilities, and World War II and Cold War Era (1939-74) Army ammunition production facilities and Plants. With the publication of the Department of Defense’s Notice of Adoption, installations may proceed with actions affecting these properties without further NHPA Section 106 compliance responsibilities.

### **2.6.2 Program Comment: Capehart and Wherry Era (1949-1962) Army Family Housing**

On May 31, 2002, the Advisory Council on Historic Preservation (ACHP) approved the National Historic Preservation Act (NHPA) Program Comments for all Capehart and Wherry Era (1949-62) Housing, Associated Structures, and Landscape Features, which the Army had requested. The text of this Program Comment is provided in Appendix D.

The Program Comment provides a one-time, Army-wide NHPA compliance action for all Capehart and Wherry Era housing for the following management actions: maintenance and repair; rehabilitation; layaway and mothballing; renovation; demolition; and transfer, sale, or lease from Federal ownership.

The Program Comment allows privatization to proceed without further NHPA compliance for the entire class of properties. Additionally, it allows installations to proceed with renovation, or demolition of Capehart-Wherry era housing without any further project-by-project NHPA Section 106 review. The Program Comment mitigation includes issuance of an historic context and Neighborhood Design Guidelines (completed in 2003), and video documentation (see <http://aec.army.mil/usaec/cultural/housing.html>). The sole obligation that remains for installations is to consider the Neighborhood Design Guidelines when conducting actions that will affect Capehart-Wherry housing and to document that consideration in an appropriate place, such as NEPA documentation.

### 2.6.3 Programmatic Agreement

Yuma Proving Ground is currently preparing a Programmatic Agreement to replace the 1992 MOA between the Army, the Council, and the Arizona SHPO regarding the realignment of certain activities from the Jefferson Proving Ground, Indiana, to YPG. Two remaining stipulations of the Jefferson Proving Ground MOA will continue to be used until the new PA is implemented. These stipulations state:

*Undertakings whose effects will occur entirely within the impact areas [shown on Figure 2-1] may be surveyed at a lower level of intensity than would otherwise be appropriate, or may not be surveyed at all, to avoid undue danger of injury to survey personnel by contact with unexploded ordnance or toxic substances. Any such modification in survey methodology shall result from the successful interaction of the Army and the SHPO. The areas of potential effects of such undertakings within impact areas will be subject to inspection and review only to the extent agreed upon by YPG and the SHPO. Agreement may be reached by telephone and confirmed within ten work days through correspondence from the Army to the SHPO.*

*Undertakings whose effects will occur entirely within the boundaries of the main post housing area (as indicated on Attachment 1), which has been completely disturbed by prior construction and land use activities, and whose structures were all constructed after 1954 and are therefore categorically ineligible for inclusion in the National Register, are understood to have so little potential to affect historic properties that they require no review by the SHPO or Council, subject to the requirements of Stipulation IX.*

### 2.6.4 Unauthorized Excavations

Excavation, whether manual or by machine, is prohibited on YPG except at such times, locations, and for such purposes as the Garrison Manager, or his designee, may authorize in writing in accordance with law. Violators will be directed to stop the activity and refusal shall result in referral to the County Sheriff for trespassing and/or to the Garrison Manager for consideration of barrment. Situations involving damage to archaeological sites or other known Federal criminal offenses will be referred to the proper enforcement agency via the U.S. Army Criminal Investigation Command.

### 2.6.5 Yuma Proving Ground Dig Permit

Yuma Proving Ground uses an on-line process for requesting and completing a Dig Permit and Record of Environmental Consideration (REC). Final approval for digging of any nature on the installation is authorized by the Director of Public Works after approvals are granted from various organizations, including the Cultural Resources Manager or Archaeologist and other Environmental Sciences Division personnel. A sample YPG Dig Permit is illustrated in Appendix E.

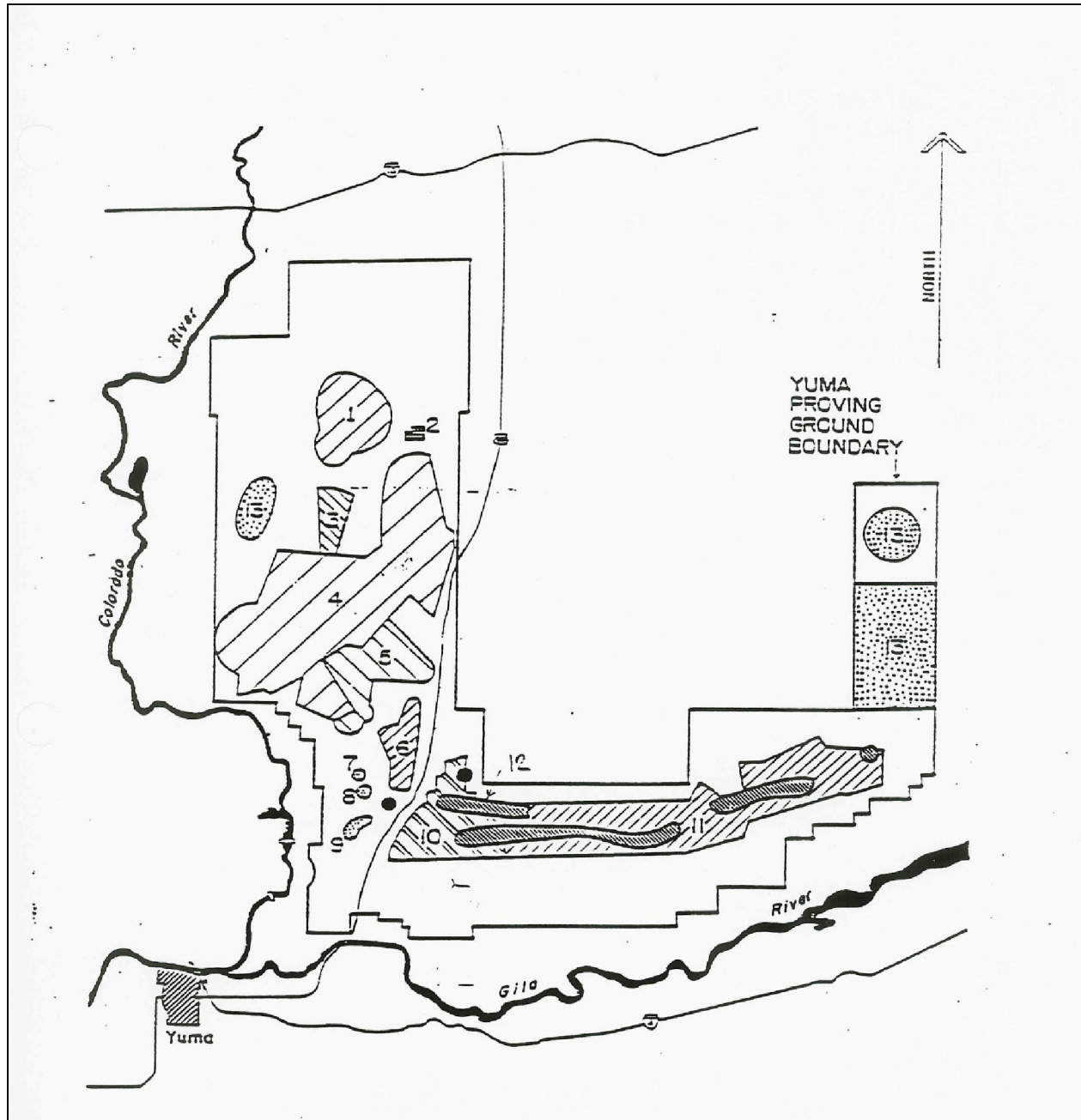


Figure 2-1. Archaeological Survey/Undertaking Exemption Areas<sup>1</sup>

<sup>1</sup> Source: BRAC Memorandum of Agreement 1992. Numbers and shadings reflect the various types of contamination (artillery shells, rockets, etc). Detailed maps were provided to the Arizona SHPO in 1992

### **2.6.6 Yuma Proving Ground Native American Access Procedures**

Because of the potential that unexploded ordnance is present within YPG, access to many areas of the installation requires coordination with YPG and permission from YPG Range Control and Security offices. Written guidance for access to YPG is based on YPG Standard Operating Procedure (SOP) YP-YTRO-P 1000 and AR 385-63, both of which pertain to general range control precautions and personnel safety. This guidance has been applied to Native American access as well, in particular for access to the White Tanks Management Area. Access is coordinated through the Cultural Resources Manager in consultation with YPG Range Control, the Garrison Manager, and the Public Affairs Officer. General guidance and a copy of a sample participant agreement for access are provided in Appendix F. Copies of YPG SOP YP-YTRO-P-1000 and AR 385-63 can be obtained from the Cultural Resources Manager.

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### **3. PLANNING LEVEL SURVEY**

Chapter 3 provides background information useful to understanding the cultural resources environment of YPG. It briefly describes past and present missions of YPG; outlines the environmental setting of the installation; presents the results of past archaeological and historical investigations; lists the local and regional Native American tribes and agencies having interest in YPG's cultural resources; and discusses the kinds and distribution of cultural resources found on the installation. In addition, this section summarizes prehistoric and historic contexts with which installation cultural resources are associated.

This planning level survey is based on a literature review (both historic and recently prepared documents), archaeological site and map file searches, photograph reviews, interviews with individuals knowledgeable of the resources within the region, and site visits to YPG. This element of the text is not intended to be a comprehensive discussion of the prehistory and history of YPG; rather, it is provided as a brief baseline from which readers and/or users of the document can associate cultural materials identified at the installation. For additional detail, readers are referred to the large body of literature cited within the document and/or found in the references to this document.

#### **3.1 MISSIONS, CAPABILITIES, AND FACILITIES**

##### **3.1.1 Past Missions**

Yuma Proving Ground is a general-purpose facility that has supported a variety of personnel training and weapons systems testing activities for more than 50 years. Past missions have included World War II testing of floating river bridge equipment; desert training (primarily small unit maneuvers) for thousands of World War II soldiers; World War II and post-World War II ordnance training; World War II pilot, radio operator, and aerial gunner training; a variety of equipment and personnel training during the Korean and Vietnam wars; the testing of specialized military ground equipment during the Persian Gulf War; and testing of a variety of emerging technologies and equipment to support the post-9-11 environment. A number of tests undertaken since 2001 have directly benefited troops in Afghanistan and Iraq. These include tests of the Stryker armored vehicle, a new parachute system that will replace the standard military personnel parachute that has been in use for over 50 years, development and use of the Hardened Sub-Miniature Telemetry Sensor System (HSTSS), and development of methods and systems to locate improvised explosive devices (IEDs).

Today, YPG is in the forefront of making sure the Army's weapon systems and munitions are truly ready to do whatever job is necessary in the 21st century (information in this section is provided in <http://www.yuma.army.mil>, accessed February 2010).

##### **3.1.2 Capabilities**

As a multi-purpose test facility, Yuma Proving Ground is able to test nearly every weapon system in the ground combat arsenal. The installation is one of the few places where military munitions and hardware can be tested in an area almost completely removed from urban encroachment and noise concerns. The sunny climate, terrain, and excellent range facilities add up to almost perfect testing and training conditions. In 2011, YPG's services include:

- Prototype combat vehicle and field artillery testing
- Testing of all types of military hardware, from tents to tanks
- Testing of developmental Army aircraft and aircraft weapon systems
- Joint testing with the Air Force and Navy of position location systems
- Testing of personnel and cargo air delivery systems
- Smart weapon testing
- National Counterterrorism Counterinsurgency Integrated Testing and Evaluation Center
- Management of Army desert, tropical, and cold weather environmental testing
- Frequent specialized testing for friendly nations around the globe
- Home of the world's most advanced mine, countermine, and demolitions test facility
- Army production acceptance, munitions testing

Test capabilities include:

- Ground weapons systems, from small arms to long range artillery
- Air weapons testing and scoring systems
- Helicopter armament and target acquisition systems
- Artillery and tank munitions testing and target scoring at the Tank Accuracy Range
- Cargo and personnel parachutes, including guided systems technologies
- Mine, countermine, demolitions, and advanced mine testing
- Tracked and wheeled vehicles in a desert environment
- Vibration-free, interference-free tests of smart weapon systems at the Smart Weapons Test Complex
- Laguna Army Airfield complex, featuring two runways – one 6,000 feet and the other 6,118 feet in length
- Nuclear Regulatory Commission license for firing depleted uranium ammunition for direct fire weapons at multiple ranges

### **3.1.3 Facilities**

The Cibola Range is a fully instrumented air-to-ground aircraft armament test range with electronic and optical instrumentation, including six precision aircraft tracking systems, tracking radars, and video scoring. The range has six sites from which the position of missile-firing aircraft can be established and trajectories measured. Capabilities include a state-of-the-art cargo preparation complex, a smart weapons test range, and the National Counterterrorism Counterinsurgency Integrated Test and Evaluation Center.

The Artillery Firing Range/Kofa Range is the largest artillery range in the United States. The range maintains more than 400 firing positions with artillery, tank, and mortar direct and indirect firing capabilities. Field training exercises are periodically conducted in the southeast Kofa Range and Special Forces units train in other areas of the range to take advantage of unique terrain features.

The Mine, Countermine and Demolitions Complex contains premier mine test facilities with highly instrumented ranges, including both open field and closed chamber test capabilities.

The Air Cargo Preparation Complex is a state-of-the-art complex specifically geared toward the support of air delivery missions. The complex includes a parachute pack/maintenance and air drop rigging facility.

The Automatic Weapons and Ammunition Test Ranges provide up to 4,500 meters of direct fire at large variable obliquity armor, cloth, and aluminum-plate targets. The range has horizontal impact areas up to 500 square meters and sod, diced earth, mud, sand, and macadam fuze graze function targets. Movable firing positions provide complete facilities for test operations, instrumentation, and ammunition conditioning. Any degree of elevation is permitted to ranges of 10,000 meters.

The Moving Target Range features a remote-controlled, rail-mounted target carrier with speeds up to 30 miles per hour for testing ground vehicle-mounted direct-fire weapons at ranges to 3,000 meters, and aircraft weapons systems and slant ranges to 5,000 meters.

The Vehicle Performance Measurement Facilities in the Laguna Test Area are eight special test courses over natural desert terrain, prepared test slopes and obstacles, a 2-mile paved oval course, water spray simulation, vehicle swimming basins, a mud basin, and extensive instrumentation for testing wheeled and tracked vehicles, components, fuels, and lubricants.

The Climate Simulation Facilities comprise seven environmental chambers for high and low temperatures, humidity, altitude, and salt fog.

The Realtime Data Acquisition System Field Instrumentation consists of six laser trackers, two radars, three meteorological towers, and a position locating system.

The Tank Accuracy Range (Kofa Gun Position 20) features acoustic target scoring for firing on the move, the aided laser tracking system, vibration test systems, a dynamometer test system, an acoustic measuring system, flash X-ray units, and a 32/77 Multi-stream Super Mini-computer.

### 3.1.4 Specific Tests

About 100 specialized tests take place at YPG at any one time. Examples of equipment tested include (Headquarters Army Test and Evaluation Command 2005):

- Non-Line-of-Sight Cannon, the most advanced piece of the Army's Future Combat Systems program
- The Counter - Rocket, Artillery & Mortar system that has been deployed to combat areas overseas to defeat incoming enemy projectiles
- Sense and Destroy Armor artillery projectile
- AH-64D Longbow Apache helicopter (Figure 3-1)
- RAH-66 Comanche helicopter
- M-1A2 Abrams tank and the Bradley Fighting Vehicle

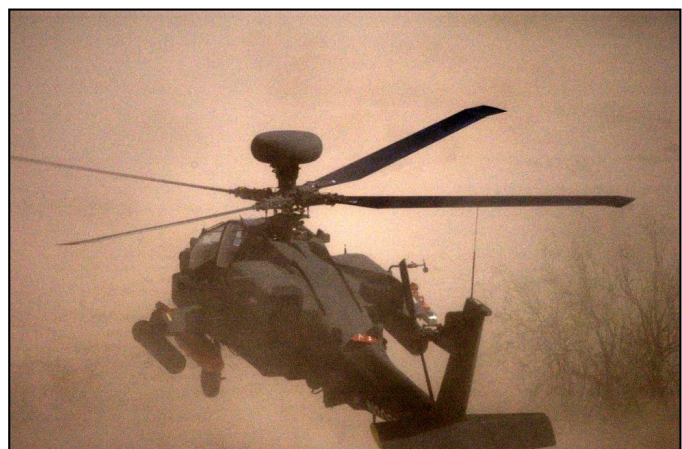


Figure 3-1. AH-64D Apache Longbow Performing Dust Test



- NASA recovery parachute for X-38 spacecraft
- Mine and Countermine clearing systems (Figure 3-2)
- Airdrop operations (Figure 3-3)
- Extended range artillery and tank munitions
- Hellfire, Stinger, Maverick and Brimstone missiles fired from helicopters
- Palletized Loading System and Family of Medium Tactical Vehicles
- Advanced precision-kill weapons system and common missile system
- Stryker Combat Vehicle (Figure 3-4)
- Advanced Tactical Parachute System
- M777, a 155 mm lightweight howitzer
- Dragon Fire heavy automated mortar for USMC
- XM982 Excalibur 155 mm precision-guided artillery projectile
- Army and Navy Unmanned Aerial Systems
- Electronic Counter Measure Devices
- Multiple cargo and personnel parachute systems



Figure 3-2. Mongoose Mine Clearing System



Figure 3-3. Qualification Airdrop Testing



Figure 3-4. Stryker Team

As it meets the challenges of the 21st century, YPG will play a vital role in partnering with other government agencies, private industry and academic organizations to enhance the technical excellence and high quality of America's military arsenal.

### 3.1.5 2011 Yuma Proving Ground Supported Components and their Missions

2011 YPG supported components and missions include:

- The U.S. Army Health Clinic provides comprehensive health care services to active-duty soldiers and retirees and their dependents.
- MCAS Yuma provides dental services and oral health care to eligible personnel at YPG.
- U.S. Army Veterinary Clinic provides animal health services to active duty and military retired personnel who reside at YPG, Marine Corp Air Station (MCAS) Yuma, and Naval Air Station El Centro. The services are also extended to government agencies, such as physicals for Yuma Border Patrol canines.
- Army and Air Force Exchange Service (AAFES), the Shoppette and Commissary, provides merchandise and services to YPG active duty, reserve, and military retirees and their families, and eligible DoD civilians residing on post.
- Civilian Personnel Advisory Center is responsible for developing, promoting, and monitoring civilian personnel policies to meet the needs of management, supervisors, and the workforce of Yuma Proving Ground.
- Yuma Test Measurement and Diagnostic Equipment Support Laboratory provides calibration and repair service for YPG's instrumentation.
- The Military Freefall School is part of the John F. Kennedy Special Warfare Center at Fort Bragg, North Carolina. The freefall school is made up of over 100 permanent instructors who annually train nearly 1,000 students from all the military services in freefall parachute techniques.
- The U.S. Army Engineer District, Yuma Resident Office is responsible for construction and reviewing governing plans and specifications. To safeguard government interests,

the office ensures that all materials and equipment have been approved and recommends improvements that could result in a better job or savings to the government.

- U.S. Air Force Flight Test Squadron provides air support for testing and training activities at YPG.
- U.S. Army Parachute Team, the “Golden Knights,” performs high-precision parachute drills at air shows, competitions and special events throughout the nation.
- The Special Operations Terminal Attack Controller Course teaches Special Forces troops from the Army, Air Force, and Marine Corps the conduct of close air support missions and fully certifies them as qualified Joint Terminal Attack Controllers.
- U.S. Army Contracting Agency provides purchasing, contract administration, contracting, and other procurement services to YPG.
- The U.S. Air Force Aerostat site provides airborne surveillance assistance to Air Combat Command to detect and curb the influx of illegal drugs into the United States.

### **3.2 YUMA PROVING GROUND ARCHITECTURE AND LAYOUT**

Typical of many military installations, the YPG built environment is linked to functional districts (also called units) -- land use areas that accommodate specific operations. Various utilitarian architectural themes and designs exist within these areas; there is no dominant theme nor is there any industry-recognized architectural style (e.g., Spanish Colonial, Queen Anne, Italianate) apparent (with one exception; see Section 4.3.2). The mix of buildings and structures at YPG represent all shapes, sizes, and colors, including one- and two-story wood-frame, stucco buildings; large and small concrete masonry facilities; and pre-engineered corrugated metal buildings of various heights (Hermann Zilgens Associates 1988).

Over time, some of the functional districts have become incompatible with their originally intended purpose (e.g., workshops and storage buildings have been adapted to administrative functions). The result of such adaptive reuse is that the buildings within a given area often no longer express the function for which they were originally intended.

There are five functional units of YPG within which a variety of testing, training and administrative activities are performed: Laguna, Cibola, Kofa, Airspace, and Off-Post Locations (see Chapter 1.0). In addition, there are four principal cantonments, listed below.

#### **3.2.1 Principal Cantonments**

The four principal cantonments of YPG are the Main Administrative Area, Laguna Army Airfield, Yuma Test Center, and the Kofa Firing Range complex. Constructed miles apart, these cantonments were developed and situated in response to operational safety requirements. Access to all cantonment areas is restricted.

##### *MAIN ADMINISTRATIVE AREA*

In the main administrative area, buildings are of markedly differing sizes, colors, and styles, many of which have functions that belie their original design (i.e., barracks used as offices). The focus of the area is Building 2, which served as the Post Headquarters from World War II up to the early 1990s, and which currently houses the YPG Heritage Center.

Within this area there are several functional districts, including the enlisted, officer, and troop housing areas. Single-family and duplex units of stucco are organized along curved and linear

street patterns and the majority of the houses have private patios and carports (see discussion in Section 4.3.2). Landscaping consists of shade trees, lawns, and flowering desert plants, all of which help provide a more tolerable microclimatic condition during the hot summer months. Of all areas on the installation, the combination of site layout, landscaping, color, scale, and spacing of the buildings conveys the most coherent and visually attractive image. Troop housing consists of three-story buildings of concrete masonry.

In addition to Building 2, the majority of other community facilities at YPG are situated within the Main Administrative Area as well. These facilities include an elementary school, a post office, a commissary, a bowling alley, a theatre, a fire station, a recreation center, the installation exchange, and a chapel.

There are also maintenance, supply, and storage facilities within the Main Administrative Area. The largest of these is Building 204, a large hangar constructed in 1954 that currently serves as the engineering and housing maintenance shop. A cluster of one and two story metal corrugated buildings serve primarily as supply and storage facilities; however, some also contain administrative space.

Overall landscaping in the Main Administrative Area is the most noteworthy of all of the four administrative areas and includes lawns, flowering desert plants, and shade trees (particularly in the housing areas). The rolling terrain along the northwest and south perimeters of the Main Administrative Area forms a natural boundary and provides dramatic views from within. Portions of the boundary (facing Imperial Dam Road) are well screened with rows of tall trees.

#### *LAGUNA ARMY AIRFIELD*

The visual image of the Laguna Army Airfield is that of a small, but bare industrial type development dominated by a water tower, an airfield control tower, two hangars, a fire and rescue building, a long runway, and several small operations buildings. All of the facilities are essentially featureless and of utilitarian design—the area is essentially flat and not landscaped. Since 1999, the airfield area has significantly expanded; however, the mission remains unchanged.

#### *YUMA TEST CENTER*

Laid out in the form of a grid system, the Yuma Test Center (formerly Materiel Test Area) is a moderate-sized cantonment that appears industrial and operational. The focal point of this area is the Range Operations Center (ROC; Building 2105), a large two-story, stucco-covered, concrete building situated in the center of the complex; the remaining facilities are one and two story buildings that house a variety of administrative, service, and support functions (e.g., Public Affairs Office [PAO], Procurement, Resource Management). With the exception of some landscape plantings that partially screen the parking lot in front of the ROC, the surrounding terrain is primarily not landscaped. Many administrative functions are housed in this area of YPG.

#### *KOFA FIRING RANGE COMPLEX*

The Kofa Firing Range Complex is an isolated assembly of randomly placed, industrial type buildings of various sizes and shapes. Facilities house administrative, maintenance, and support functions for the Kofa Range, and several within the complex have their own fences and guard stations. Several kinds of ammunition storage igloos are also in the Kofa area, the majority of

which are of earth-covered steel arch construction and date from 1956 or later. As with the other primary cantonments, the Kofa Firing Range Complex is largely characterized by buildings and structures of utilitarian design with minimal landscaping. Some of the largest single structures on YPG (e.g., Building 3490—Large Vehicle Maintenance) are situated within this area; many of the facilities are of recent construction (1990-1997).

### **3.3 YPG NATURAL ENVIRONMENT**

Cultural resources sites, structures, and features constitute significant elements of the landscapes and ecosystems within which they are located—in other words, they are a part of the “cultural landscape.” The National Park Service defines a cultural landscape as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values” (Birnbaum 2010). The following section describes physical characteristics of the natural landscape that have influenced the prehistoric and historic cultural adaptations and settlement patterns in the YPG area.

#### **3.3.1 Climate**

Yuma Proving Ground and the surrounding area are classified within the Lower Sonoran Desert Shrub Major Land Resource Area of the Sonoran Desert (Austin 1981; Brown 1982; Turner et al. 1995). The climate is warm and arid, and high temperatures contribute to high evaporation and transpiration rates. This reduces the effectiveness of rainfall and moisture available for plant growth from late spring through early fall. Approximately 60 to 70 percent of the total precipitation (about 3.5 inches per year—much of which frequently falls during a single storm) occurs during the late fall and winter season; winter precipitation, occurring under lower temperatures, provides most of the moisture available for plant growth. Winters are mild, characterized by sunny, clear days and temperatures that range from slightly below freezing to highs near 85 degrees Fahrenheit (°F). The average January temperature is 55.9°F with the lowest temperature ever recorded at 23°F in 1971 (Western Regional Climate Center, [www.wrcc.dri.edu](http://www.wrcc.dri.edu), accessed 03/10/2011). The only measurable snowfall recorded since 1901 in the Yuma area occurred in December 1932 when 1.5 inches fell (Western Regional Climate Center, [www.wrcc.dri.edu](http://www.wrcc.dri.edu), accessed 03/10/2011). However, small accumulations of snow have been noted on Castle Dome, a prominent peak mountain 3,776 feet high located approximately 25 miles northeast of the Main Administrative Area, off YPG.

Summer days are hot and dry with temperatures exceeding 100°F on a daily basis (June through September). The average July temperature is 93.7°F with an average daily maximum temperature of 106.7°F; nocturnal temperatures average about 25°F cooler during the summer months. The highest recorded temperature was 124°F in July 1995 (Western Regional Climate Center, [www.wrcc.dri.edu](http://www.wrcc.dri.edu), accessed 03/10/2011).

Winds, which are generally light, come mainly from the west during the summer and from the north in the late fall and winter (Western Regional Climate Center, [www.wrcc.dri.edu](http://www.wrcc.dri.edu), accessed 03/10/2011). Sand and dust storms can occur during any month and frequently reduce visibility to 3 to 5 miles, but are generally of short duration.

### 3.3.2 Physiography and Geology

The southwestern region of Arizona encompasses a major portion of the Sonoran Desert. It is characterized by flat, desert plains and numerous washes and arroyos and is separated by low mountain ranges that generally exhibit a north-south or northwest southeast orientation. Elevations are generally less than 3,000 feet and the valleys between mountain ranges have slopes that average between 20 and 30 feet per mile. The region lies within the Colorado River drainage basin, with the Gila River as the principal tributary.

#### *MOUNTAINS*

About 25 percent of the total surface area of YPG is covered by steep, rugged, linear mountain ranges (Figure 3-5) with a maximum elevation of 2,880 feet (Hirschberg and Pitts 2000; Richard et al. 2000). They are composed primarily of Tertiary and Quaternary volcanic rocks, including basaltic and andesitic lava flows, as well as some intrusive dikes and plugs. Sedimentary rocks of Paleozoic and Mesozoic age compose portions of the Dome Rock, Middle, and Castle Dome mountains. These rocks consist mainly of limestone with lesser amounts of sandstone, siltstone, shale, and conglomerate. Precambrian metamorphic rocks comprise a significant portion of the Muggins Mountains and also crop out in the Castle Dome, Chocolate, Trigo, and Dome Rock mountains. These rocks consist of schist, granite and gneiss. Precambrian and post-Cretaceous granites are present in minor amounts in the Palomas, Dome Rock, Chocolate, and Trigo ranges.



Figure 3-5. Typical Linear, Rugged Mountain Range of the YPG Landscape (Source: Peyton 2006)

#### *VALLEYS*

The valleys within YPG comprise floodplains, stream terraces, alluvial fans, fan terraces, basin floors, sand dunes, and relic beach terraces (McDonald et al. 2009). Valleys are deeply filled (they can exceed 1,000 feet in thickness) with materials derived from the adjacent mountains and are composed of unconsolidated and poorly sorted gravel, sand, and silt, sometimes indurated with caliche cementation (Wilshire and Reneau 1992).

#### *DESERT PAVEMENT*

About 27 percent of YPG is covered by desert pavement. It occurs largely on terrace tops and is characterized by a highly varnished, single layer mosaic of pebbles, underlain by a thin (1-3 inch) vesicular soil crust and thick saline-sodic subsoil (Bacon et al. 2008). The varnish on the pebbles of desert pavement is an orange to brown, or black coating of iron and manganese oxides (see foreground in Figure 3-5).

#### *SOILS*

All soils on YPG are classified by the U.S. Department of Agriculture as typic aridic and hyperthermic (NRCS 1991). This results from an environment that has a mean soil temperature

of at least 72°F and more than 9°F difference between mean summer and winter temperatures at a depth of 20 inches or to bedrock, whichever is shallower. Although some of the soils in the region could support agriculture, precipitation is insufficient to produce crops without irrigation. Usually only sparse stands of xerophytic (adapted to dry conditions) trees and shrubs can exist on these soils.

The soils environment of YPG is relatively unchanging (assuming minimal human impacts to the surface). Soils range from moderately deep to very shallow in the mountains where bedrock is often exposed and deep and very deep in the intervening alluvial basins. Eighty-nine percent of the soils on YPG are very gravelly and/or extremely gravelly—soils are typically loamy in the La Posa Plain and King Valley areas. Soils in the southwestern areas including Phillips Drop Zone, Laguna Army Airfield and the Mobility Test Area are typically sandy.

### **3.3.3 Water Resources**

There are no perennial streams present on YPG and saturated basin fill sediments comprise the principal aquifer. Well records indicate that depths to ground water in the sediment range from less than 25 feet (near major drainages) to several hundred feet. In contrast with other basins in southern and central Arizona, long-term declines in water table elevation have not occurred on YPG, probably due to the lack of development.

Most of the rain that falls on desert pavement is shed to the nearby (typically dry) streambeds (known locally as washes). During a rainstorm, the thin soil crust is quickly saturated, but the salt laden subsoil repels absorption, forming a virtually impervious barrier and precipitating runoff. The desert washes collect the extra moisture resulting in diverse and productive plant communities. Rainfall also replenishes the few isolated natural desert tanks that occur on the installation.

### **3.3.4 Vegetation**

All of YPG is part of the lower Colorado River Valley, the driest subdivision of the Sonoran Desert with very high temperatures and very low and erratic precipitation. Perennial plant cover is extremely low in most areas, averaging from one percent to five percent across the region. Ephemeral (annual) species of grasses and forbs are numerous and can be locally abundant in both volume and numbers of species in unusually wet winter or summer seasons (Shreve and Wiggins 1964).

Although present day vegetation at YPG is characteristic of the lower Sonoran Desert and has been stable for several thousand years, evidence from fossil pollen records found in packrat middens has verified changes over time. Near the end of the last ice age in the mid-Wisconsin era (40,000 to 20,000 B.P.), vegetation flourished in this area that is typical of the Mojave Desert today. At elevations above 1,400 feet, a mesic woodland of single leaf pinon, California juniper, Mojave sage, and Bigelow beargrass was prominent. At lower elevations, shrublands of Joshua tree, black bush and creosotebush persisted. As time progressed and the climate changed from cooler and wetter to warmer and drier and from winter moisture to bi-seasonal rainfall patterns, the larger Sonoran Desert perennials so common today moved into the plant communities. By the early Holocene (8,000 to 12,000 B.P.), species like big galleta, brittlebush, Mormon tea, pygmy cedar, and creosotebush were dominant. By the mid-Holocene (4,000 to 8,000 B.P.) the paloverde, bursages, ironwood, ocotillo, and saguaro had expanded into the area

(Van Devender 1990). About 4,000 years ago, the current climate was established and plant communities became stable.

Following is a brief discussion of the vegetative classifications of YPG. The classifications are from Turner and Brown's (1994) definitive work on Sonoran desert scrub, adapted for use in the YPG Integrated Natural Resource Management Plan (INRMP) (U.S. Army Yuma Proving Ground 1998).

#### *LOWER COLORADO RIVER VALLEY SUBDIVISION*

The Lower Colorado River Valley Subdivision is represented by four plant communities (or series) on YPG. The subdivision prevails on lower and gently sloping alluvial fans and terraces areas commonly referred to as bajadas.

Creosotebush-White Bursage Series: This is the overwhelmingly prevalent series on YPG. The series has been further divided into distinct plant associations, three of which are present on YPG.

- *Creosotebush-White Bursage Association.* This association is found on the flat alluvium of the lower bajadas. Although plant density, cover and species diversity are comparatively low for this association, overall biological productivity can be high due to the potential for abundant growth of annuals in response to seasonal rains.
- *Creosotebush-Ocotillo Association.* This association occurs on upper bajadas and slopes at sites normally associated with shallow soils. The dominant species within this association are creosotebush, ocotillo and white bursage with a mix of subshrub species. Perennial grasses are rare. This association is generally well dispersed throughout YPG.
- *Creosotebush-Foothill Paloverde Association.* This association is found along runnels and minor washes. This association has relatively low plant species diversity and is dominated by creosotebush.

Mixed Scrub Series: Coursing through the dominant land cover are major desert washes that allow development of this limited but ecologically significant series. It is represented by one association on YPG.

- *Blue Paloverde-Smocketree Association.* This association is found in the major washes draining large watersheds and is subject to abrupt and dramatic alteration in response to storm events. The greater water availability supports high species diversity and abundance, complex vegetative structure and high percent cover as compared to surrounding habitat types. Common plants other than the two indicator species noted in the association's name are ironwood, mesquite, desert lavender, catclaw acacia, foothill paloverde and wolfberry. Some areas additionally support locally abundant populations of jojoba, bitter condalia or colubrina. Generally, portions of all major drainages on YPG contain excellent examples of this association. However, certain areas are exceptional: Mohave Wash (between Mohave Tank Mountains and South Trigo Peaks), Gould Wash (along the west side of the Mohave Tank Mountains), Indian Wash (north of the Middle Mountains and in the Chocolate Mountains), Los Angeles Wash (through the Middle Mountains), Castle Dome Wash, Yuma Wash, and Hoodoo Wash.



**Creosotebush-Big Galleta Series:** This series is associated with predominantly sandy soils at several disjoint sites on YPG. Big galleta is the common denominator.

- *Big Galleta-Foothill Paloverde Association.* This association was identified for isolated patches of dune habitat found in a localized area of YPG's northwestern corner. Common plants other than the indicators are creosotebush, white bursage, Palmer coldenia, ratany and ocotillo. Perennial grass species, other than galleta, are rare. The substrate is loess (wind-deposited soil). Sand dune formations are common within this association.
- *Big Galleta-Honey Mesquite Association.* This association is found in an area of the La Posa Plain south of the Dome Rock Mountains. Other vegetation consists of creosotebush, white bursage, ratany, desert Christmas cholla, and the perennial grasses three-awn and bush muhly. Soil deposition reflects a loess and alluvial formation resulting from sheet erosion. Except for occasional dense patches of mesquite trees, very little overstory of vegetative cover is evident.
- *Creosotebush-Big Galleta Association.* This association is represented in the southwest corner of YPG on what appears to be an old channel and associated deposits of the Colorado River. The terrain appears as a large, gently sloping hill of sand rising abruptly from the desert pavement to the north and abutting next to the Laguna Mountains to the south. Sandy plains, sandy hills and linear dunes typify the surface features. Additional vegetation consists of Emory dalea, ratany species, ocotillo, and ephedra. Overall it appears to be more vegetated and supports a wider variety of plants than neighboring habitat types.

**Saltbush Series:** An area south and west of the Main Administrative Area exhibits features characteristic of this series, generally located adjacent to canals and channels along the Colorado River. The dominant vegetation is four-winged saltbush in small pure stands or in many instances mixed with desert saltbush, creosotebush, foothill paloverde, honey mesquite, seepweed, and salt cedar. Many sites appear disturbed, and parts may have been cleared of all vegetation at one time.

#### **ARIZONA UPLAND SUBDIVISION**

The Arizona Upland Subdivision is represented by one plant community (or series) on YPG: the Paloverde-mixed Cacti Series. This diverse series usually occurs on rocky mountain slopes, upper bajadas, and coarse-soiled slopes.

- *Foothill Paloverde-Saguaro Association.* This association occurs on rugged mountain slopes throughout YPG. The substrate of this association is typically bedrock with shallow soils. The diversity and abundance of plant species within this association varies greatly. Common species within this association are white bursage, creosotebush, white brittlebush, cholla species, ocotillo, and shrubby coldenia.
- *Foothill Paloverde-Ironwood Association.* This association occupies the long, gently sloping bajadas adjacent to the montane Foothill Paloverde-Saguaro Association. This habitat association is well dispersed throughout YPG. The bajada eastward from south Trigo Peaks is a prime example. The bajadas are characterized by paloverde and ironwood lined washes interspersed with desert pavements generally lacking vegetation. Saguaro, cholla species, white brittlebush, white bursage, creosotebush, wolfberry, and ratany are common.

### MESQUITE BOSQUES

Mesquite bosques are highly productive, and species rich relative to the surrounding desert ecosystem, they provide important cover and habitat for a variety of animals. In June and July of 2008, YPG conducted a 344 acre survey for mesquite bosques (woodlands) in the Cibola and Laguna regions (U.S. Army Yuma Proving Ground 2008). A total of 185 bosques were identified that ranged in size from less than 0.5 acre to over 40 acres. Ten bosques exceeded five acres in size; the average size of the other 175 bosques was 1.14 acres. In February 2009, YPG completed a survey for mesquite bosques in the Kofa Region (U.S. Army Yuma Proving Ground 2009) and 23 additional bosques were found comprising a total of 21.06 acres. These 23 bosques range in size from less than 0.2 acres to five acres.

### INVASIVE SPECIES

Non-native, invasive plant species from other parts of the world have colonized portions of Yuma Proving Ground. The primary species known to occur and the resulting effects are described below.

Two types of tamarisk have colonized YPG: Athel tamarisk (*Tamarix aphylla*) and salt cedar types of tamarisk [most likely hybrids of *T. chinensis* and *T. ramosissima* (Gaskin and Schaal 2002)]. Salt cedar forms dense stands along the Gila and Colorado rivers, but normally does not invade open desert. However, salt cedar at YPG establishment is mostly a result of human activity, such as the alteration of water flow through road and other construction, the creation of ponding areas (e.g., borrow pits), and the release of water at wells and from reverse osmosis systems have created salt cedar stands far from the rivers. These stands have served as seed sources for invasion further out into the desert. Athel tamarisk is a very different species, planted by the railroads along tracks and other sites in the southwestern U.S. to provide shelter from wind erosion and to provide shade. On YPG, Athel tamarisks were planted on the main post sometime between 1954 and 1961 and have since spread several miles downwind into the Kofa Firing Range, mostly where water flow has been altered.

Both groups of tamarisk outcompete native plants, but the effects on wildlife are mixed. For example, the tamarisk provide cover and valuable nesting habitat for some bird species, but do not provide food for insectivores, as native insects cannot consume salt cedar, or seed-eating birds. Tamarisk burns readily and is fire tolerant, further destroying native vegetation, most of which is killed by fire.

Sahara mustard (*Brassica tournefortii*) and Mediterranean and Arabian grasses (*Schismus barbatus* and *Schismus arabicus*, respectively) are exotic winter-spring annuals that compete with native annuals and grasses for rainfall, nutrients and microhabitats. The primary impacts are changes in community composition and species abundance (Van Devender et al. 1997), which can prevent successful establishment of native annual plants, including food species of the Sonoran desert tortoise.

Mediterranean and Arabian grasses are widely naturalized in the Sonoran Desert. In 2005, testing activities ignited a fire on YPG that spread in the Kofa National Wildlife Refuge, eventually consuming 30,000 acres of vegetation. *Schismus* carried the fire between patches of native plants. Prior to invasion by these weedy grasses, wildfires rarely spread because of the gaps between native vegetation. With present technology it is not possible to control these species at the landscape level.

Buffelgrass (*Pennisetum cilare*) is a robust savannah grass native to the warmer parts of Africa, Madagascar, and India. Buffelgrass overcrowds areas and drives out native vegetation. It burns at extremely high temperatures even when green and recovers quickly after a wildfire event. YPG staff have observed and reported small stands of this species on portions of the installation. The YPG Environmental Sciences Division removes buffelgrass when it is identified and then monitors the location for at least 3 years for re-growth.

#### ***BROWSE AND COVER PLANTS***

Plant cover across the landscape is quite sparse and canopy cover is less than 5 percent—there are no true woodlands or grasslands on the installation. Because of the sparseness of browse and cover vegetation, most of the plant species found on YPG have some value to wildlife. The most valuable plants for large herbivores (e.g., desert mule deer, desert bighorn sheep) are all of the tree species for browse and thermal cover and all of the shrubby species for forage (e.g., jojoba, false mesquite, fourwing saltbush, range ratany, buckwheat species, whitethorn, brittlebush [dry flower heads], barrel cactus [fruits], janusia, ditaxis). Valuable browse for small herbivores, like desert tortoise, include slender janusia, lanceleaf ditaxis, and beavertail cactus (fruits) (Figure 3-6).

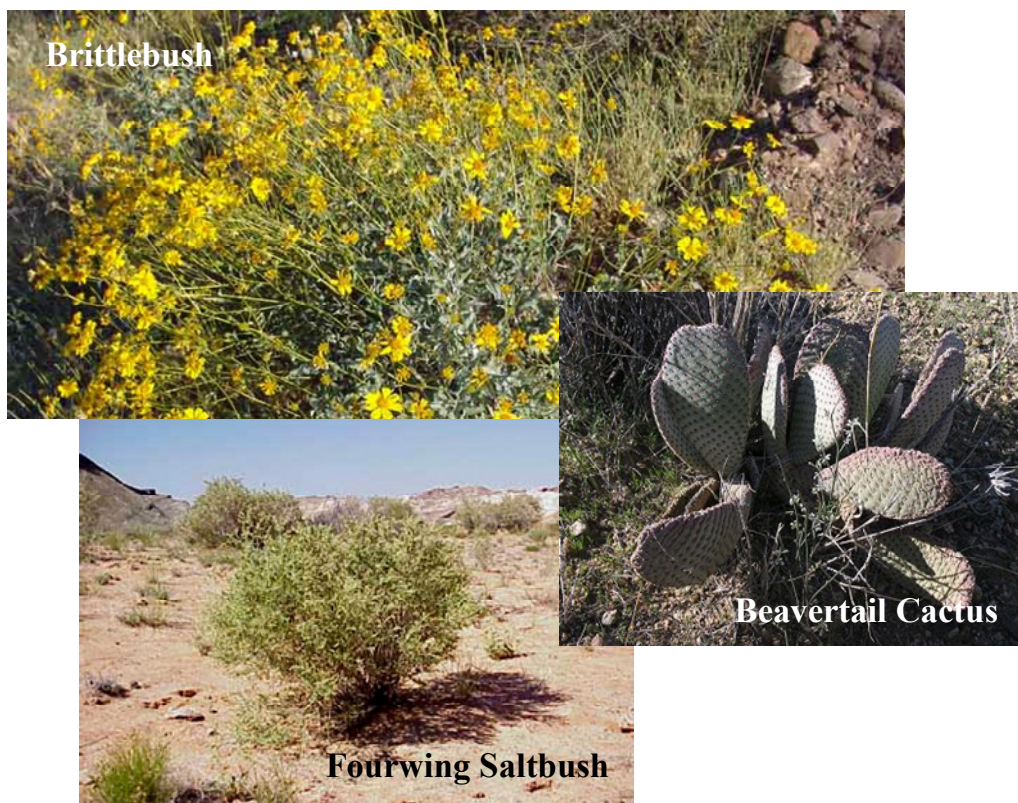


Figure 3-6. Typical Vegetation Found at U.S. Army Yuma Proving Ground

### 3.3.5 Wildlife

Wildlife on YPG is typical of Sonoran desert scrub habitat in that desert fauna and avifauna is much like the desert flora in its adaptation to the scarcity of water. Adaptations may take the form of hibernation, estivation, migration, and changes in seasonal and diurnal behavior in order to survive climate extremes. Some species are restricted to specific plant associations whereas others range over a wide area. Several groups of animals owe their presence to the close proximity of the Colorado and Gila rivers and the relationship with the Pacific Flyway.

#### *BIRDS*

Sonoran desert scrub habitats support an abundant and diverse avifauna. Resident species common to most of the desert areas of YPG include the Gambel's Quail, Verdin, Cactus Wren, Black-throated Sparrow, Loggerhead Shrike and Black-tailed Gnatcatcher. White-winged and Mourning Doves may be seasonally abundant. Raptors commonly found throughout the area are the American Kestrel, Turkey Vulture, and Red-tailed Hawk (Figure 3-7).



Figure 3-7. Typical Bird Species Found at U.S. Army Yuma Proving Ground

Certain bird species are specific to certain habitat types and may be locally abundant. In mountain areas dominated by the paloverde/mixed cacti plant community Rock Wren and Canyon Wren are found with seasonal visitation by Costa's Hummingbird and Phainopepla. The sparsely vegetated lower bajadas dominated by the creosote/bursage plant community and at some sites by the creosote/big galleta plant community support resident Sage Sparrow, LeConte's Thrasher, and Horned Lark. The larger washes representing the blue paloverde/smoketree plant association support the highest densities and richest diversity of desert avifauna. Associated primarily with this habitat on YPG are the Lesser Goldfinch, Common

Yellowthroat, Red-winged Blackbird, Flycatchers and seasonally, Lucy’s Warbler, Yellow Warbler, Phainopepla, and a number of others on a transient basis. In addition to the desert adapted birds, YPG’s avifauna is influenced by the manmade alterations related to grounds keeping and enriched by the proximity of the Pacific Flyway. The first instance allows the presence of “town adapted” birds such as House Sparrows, Starlings, and Grackles—the second results in migrant passages (e.g., wintering along the river) or sometimes accidental occurrences due to climatic events (e.g., California Brown Pelican, Bald Eagle, Peregrine Falcon).

### MAMMALS

Because of the harshness of the YPG environment, the installation is not mammal species rich. However there are a number of species of rabbit, squirrel, rat, mouse, bat, and gopher. There are, as well, ringtail, coyote, mountain lion, bobcat, badger, and two species of fox—gray and kit. Muskrat and porcupine may also be present. Among the larger mammals there are large populations of mule deer, desert bighorn sheep, wild horse, and wild burro (Figure 3-8). The desert bighorn sheep occur in the mountain ranges of the installation; mule deer, burros, and horses are found throughout.



Figure 3-8. Typical Wildlife Observed U.S. Army Yuma Proving Ground

**REPTILES**

Reptile species on YPG are abundant. Species include toads, geckos, lizards, a wide variety of snakes (including rattlesnakes), the desert tortoise, and the rare gila monster (Figure 3-9).



Figure 3-9. Typical Reptiles Found at U.S. Army Yuma Proving Ground

**3.4 YPG REGIONAL NATIVE AMERICAN GROUPS**

Due to the diversity of Arizona's landscape, prehistory, and history, there are numerous Native American tribes within the state. Those groups having potential interest in the preparation of this ICRMP, as well as YPG activities in general, are listed below; all are federally recognized tribes. A brief ethnographic sketch of each group is provided in Section 7.0. Additional detail about each group can be found in the Yuma Proving Ground Native American Consultation Plan (Tierra Environmental Services 2001). Addresses and names of individuals to contact within each group are provided in Appendix G.

- Ak-Chin Indian Community
- Cocopah Indian Tribe
- Colorado River Indian Tribes (CRIT)
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Gila River Indian Community
- Hopi Tribe
- Quechan Tribe of the Fort Yuma Indian Reservation
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- Tohono O'odham Nation
- Yavapai-Apache
- Yavapai-Prescott Indian Tribe

### 3.5 HISTORIC CONTEXT

Yuma Proving Ground lies within an archaeological and historical region known as the North American Southwest Culture Area (Ortiz 1983). It is a large region marked by contrasting and diverse landscapes, and divergent cultural adaptations as well. Many of the historic and prehistoric groups inhabiting the Southwest were largely dependent on farming, a way of life that most clearly differentiates the Southwest as a culture area and sets the region apart from other culture areas (e.g., the hunting and gathering areas of California, the Great Basin, the bison-hunting lands of the western Great Plains) (Cordell 1984). However, this agricultural way of life was not uniform across the Southwest, and was often supplemented by hunting and gathering of wild resources.

There are four major native cultural traditions of the Southwest: the Pima and Papago of southern Arizona and Sonora (and related peoples of northern Mexico), the Pueblo Indians of Arizona and New Mexico, the Athapaskan-speaking peoples—the Apache and Navajo, and the Yuman-speaking peoples of the Colorado River Valley, southern California, and Baja California. It is this last tradition with which the environment and material remains of YPG are most closely associated.

#### 3.5.1 Prehistory

Yuma Proving Ground, situated on the margins of the lower Colorado River region, is positioned on the fringe of the Southwest culture area (Cordell 1998), on the western edge of the region known as the Western Papaguera (Altschul and Rankin 2008), and adjacent to the desert cultures of southeastern California and northwestern Mexico (McGuire and Schiffer 1982; Schaefer and Laylander 2007). As such, it has been occupied through prehistory by peoples with a variety of regional origins, traditions and culture areas.

Native groups who historically inhabited and used the YPG area spoke languages of the Yuman linguistic stock, including Quechan (Yuma), Maricopa (including Halchidhoma and Kavelchadom), Mojave, and Yavapai. Yuman-speaking groups inhabited much of western Arizona, southern California, and Baja California, in four main linguistic divisions. The River branch includes Mojave, Quechan, and Maricopa, agriculture-based societies living along the Colorado and Gila rivers on the southern and western margins of YPG. The Pai (or Upland) branch inhabited the mountains and deserts of western Arizona and northwestern Baja California; among these groups, the Yavapai occupied the YPG area. The Delta-California branch of Yumans includes the Diegueño, whose territory was in the vicinity of San Diego County and adjacent northwestern Baja California, and the Cocopah, who lived on the Colorado River delta in northeastern Baja California. The final linguistic branch is the Kiliwa, a group living in Baja California (Kendall 1983; Stewart 1983a).

Linguistic evidence has suggested that the Yuman stock diverged from a homeland in northern Baja California and expanded into the southwestern Arizona region fairly late in prehistory, roughly 1,700-2,500 years ago (Hale and Harris 1979; Laylander 1997; Rogers 1945). On the other hand, “genetic data point to a Yuman homeland in the Arizona/New Mexico region of the Southwest rather than in Baja California” (Malhi et al. 2003:119). Recent evidence of linguistic borrowings indicates that groups ancestral to the River Branch participated in a multi-ethnic archaeological culture known as the Hohokam (Shaul and Hill 1998).

As the evidence of linguistics and genetics indicates, the region around YPG has had a rather dynamic history of human occupation. The prehistoric cultural chronology for southwestern Arizona can be divided into three major periods: Early (also known as Paleoamerican or San Dieguito), Middle (Archaic or Amargosa), and Late (Formative or Patayan).

#### *EARLY PERIOD (PALEOAMERICAN)*

This period represents the earliest few millennia of known human occupation in the region. Human occupation of North America is widely recognized as having occurred by 13,000 calendar years ago, but considerable dispute arises regarding how much earlier than that, with arguments ranging from only a few centuries to thousands of years. Recent investigations strongly suggest that people have occupied western North America since at least 14,000 years ago (e.g., Gilbert et al. 2008; Jenkins 2007).

Earlier ages for occupation by the ‘first Americans’ have been proposed but are much less secure. For example, the Yuha burial, located west of YPG, was once thought to date to the late Pleistocene, but radiocarbon dating revealed it to be of late Holocene age instead (Taylor et al. 1985). Closer to YPG, numerous archaeological sites contain stone tools and waste flakes that are heavily patinated with desert varnish and embedded in well-developed surface desert pavement. These artifacts sometimes occur alongside patches of ground that lack the well-developed desert pavement and that are commonly interpreted as clearings made by people, ‘sleeping circles’ or ‘trails’ (e.g., Rogers 1945, 1966; Marmaduke and Dosh 1994). Hayden (1976) argued for an age of 17,000-40,000 years before present (BP) for these phenomena, basing his supposition on the presence of heavy desert varnish on the stone implements and the location of artifacts within, or on, desert pavement. However, dating by means of position in desert pavement or by the degree of patination is inherently problematic. Numerous studies have shown that desert varnish forms at varying rates, dependent on the type of rock, the surface morphology (both macro and micro), and local climate (Dorn 2009; Elvidge 1979; Liu and Broecker 2007; Moore and Elvidge 1982). No reliable independent chronological method has verified the supposed antiquity of these presumed sites. Moreover, many of the cleared areas are very likely to be scars left by the growth of shrubs or animal trails, not created by human agency at all (see Section 3.8). Even those clearings and other archaeological features that are anthropogenic (rock piles, cairns, trails, etc.) are often associated with artifacts dating to much later times (such as ceramics, arrow points, or even historic-mining tools and debris), so they cannot be considered as peculiarly ancient.

On much firmer evidence, two major archaeological traditions are recognized for the Early Period in the region, here called the San Dieguito Complex and Western Paleoindian. The following discussion focuses primarily on the San Dieguito Complex, as archaeological evidence of the presence of the Western Paleoindian is largely lacking in the YPG region.

**San Dieguito.** This archaeological complex was first defined by Malcolm Rogers, a pioneering archaeologist who worked extensively in the Yuma region in the first half of the twentieth century. San Dieguito is characterized by large stemmed projectile points, a viareity of scrapers and bifaces, percussion-flaked cores and choppers, lunate-shaped artifacts known as crescents, and large retouched flakes and flake tools. Grinding stones are absent to very rare.

San Dieguito is part of a broad early archaeological complex, variously called the “Prearchaic” (Elston 1982), “Paleoarchaic” (Beck and Jones 1997; Willig and Aikens 1988), “Lake Mojave”



(Campbell et al. 1937; Wallace 1962; Warren and Crabtree 1986), “Western Lithic Co-Tradition” (Davis et al. 1969), “Western Pluvial Lakes Tradition” (Bedwell 1973), or “Western Stemmed Tradition” (Beck and Jones 2010). Variants of this complex have been found through much of western North America from Washington State to northern Mexico. San Dieguito is the variant found in southern California and western Arizona, including YPG (Rogers 1958, 1966; Warren 1967).

Rogers’ original term for San Dieguito peoples was the “scraper-maker people” (Rogers 1939). He initially proposed three separate chronological phases originally called Malpais, Playa I, and Playa II; later, he renamed these phases San Dieguito I, II, and III to reflect their perceived similarities to a sequence of early archaeological industries in western San Diego County (Rogers 1958, 1966). Warren (1967) defined the San Dieguito Complex to incorporate Rogers’ Lower Colorado sequence (the original Playa I and II phases), the original San Dieguito sequence, and other desert archaeological complexes that he thought represented a generalized hunting tradition dating ~9,000-10,000 years old (Amsden 1937). This same stone tool industry was included in the Western Lithic Co-Tradition of Davis et al (1969), and in his Western Pluvial Lakes Tradition concept (Bedwell 1973) to reflect a tendency of sites to occur on or near shores of ancient lakes and along old stream channels. Many presumed Early Period sites at YPG occur on lower gravel terraces and mesas along the Colorado River Valley, below about 1000 feet altitude.

San Dieguito is characterized by a variety of stemmed projectile points, bifacially worked tools (plano-convex and double-convex knives), stone crescents, a variety of choppers and scrapers, percussion-flaked unifacially and bifacially worked choppers, and notched pebbles. Rogers (1939) considered finely-worked bifaces and projectile points to be later additions to the general stone tool industry, leading him to differentiated three separate phases of San Dieguito. However, the chronological distinction between these phases were not confirmed stratigraphically by Rogers nor by later excavations at the CW Harris type site or elsewhere, and chronological distinctions of the stone tool industry in Early Period sites has not yet been well documented. Some distributional distinctions between different kinds of tools (such as projectile points and crescents) have been noted; for example, long-stemmed projectile points are exceedingly rare in the YPG area, only a single questionable example being found at White Tanks by Rogers (1966).

The age of the San Dieguito complex is poorly constrained. Warren (1984) estimated the complex to range in age from ca. 12,000-7,000 BP, based primarily on age estimates from early Pre-Archaic archaeological complexes elsewhere in western North America. Direct chronometric evidence places the dates of stemmed points as old as 11,200 BP, but only about 7,100-9,200 years ago in the southern deserts (Beck and Jones 1997). Artifact assemblages from Ventana Cave, southwestern Arizona, dating to approximately 8,500 BP (possibly to as early as 10,500 BP; cf. Huckell and Haynes 2003) are closely similar to San Dieguito, as well as to the early Archaic Sulphur Spring phase assemblages of southeastern Arizona that date to ca. 8,500 BP (Waters 1986). The C. W. Harris site in western San Diego County, the type site of the San Dieguito Complex, contains associated radiocarbon dates of 8,500-9,000 BP (Warren 1967).

Western Paleoindian. The term “Paleoindian” generally refers to the Clovis, Folsom, and Plainview archaeological cultures, predominating east of the Rocky Mountains. These archaeological complexes are noted for containing large, well made concave-based lanceolate

projectile points, typically thinned by ‘fluting,’ a specialized technique of removing long channel flakes from each face of the point beginning at the point’s concave base. Accompanying these distinctive fluted points is an equally distinctive stone and bone tool technology including large blade flakes, endscrapers, and other well-made formal chipped stone tools. Grinding stone food preparation technology is not known. In western North America, fluted points differ in style from ‘classic’ Clovis points found further east, and are part of what has been called the western fluted point form. They are extremely rare in western Arizona and southeastern California, occurring as isolated surface finds. No fluted points have been found at YPG, though there is an unsubstantiated report of the recovery of a single fluted point in the foothills outside of Yuma. A supposed ‘fluted point’ was found at Ventana Cave, which had led to speculation that the early materials from that site were affiliated with Clovis cultures. However, recent work at this site casts doubt on the affiliation of the materials with Clovis, and places it better with San Dieguito or early Archaic assemblages (Huckell and Haynes 2003). It is doubtful that Western Paleoindian assemblages are significantly represented at YPG.

#### *MIDDLE PERIOD (ARCHAIC STAGE)*

The Middle Period (often called the Archaic Stage by prehistorians) is a broad interval of time in which mobile hunter-gatherer groups utilized a diversified subsistence technology, made more intensive use of food resources such as seeds and small game, and occupied a wider range of environments. At YPG and in the western Arizona and southeastern California desert, the Middle Period is recognized by the introduction of particular projectile point forms (Pinto, Elko, Gypsum and San Pedro series) and by the inception of milling stone seed-processing technology (Huckell 1996; Irwin-Williams 1967, 1979). These introductions are thought to have occurred ca. 8,000-8,500 BP, although there may be some temporal overlap with Early Period stemmed points and other artifact forms (Huckell 1996; Irwin-Williams 1979). This period is often divided into two or three main intervals (Huckell 1996; McDonald 1992; Rogers 1939), based largely on the projectile point styles present and the abundance of grinding stones. Adding complexity to the Middle Period patterning in this region, southwestern Arizona appears to lie along a boundary between two rather distinct traditions (Huckell 1996; Irwin-Williams 1979; McGuire 1982), the Amargosa tradition of southern California and northern Arizona (Rogers 1939, 1966) and the Cochise Tradition of southern Arizona (Sayles and Antevs 1941). The end of the Middle Period is marked by the introduction of ceramics and agriculture as an important component of subsistence.

The earliest phase of the Middle Period is marked by broad triangular points with indented bases known as Pinto points, from their first definition in the Pinto Basin, near Twenty-nine Palms, California (Campbell et al. 1937; Irwin-Williams 1967). These points sometimes occur together with the Lake Mojave-style lanceolate spear points of San Dieguito III, indicating overlap with Early Period archaeological assemblages. Grinding stones are rare but present, consisting of thin flat slabs with little preparation. Huckell (1996) places the early phase between 8,500-5,500 BP; others place the end of this period as late as 4,000 BP (Warren 1984). Sites of this phase may contain cleared circles, trails, trail shrines, and intaglios (McGuire 1982; Rogers 1939), but dating of these surface phenomena has depended on relative weathering and patination; no reliable quantitative ages of these features are presently available.

The subsequent phase of Middle Period occupation (sometimes called the Amargosa Phase [Rogers 1966] or Gypsum Phase [Warren 1984]) is marked by the introduction of new styles of

projectile points: Gypsum contracting-stemmed points, Elko and San Pedro corner-notched points, and side-notched (Chiricahua) points. Different styles of projectile points (Elko and San Pedro) may indicate ethnic differentiation and development of cultural territories (Shackley 1996), but the evidence for such boundaries is tenuous. Basin metates, mortars and pestles appear at this time, along with a continuation of flat slab metates. Shell ornaments and beads from the California or Gulf of California coasts and animal effigy figures made of wrapped split twigs are known from sites of this period. Constructions include cleared areas, rock rings, fire-cracked rock clusters (hearths and roasting pits), trails and trail shrines, and probably intaglios. This phase is believed to extend from 5,500 to as late as 1,500 BP (Cleland and Apple 2003; Love and Dahdul 2002; Schaefer 1994).

One particularly important archaeological site for investigating Middle Period lifeways in the region is Indian Hill Rockshelter, located in Anza-Borrego Desert State Park (McDonald 1992; Wallace et al. 1962). It is one of the only excavated localities in the region with a deep culturally stratified deposit that clearly shows the superposition of pre-ceramic Middle Period occupation containing large spear and dart points (predominantly Elko Eared), topped by later-period occupations containing ceramics and small arrowheads. The site was occupied for the past 5,000 years as a “long-term seasonal camp during the winter and spring, and possibly to some extent in other seasons (McDonald 1992:327). The site served as a base for broader forays to upland or desert foraging grounds. Middle Period occupation after ~4,000 BP included abundant carefully constructed cache pits, presumably for the storage of foodstuffs. Occupation at the site appears to have steadily increased over the past 4,000 years, though less intensive occupation may have occurred between ~2,000-1,200 BP. More intensive occupation re-commenced after 1,200 BP by pottery-using peoples of the Late Period.

The Middle Period in the YPG region has limited archaeological representation, as it does in other parts of the southern California and southwestern Arizona deserts, suggesting to some investigators that human populations were sparse and highly mobile (Altschul and Rankin 2008; Schaefer 1994; Weide 1976). Elsewhere, though, a significant number of late Middle Period sites have been found in some areas of southeast California, including permanent villages around the margins of ancient Lake Cahuilla (Love and Dahdul 2002). Part but not all of this relative concentration of sites may be traced to the late Holocene history of Lake Cahuilla (see further discussion below). Late Middle Period sites are also known along the Gila River in southeast Arizona (McGuire and Schiffer 1982).

Toward the end of the Middle Period, grinding stones became increasingly common, well-formed, and diversified in function. It is possible that early agriculture began to be developed in the region during this period. Current evidence indicates that maize-based horticulture was introduced into parts of the American Southwest about 4,000 BP (Diehl 2005; Huckell 1996), more than ~2,000 years before the introduction of pottery. Squash, beans, and possibly cotton and tobacco were also introduced from Mesoamerica. The timing of introduction of these crops and agriculture in the lower Colorado River region is not presently known, however, and probably much later than 4,000 BP.

#### *LATE PERIOD (PATAYAN COMPLEX)*

The Late Period, sometime after about 1,500 BP, was a time of great cultural change in southwestern Arizona and southern California. Archaeologically, it is marked by the addition of paddle-and-anvil pottery (Griset 1996; Rogers 1945; Schroeder 1957, 1979; Waters 1982). The

bow and arrow was also introduced at about this time (McDonald 1992; Cleland and Apple 2003). Evidence of long-distance movement and contact include an elaborate network of trails and trail shrines and evidence of trade and close interaction in southern Arizona and coastal southern California (e.g., Beck and Neff 2007; Malhi et al. 2003; Schaefer and Laylander 2007:254-256; Shaul and Hill 1998). Finally, the introduction of floodplain agriculture along the Colorado and Gila rivers resulted in marked subsistence and settlement shifts, involving a mixed farming-foraging economy (Castetter and Bell 1951).

The Late Period has been referred to by various names (e.g., Yuman [Rogers 1945]; Hakataya [Schroeder 1957]), with the term Patayan (“old people”) increasingly favored (Altschul and Rankin 2008; Cleland and Apple 2003; McGuire and Schiffer 1982). The term ‘Patayan’ is most frequently used to refer to the cultures of southwestern Arizona between ca. 1,500 BP to the historic period. The Patayan complex is apparently ancestral to historic native Yuman-speaking inhabitants of the region.

The Patayan complex has been divided into three phases based primarily on different pottery types defined from surface treatments, temper, and vessel and rim forms (Rogers 1958; Waters 1982). Recent investigations have cast some doubt on the chronological distinctions among these phases based on certain vessel or rim forms (e.g., Hildebrand 2003), and the utility of the types has also been questioned (Seymour 1997). Indeed, the origins and spread of Patayan ceramic technology in southern California and western Arizona continues to be an important current research issue (Griset 1996; Schaefer and Laylander 2007; Seymour 1997). However, according to the tri-partite Patayan sequence, characteristic Patayan I ceramic types include Black Mesa Buff, Black Mesa Red on Buff, Colorado Beige, Colorado Red on Beige, and Colorado Red. Characteristic traits include rim notching, lug-and-loop handles, the “Colorado shoulder,” chimney necks on jars, punctate and incised decoration, burnishing, red clay slip, and manufacture via basket molding (Waters 1982). It was thought to date to 1,300-900 BP, but may be younger (Cordell 1984:99). Patayan II is marked by five major ceramic types: Tumco Buff, Parker Buff, and Topoc Buff along the lower Colorado River, Palomas Buff along the Gila River, and Salton Buff along the shores of Lake Cahuilla. Vessels having recurved rims, stucco finishes, and fine geometric designs are added, as are new vessel forms, but the distinctive “Colorado shoulder” apparently disappeared. The age of these ceramics was roughly estimated to be about 1,000-500 BP. Patayan III ceramics include the continuation of Palomas Buff and Parker Buff and the addition of Colorado Buff types, and a new narrow necked olla form. These ceramics are associated with historic period artifacts at some sites, and have been linked to historic Yuman groups in the region.

This late prehistoric period was a time of expansion in occupation up the lower Gila River and in the deserts of southeastern California, particularly around the margins of Lake Cahuilla, in the Salton Basin. Several times within the past 1,500 years, the Colorado River diverted into the Salton Basin to form Lake Cahuilla, instead of flowing down to the Gulf of California (Waters 1983). Waters (1983) identified four lake highstands between 1,300-500 BP (see also Laylander 1997); Schaefer (1994) hypothesized a lake infilling sometime between 350-500 BP, based on abundant late prehistoric occupations dating to that interval. Brief infilling episodes have also occurred since that time (Wilke 1978). Lake Cahuilla, a large freshwater lake and wetland environment, drew many people from throughout the Colorado and Mojave deserts to inhabit the lake’s margins, with a variety of subsistence and settlement patterns ranging from large semi-permanent villages in some locations to highly seasonal temporary camps in others (Love and

Dahdul 2002; Schaefer and Laylander 2007). The filling of Lake Cahuilla may have reduced the productivity of the lower Colorado River delta region, inducing peoples from that region to migrate to the lake, where they would engage with peoples from other areas of southern California. This interaction may have fostered the spread of trade goods as well as technologies, such as ceramic production (Griset 1996; Schaefer and Laylander 2007).

Patayan sites at YPG have been identified as habitation sites and limited-activity sites which often contain rock rings, rock piles, intaglios and other clearings in the desert pavement, trails, trail shrines, and small artifact scatters (McGuire 1982; Stone 1991). They are generally recognized as Patayan by the presence of ceramics or arrow points. Most sites appear to be limited-activity camps. Larger former habitation sites are present nearby, yet even these are quite ephemeral in their archaeological remains. Typical habitations were jacal or brush structures, which appear as large rock rings in the archaeological record. Ethnographic evidence indicates that Yuman settlements, and likely those of the Patayan, were seasonal. Fields were planted in the Colorado River floodplain after the summer rains and groups moved away from the river in the winter. Many of the temporary structures and seasonal settlements that were constructed in the floodplain have likely been destroyed or are deeply buried by subsequent annual flooding (McGuire 1982:220). Settlements away from major drainages were associated with the seasonal gathering of plant and animal resources and are equally ephemeral given the semi-nomadic lifestyle.

The lifeways of these peoples are known primarily through ethnographic documentation and observations by the first Europeans entering the Yuma area. The documentary record contains some inherent biases, but they provide the only information for much of the lifestyle of the Patayan III and the changes caused by the introduction of European goods and observances. These documents are essential for the study of western Arizona desert lifeways during the 1500s.

### **3.5.2 Historic Period**

The first European explorers into the lower Colorado River area document a fairly sedentary lifestyle for the Yuman peoples. These groups were apparently living in rancherias along the Colorado and Gila rivers, and were exploiting primarily the river terraces and floodplain, with limited excursions into the uplands for hunting and gathering (Bee 1983). Architectural features were generally low, semi-subterranean wattle-and-daub structures with earth roofs and appear to have supported more than a simple nuclear family. Ramadas were frequently used during the warm summer months. The economic cycle of the early Yuman peoples was reconstructed in detail by Castetter and Bell (1951) and the social organization and leadership roles by Forde (1931) and Kroeber (1925).

#### ***EUROPEAN EXPLORATION TO THE MINING PERIOD (1500S TO 1849)***

The Spaniards were the first Europeans to come into contact with the Indians of the southwest and for nearly 300 years they were the only white persons who entered the region. Spurred by tales of untold riches and myths of golden cities, the conquistadores expanded the frontier of New Spain, enslaving the natives of Mexico for work in the mines and on the ranches or farms that supplied the mining camps. By 1531, an outpost had been built at Culiacan, in the Mexican state of Sinaloa and, within the next decade, the area that now comprises the state of Arizona was traversed for the first time by non-Indians (Wagoner 1989).

Likely due to the sparse nature of the environment and the harsh climate, the area around Yuma was never settled by the Spanish. Several Spanish expeditions did pass through the YPG area, however, leaving written records (diaries and maps) of their presence. The primary routes of travel were along the Colorado and Gila rivers—very few Spaniards ventured into the interior desert areas.

In 1539, Fray Marcos de Niza led a second expedition, in search of Cibola, the seven cities of gold. Fray de Niza, an optimist, soon reported that he had seen one of the seven cities, and news of his discovery spread (Hoffman 1984). In 1540, another expedition led by Coronado attempted to locate Cibola as well; however, it was Hernando de Alarçon, captain of Coronado's naval flotilla, who first ventured into the area of the lower Colorado River and Yuma. Commanding ships up the Gulf of California into the mouth of the Colorado River, Alarçon and a group of 20 men were the first to sail this river and the first to encounter the Yuman peoples. Unsuccessful in trying to convince his men to cross the desert and meet Coronado (at that time in the New Mexico area), Alarçon stayed in the vicinity of Yuma Crossing and, knowing that Coronado would eventually try to find him, erected a large cross near the mouth of the river (now known as the Gila) and buried a message summarizing his discoveries along the Colorado River (Wagoner 1989). Coronado did attempt to find Alarçon by sending an envoy, Melchior Diaz, who eventually did reach the Yuma Crossing.

Juan de Oñate made the next expedition into the YPG area in 1604. Oñate colonized New Mexico, then traveled west to the fork of the Bill Williams and Colorado rivers, following the Colorado to Yuma and the Gulf of California (Hoffman 1984).

Until the Jesuit missionaries began traveling into southwestern Arizona in 1687, there were no further expeditions into this area. In 1687, Padre Eusebio Francisco Kino began venturing into Arizona on short expeditions. Two of these expeditions brought Fray Kino into the YPG area. Kino's travels provided proof to the Spanish government that California was not an island, and could be reached by an overland route by crossing the Colorado River at the Yuma Crossing (Trafzer 1980).

Padre Jacobo Sedelmair led the second Jesuit expeditions into the lower Colorado River region in the early 1700s. Sedelmair followed the Gila River from the Casa Grande area to Agua Caliente. From there he traveled to the Colorado River, following it into the Yuma area. Sedelmair made two additional expeditions, in 1748 and 1750.

In 1787, the King of Spain expelled all Jesuit missionaries from Arizona, replacing them with Franciscan missionaries. Padre Francisco Tomas Garcés was one of 14 original Franciscans assigned to the Southwest. He was sent to San Xavier del Bac in 1768 and traveled to the Yuma area in 1770. Garcés was intrigued with the Yuma area and made arrangements with the Presidio of Tubac Commander to journey again into the lower Colorado River region. In 1774, Garcés and Juan Bautista de Anza journeyed along the El Camino del Diablo, a trail roughly parallel to the present Arizona/Mexico border, until they reached the Yuma Crossing. There they met the Yuma Indians, crossed the Colorado River into California, and continued west to the Mission San Gabriel (Trafzer 1980), returning to the Yuma area that same year. In 1775, Garcés and de Anza returned to California by this same route, bringing settlers with them.

The Spanish did not establish permanent settlements in the YPG area, despite their repeated expeditions. However, some settlement did occur on the California side of the Colorado River

when Garcés established a mission at the Yuma Crossing. The Yumans attacked the settlers and the mission in 1781, however, and the Spanish responded in force (Trafzer 1980). Father Garcés was killed during the attack and, as a result, the Spanish military leaders “condemned” the Yuma area and abandoned all settlement along the river.

Little of historical significance happened in the YPG area between the time Father Garcés was killed and Mexico won independence from Spain. There were very few explorations into Arizona under Mexican jurisdiction and, with the exception of brief sojourns by Mexican soldiers seeking Apache raiders or by hunters and trappers (Trafzer 1980), few people entered the area. No permanent settlements occurred during this time.

In 1846, the United States declared war on Mexico, and some military expeditions did pass through the YPG area on their way to California. In 1848, by the Treaty of Guadalupe Hidalgo, Mexico ceded to the United States all of Arizona north of the Gila River. Government survey teams quickly entered the YPG area. Disputes arose over precise boundaries, and it was not until the Gadsden Purchase in 1853 that the area south of the Gila River became part of the United States.

After the United States acquired the Arizona Territory, several expeditions were sent to survey the area. One, led by Edward Fitzgerald Beale in the 1850s, convinced the U.S. Congress that camels would save time and money in moving goods across the desert. Camels and two Egyptian camel drivers were imported, and the expedition set out across the YPG area. Camels continued to be used until the Civil War, when they were auctioned off (Trafzer 1980).

#### *THE MINING PERIOD (1849 TO 1942)*

Miners were the first notable group to enter into and settle the YPG area. Gold was discovered in California in 1849, but many “forty-niners” settled in Arizona instead. Fort Yuma was established in 1849 at Yuma Crossing, on the California side. Originally named Camp Calhoun, and then Camp Independence, Fort Yuma was located to provide a haven for settlers and to provide protection for travelers to the gold fields. It was abandoned in 1851, and reoccupied (and officially named Fort Yuma) in 1852. At that time, however, the area encompassed by YPG still had no permanent settlements (Hoffman 1984).

In 1858, gold was discovered in the foothills of the Gila Mountains. By 1860, Gila City (approximately 15 miles east of Yuma) had been established and was a town of several hundred people, living in brush lean-tos and tents (Hoffman 1984). The boom did not last long, however, and Gila City was abandoned by 1862. Mining was attempted again in the late 1800s but no settlements were successful. Two other mining camps, Oroville, located 3 miles east of Gila City and Las Flores, located about 3 miles north of Gila City, grew quickly but also faded within a few years. The locations of the camps at both Oroville and Las Flores are uncertain; however, both may have been located within the current boundary of YPG (near the southwestern corner) (Hoffman 1984). A stage station was established in 1866 at the present town of Quartzsite, and a stage road connected Yuma with Quartzsite that ran through the current boundaries of YPG, probably along the route of old State Highway 95 (JRP Historical Consulting 2009).

In 1862, gold was discovered along the lower Colorado River, north of Ehrenberg in La Paz (approximately 5 miles northwest of the northernmost boundary of the Cibola Range). The La Paz area was worked until 1867, producing between \$4 million and \$5 million in that short

period (Sloan 1930). Several mines are known to have been located within 10 miles of this area (some of which would have been located within the boundary of YPG).

The gold discoveries at Gila City, Oroville, Las Flores, and La Paz began a mining boom in the mountains surrounding the Colorado and Gila rivers, and resulted in the first permanent settlements in the YPG area. Additional mines sprung up and mineral districts such as the Eureka district in the Trigo Mountains opened the area for development (Hoffman 1984).

The most intense occupation of the YPG area occurred during the late 1800s. Hundreds of mines existed, some of which yielded large amounts of minerals, including gold, silver, lead, and mercury. Names and ownership of mines changed frequently, and there are no good records in existence for many of the mines in the YPG area. The larger producers, however, included Cinnabar Mine (mined for mercury by the local Indian groups for use as body paint) in the northwestern corner of YPG; Red Cloud Mine (silver), in the Trigo Mountains; Castle Dome Mine; Flora Temple Mine; William Penn Mine; Caledonia Mine (lead); and King of Arizona Mine (gold) in the Kofa Wildlife Refuge (Figures 3-10 and 3-11). Small towns grew around the larger mines, some of which persisted into the mid 1900s. Supply wagon trails were built across much of YPG to connect with steamboat stops at places like Castle Dome Landing, Norton's Landing, La Paz, and Ehrenberg; additional trails ran north/south to the Gila River.



Figure 3-10. Collapsed Miner's Shack located in the Northern Cibola Region

After the big mines died out, independent miners relocated and worked the old claims. Tailings dumps were also mined from 1899 through the early 1900s, but in

1906, all mining in the area essentially ceased. The demand for lead revived

some activity during World War II, but that revival was short lived (Hoffman 1984). A few mines continued production into the mid-1900s, but most were either worked out by the early 1900s or forced to close because of a decrease in the market value of metal. The last of the big mines, the Sheep Tank Mine (approximately 5 miles north of the northernmost boundary of the Kofa Range), closed in 1934 (Hoffman 1984). Towns near the mines were abandoned and many have been destroyed by natural deterioration, vandalism, or by historic flooding.

Remnants of abandoned mines, placers, and prospects have been identified within the Dome Rock Mountains, Trigo Peaks, Chocolate Mountains, Middle Mountains, Laguna Mountains, Muggins Mountains, and the Castle Dome Mountains. However, no active mining is taking place on the installation and the nature and extent of these features have not been well documented in the cultural resources record.

After the end of the active mining period in the YPG area, farms and ranches were built along the Colorado River, but these types of settlements did not extend into YPG proper because of a scarcity of water.



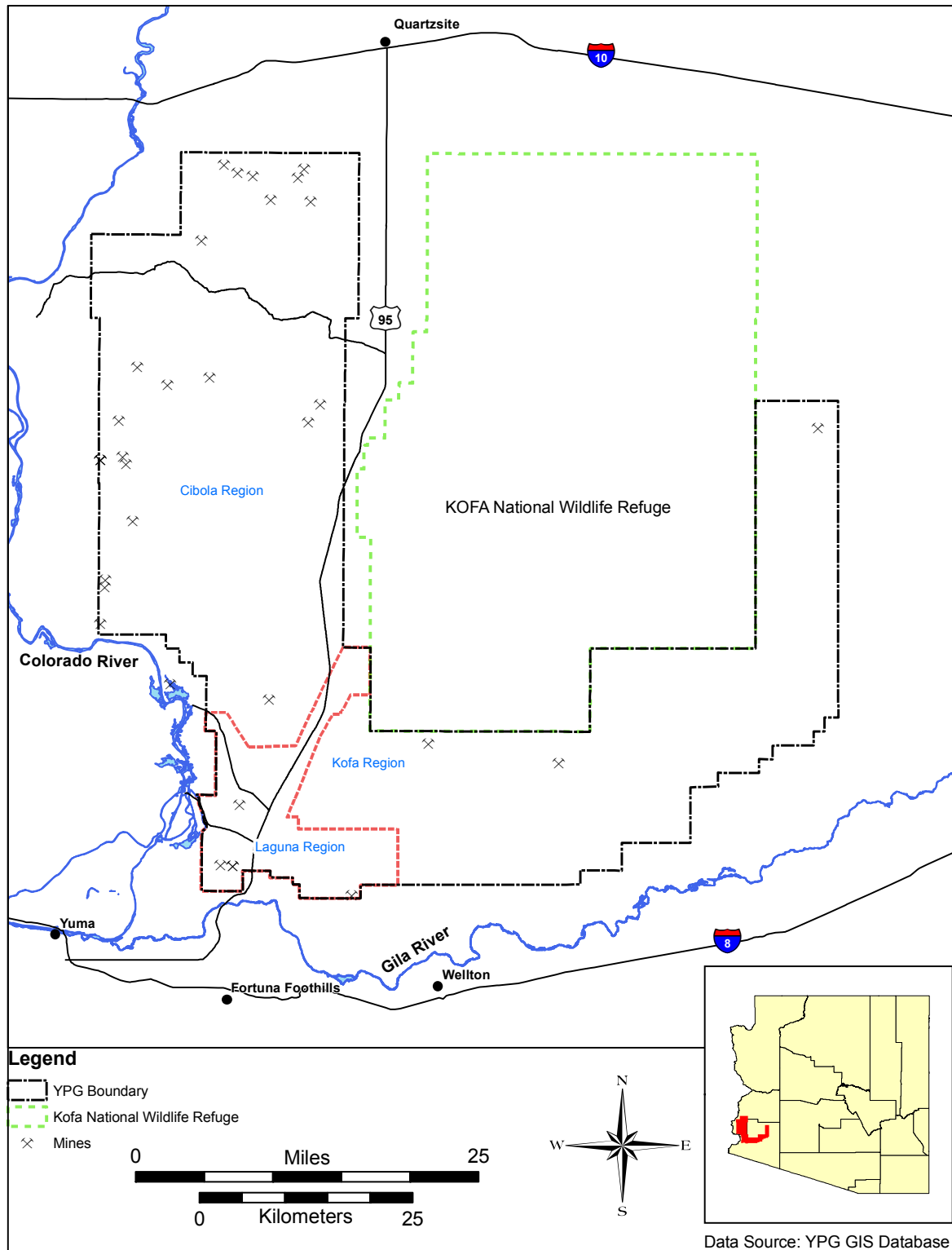


Figure 3-11. Location of Historic Mines U.S. Army Yuma Proving Ground

**MILITARY PRESENCE (1942 TO THE PRESENT)**

Although the Yuma area has had a long relationship with the military since the establishment of Fort Yuma in 1850, the YPG area remained relatively unsettled until World War II, when the Army began to use the area for a variety of testing and training purposes. The following sections present a brief military historic context from which to assess cultural resources at the installation (Bischoff 2008; JRP Historical Consulting 2009).

Desert Training Center/California-Arizona Maneuver Area (1942-1944). In the early years of World War II, the War Department began to receive reports from the forces stationed in North Africa, Alaska, and the tropics regarding environmentally induced equipment failures and the effects of severe weather on troop performance. To study these types of effects, the War Department established training, testing, and research centers for each of the three severe climate types—desert, tropics, and severe cold weather. In the six months from March to September 1942, the Army Ground Forces activated four special installations—the Airborne Command, the Amphibious Training Command, the Mountain Training Center, and the Desert Training Center (DTC) of California and Arizona (Howard 1985).

*The war in Europe is over for us. England will probably fall this year. It is going to be a long war. Our first chance to get at the enemy will be in North Africa. We can not train troops to fight in the desert of North Africa by training in the swamps of Georgia. I sent a report to Washington requesting a desert training center in California. The California desert can kill quicker than the enemy. We will lose a lot of men from heat, but training will save hundreds of lives when we get into combat. I want every officer and section to start planning on moving all of our troops by rail to California [Lynch et al. 1982].*

In March 1942, General Patton established a base camp near the town of Desert Center, California, where he commanded two units: the I Armored Corps and the DTC (Figure 3-12).

The DTC was enormous in size (approximately 18,000 square miles) and was unlike any other area the Army had ever experienced for either training or combat. Divided into three principal maneuver areas, A, B, and C, of which “B” encompassed YPG (see Figure 3-12), the primary mission of the DTC was to train troops in desert survival and tactics for missions in the North African Theater. By March of 1943, the North African campaign was in its final stages and the troops of the DTC were no longer needed for combat in that area. As a result, the War Department changed the name of the DTC to the California-Arizona Maneuver Area (CAMA), placed it under the command of the IV Corps, and modified its mission to afford maximum training of combat troops, service units, and staffs under conditions similar to those that might be encountered overseas (Lynch et al. 1982).

The DTC-CAMA remained active for 13 months. During its activation, the CAMA’s military population rose to nearly 190,000, numerous roads were constructed throughout the maneuver area, numerous installations were established, hospitals were built, and massive tent cities were erected. Among the installations constructed, there were several in the Yuma vicinity (e.g., Pilot Knob Division Camp, Yuma Army Airfield, Araby Well Campsite), but only one in the YPG area—Laguna Division Camp (Lynch et al. 1982).

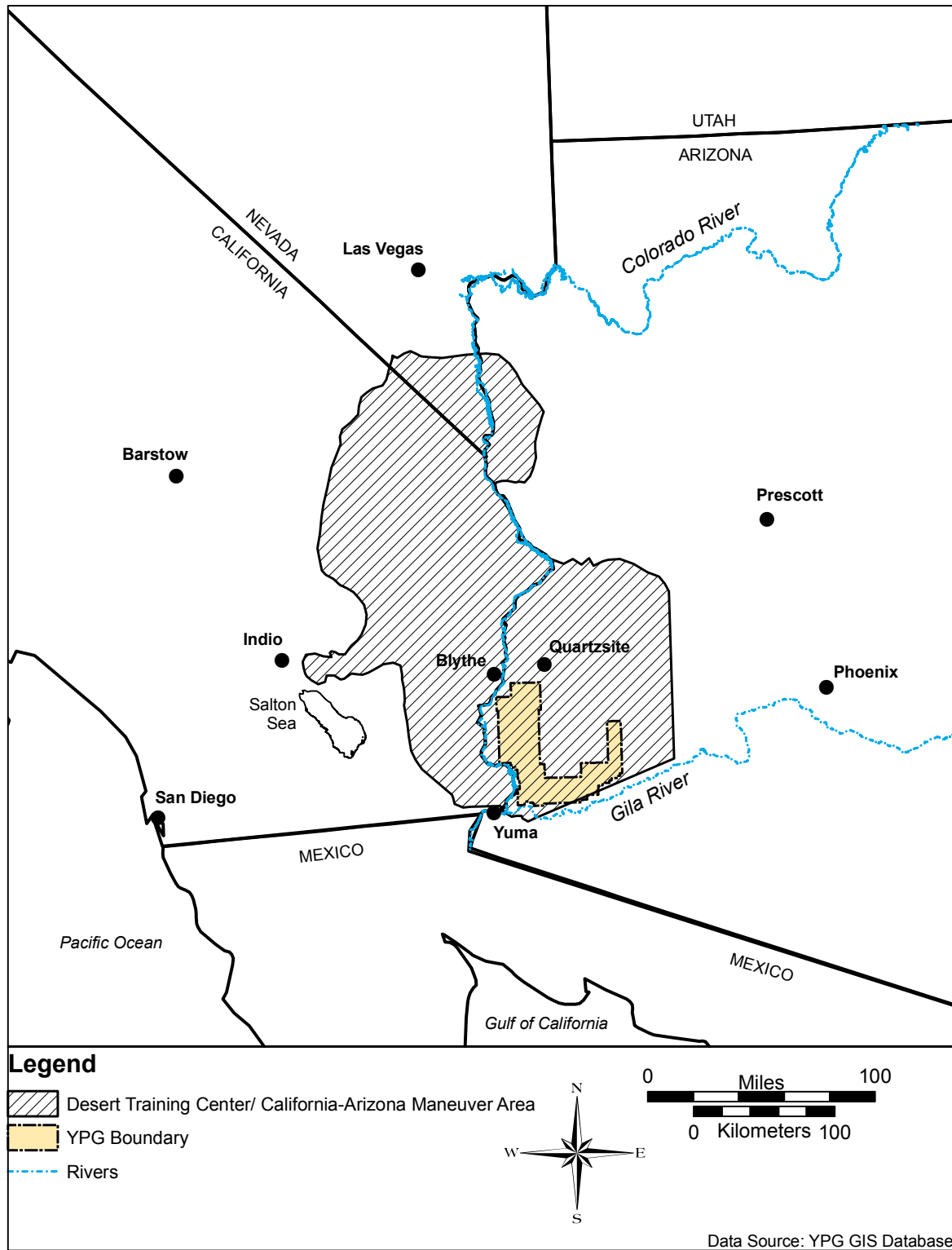


Figure 3-12. Desert Training Center (DTC)/California-Arizona Maneuver Area (CAMA)

The DTC-CAMA was officially deactivated in April 1944; however, there was a concerted effort to close the camps, collect, salvage, and ship out thousands of pieces of equipment and tons of material, and generally clean up the entire area. All that remains today of most of these areas are tank tracks in the desert pavement, rock-lined walkways, and tent and other structural foundations (Lynch et al. 1982).

Camp Laguna (1943-1944). One of dozens of small installations dotted across the CAMA, and one of only six temporary division-sized tent camps, Camp Laguna was the only military settlement that was established within the boundary of the present day YPG (situated along the present day Imperial Dam Road, just west of Highway 95) (Figure 3-13). Camp Laguna, which trained the 3rd and 9th Armored Divisions and the 29th Infantry Division, was of General Patton's original design:

*There would be nothing fancy, no soft living; the men would live in tents without electric lights, sheets for their cots, heat or hot water. Buildings needed for administration and planning would be primitive single-story structures of plain wood covered with tar paper [Patton Papers 1940-1945 as cited in Lynch et al. 1982].*

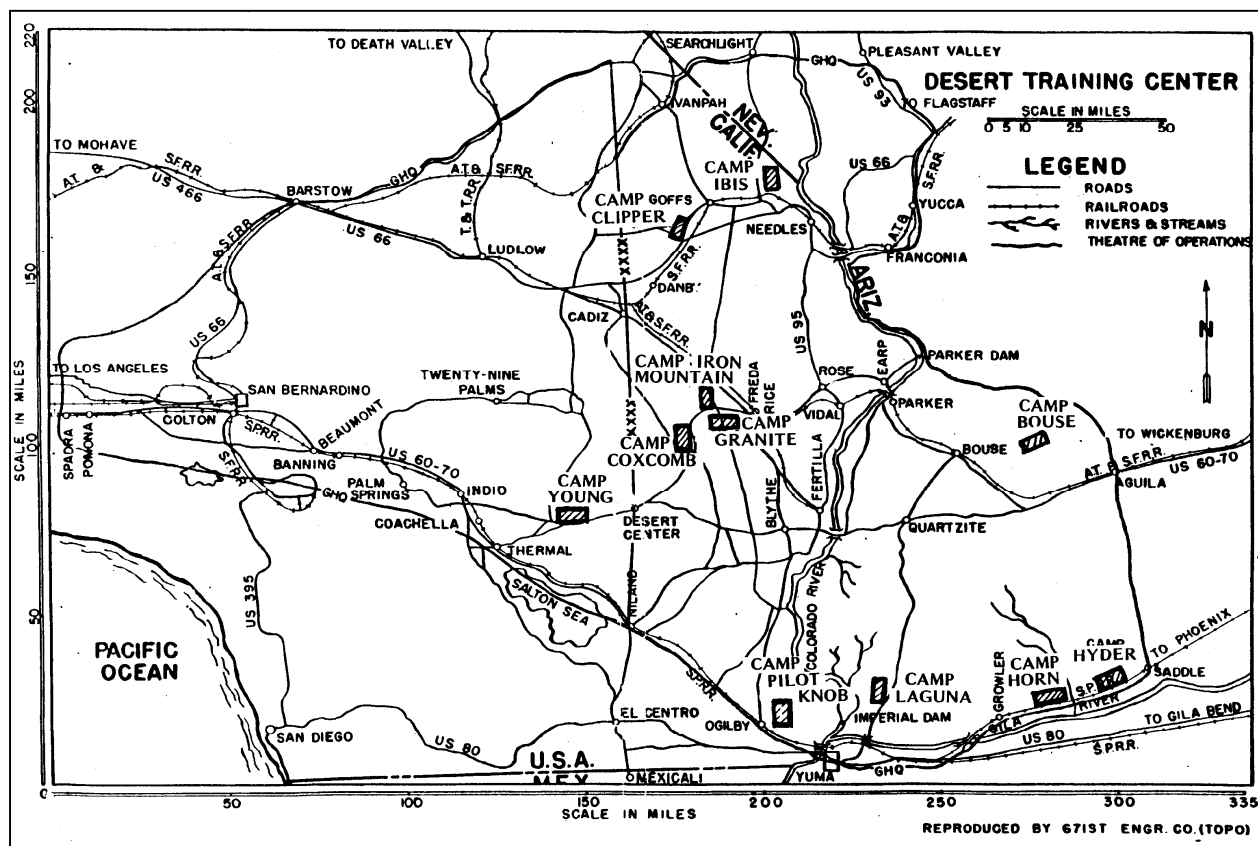


Figure 3-13. Location of Desert Training Center Camps, 1942-1944 (Source: U.S. Department of Interior, Bureau of Land Management)

In addition to hundreds of tent sites, the installation also consisted of a few temporary buildings (primarily latrines and kitchens) and the Laguna Army Airfield, which was constructed to serve the encampment (Figure 3-14). No buildings or structures remain from Camp Laguna; however, the site of the camp does contain the remains of hundreds of rock-lined walkways, tent and other



Figure 3-14. Tents at Camp Laguna

structural foundations, and artifacts remaining from the World War II desert training (Bischoff 2008).

In 1943, the Yuma Test Branch was established by the Chief of Engineers, U.S. Army, at the foot of the Imperial Dam. At the time, the site was considered the most desirable location in the United States for capacity testing of floating military bridges because of an abundance of swift water.

Administrative facilities and barracks were rented from the Bureau of Reclamation (BOR) about 1 mile from the test site and, for two years, bridges

were shipped to Yuma from Fort Belvoir, Virginia, for testing. Modifications were made to the original designs and by September 1943, specifications for the Steel Treadway Bridge M-2 were ready for contractor fabrication (Howard 1976).

In 1944, the Allies had begun exerting increased pressure against Germany in Europe and more troops were needed. The 555th Engineer Battalion, which was then based at Yuma and supporting the bridge testing, was reduced in force and replaced with two Italian service units organized from prisoners of war. Working through bilingual American officers, the two units arrived in Yuma in July 1944. Displaying a general distaste for the Arizona desert, having a somewhat different work ethic than their American Battalion predecessors, and being ill-trained for their new tasks, the Italian prisoners of war fared poorly at bridge testing efforts. Many of the prisoners had to be assigned to other types of tasks (chefs, painters, stonemasons, mechanics, boat operators), at which they performed well (Howard 1976).

One of the last bridge testing assignments in which the Italians participated was that of an entirely new type of floating bridge designed in New York. This bridge had a new type of pontoon and a new type of flooring and, after testing at YPG, was adopted as the Floating Bridge M-4 (for the M-4 tank) and scheduled for full-scale fabrication (Howard 1976) (Figure 3-15). At the close of World War II (in September 1945), the Italian prisoners of war were ordered home and the Imperial Dam Engineer Station was abandoned.

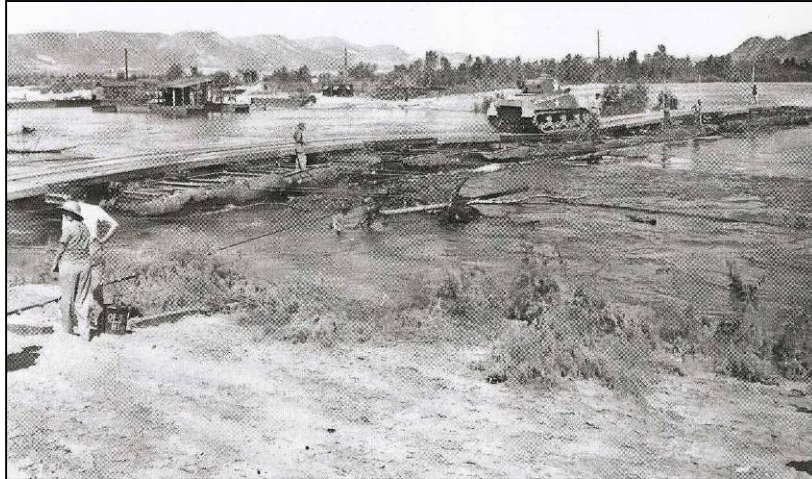


Figure 3-15. M-4 Tank crossing a Floating Bridge at the Yuma Test Branch

There are no known material remains of either the bridge testing activities or the Italian prisoners of war presence within the boundary of YPG. One stone construction (an ornate “paint locker”) built by the Italian prisoners of war is located just outside the southwestern boundary of YPG (approximately 1 mile from the Main Administrative Area entrance). Currently situated on Bureau of Reclamation land, the paint locker was constructed to provide cool underground storage for cans of paint and to keep the Italian stonemasons proficient at their trade. The top of the structure was decorated with several stone towers, one of which was inscribed with the word “Italy” (Figure 3-16).

Although the bridge testing activities had been halted and the Italian prisoners of war had departed, other activities of the Yuma Test Branch continued. Focusing on the Pacific Theater, the Army began testing methods of passing vehicles over rice paddy fields. Special efforts were made to simulate rice paddies and both track-laying and pneumatic-tired vehicles were tested over them. Before the methods and equipment were tested in actual combat, the war ended and all testing ceased (Howard 1976).



Figure 3-16. Elaborate Paint Locker Constructed by Italian Prisoners of War (Source: Peyton 2000)

Recognizing the usefulness of the past programs near Yuma, the Army continued to support testing in the area, but changed focus to the effect of the desert environment on pieces of engineering equipment, including high-speed tractors, semi-trailers, and revolving cranes. The Army Ground Forces and the Waterway Experiment Station at Vicksburg, Mississippi, were also interested in hot-weather testing and sent approximately 300 officers and men to Yuma in 1947 to test ordnance vehicles and soils trafficability. At the same time, the Army began preparing for the construction of an entirely new post. Constructed 2 miles east of the Imperial Dam, the first buildings were completed in

1948 (5 barracks, a mess hall, a headquarters building, a company administration building, and 18 family quarters). Twenty additional quarters were added within the year, along with a number of other recreational and administrative facilities (Brenner 1984; Figure 3-17). A number of these buildings and structures are extant within the YPG Main Administrative Area, including Building 2, the original Headquarters Building, and the original five barracks.

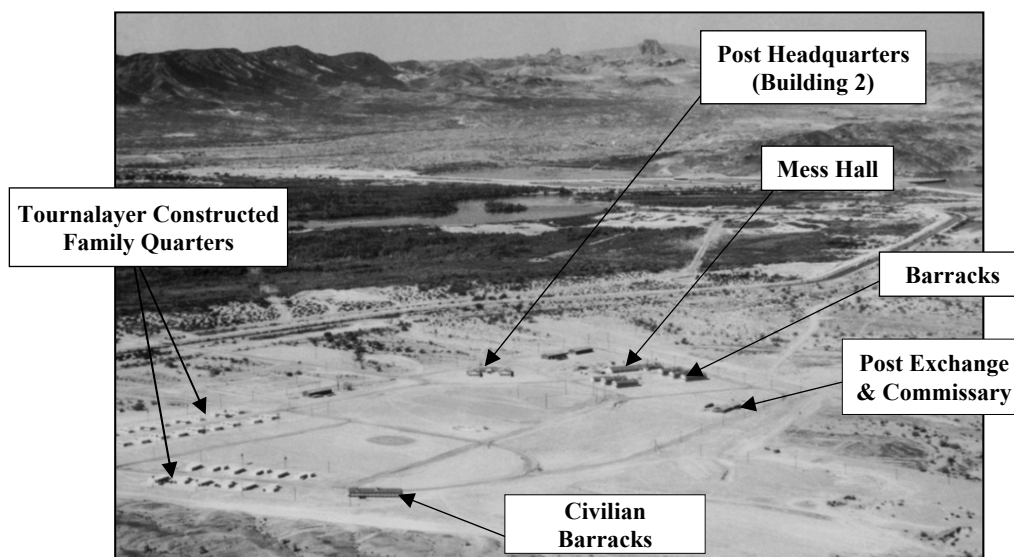


Figure 3-17. "New" Post, October 11, 1948

In 1949, a structural collapse at the Gila de-silting basin below the Imperial Dam forced an end to most of the testing activity and the Yuma Test Branch was deactivated. The Los Angeles Engineer District assumed caretaker responsibility for the installation in 1950. With the exception of the stone "paint locker" constructed by the Italian prisoners of war, all of the buildings from the original test site below the Imperial Dam were dismantled and shipped to Fort Belvoir. Since that time, the area of the original test site has been removed from YPG's boundary (Brenner 1984).

**Yuma Test Station (1951-1963).** Reactivated as the Yuma Test Station in 1951, under the 6th Army, the installation was re-established for desert and hot weather research and for environmental and general purpose testing by the Army Technical Service and the Army Field Forces. During these years, the Laguna Army Airfield was also modernized (1951). Between 1951 and 1963, the Yuma Test Station supported the following missions (U.S. Army Yuma Proving Ground 1973).

*Corps of Engineers Test Activities.* In the spring of 1951, the Engineers Research and Development Center at Fort Belvoir established a permanent test team at the Yuma Test Station. Called the Corps of Engineers Climatic Field Test Team, personnel conducted desert testing of construction equipment and provided scientific support to various users and tenant activities until 1963.

*Ordnance Test Activity.* The Ordnance Climatic Test Detachment was activated at the Aberdeen Proving Ground in 1951. From the detachment, ordnance environmental "team testing" was conducted at the Yuma Test Station. By 1960, this mission was expanded to

include development testing of free-flight short-range rockets, testing of fuel and lubricants, and conducting the Ordnance Corps air delivery program.

*Quartermaster Corps and Airborne Test Activities.* The Quartermaster Corps and Engineering Command of Natick Laboratories, Massachusetts, sent teams to the Yuma Test Station starting in 1953. A small detachment was permanently stationed at the installation to operate a petroleum laboratory for the Ordnance Test Activity; however, the test teams generally stayed only through a portion of the summer months. Some of the testing involved troop equipment and clothing protection, including the testing of different types of boot soles for extreme heat conditions. The Quartermaster Corps also authorized an Airborne Test Activity at the Yuma Test Station in 1958. The activity was responsible for testing air delivery systems, methods, and techniques.

*Chemical Test Activity.* In 1952, the Chemical Corps transferred a small team to the Yuma Test Station for environmental tests. Facilities, including a toxic chemical laboratory were built for environmental and surveillance tests of agents and protective equipment. The activity continued until 1960, when the work was largely transferred to the Dugway Proving Ground, Utah.

*Drone Test Activity—Signal Corps.* The Signal Corps test teams utilized the Yuma Test Station for at least the summers of 1951 through 1953 and provided a permanent meteorological detachment. Activities were primarily focused on desert environmental testing of radio and landline carrier equipment and shelters, as well as the effects of temperature and cloud cover on the speed of ordnance.

In the late 1950s, the Electronic Proving Ground at Fort Huachuca established a facility at the Yuma Test Station to use the installation's airspace for test flight of surveillance drones. Called the Western Terminal (Fort Huachuca was the Eastern Terminal), the facility monitored drone flights.

While the technical teams from these various organizations were conducting their research, two significant events were occurring that would have a major impact on the Yuma Test Station. The first of these was the development of the "dual capability" Army, an army that could fight either a conventional or a nuclear war, and the second event was the passing of the Defense Act of 1958 and its resulting reorganization of the Defense Department (U.S. Army Yuma Proving Ground 1973).

*Army Modernization.* Through the 1950s and early 1960s, the Army sought to develop and provide weapons and equipment for a nuclear Army. Developments were focused in four areas:

- New or improved weapons and more efficient instruments of war (from rifles to whole families of missiles). With a new emphasis on mobility, even the larger and heavier weapons and equipment were being designed to be air-transportable.
- A program to provide ground and air vehicles with battlefield mobility. This led to the development of armored personnel carriers (e.g., M-113) and a new diesel-powered M-60 battle tank.



- Increased mobility in the field of aviation. This was perhaps the most dramatic area of research, as the Army pushed the development of helicopters and low-speed fixed-wing aircraft.
- Computer technology. From the direction of weapons firing to the storage and retrieval of scientific and management data, computers assumed a growing number of functions throughout the Army.

The effect of these innovations on the Yuma Test Station was enormous. The requirement for air-transportability added another dimension to airborne testing—the burst of new equipment increased the environmental workload of the Ordnance Test Activity—and the increase in artillery and missile testing affected the installation from a space standpoint. Yuma had the best range in the United States for testing the new longer range artillery. It could also handle overflow in missile testing from White Sands Missile Range. All of these activities caused an increase in staffing and an increased need for instrumentation and facilities. The magnitude and complexity of the tests, rapid advances in instrumentation technology, and requirements for application engineering to meet Yuma’s unusual climatic and operational environments had their effect. There was a new need for an in-house capability in instrumentation design and development to augment that provided by Aberdeen Proving Ground (U.S. Army Yuma Proving Ground 1973).

By direction of the Secretary of Defense and approved by the President, many DOD functions involving research, development, and supply were centralized in 1962. Most of the technical services were abolished and the statutory offices of the Chief Chemical Officer, the Chief of Ordnance, and the Quartermaster General were completely eliminated. Research, development, and procurement were brought under the newly formed AMC and testing responsibilities were assigned to a subordinate command designated the U.S. Army Test and Evaluation Command (TECOM). Yuma Test Station was re-designated as a Class II installation under the Commanding General of the AMC and all of its test activities were reassigned to TECOM. This essentially took seven test activities that were reporting to different commands and reassigned them to a single command (although left as separate activities) (U.S. Army Yuma Proving Ground 1973).

Adjustments to the new reorganization were slow and difficult due to the complexity of the previous organization and the number of individual activities involved. To help differentiate the pre and post periods of consolidation, the Army re-designated the Yuma Test Station as the Yuma Proving Ground in July 1963.

Yuma Proving Ground (1963-Present). As a result of the DOD reorganization and the requirement to equip a dual-capability army, YPG testing increased in both numbers and types. The first of the new missions resulted from the assignment of long-range artillery testing to the new proving ground. Development of 105 millimeter (mm) and 155 mm projectiles was being conducted, which led to a large amount of testing for standardization—to prove that the ammunition was safe for military use both in simulated extreme handling environments and in range firing. Since YPG had the best range to meet the distance and accuracy demands of these experimental munitions, substantial investments began to be made in the 1960s.

The new munitions spurred new developments in artillery weapons as well. Development testing of cannon tubes and recoil systems were assigned to YPG in the mid 1960s and that resulted in

an increased demand to measure and record short-lived phenomena associated with internal ballistics (U.S. Army Yuma Proving Ground 1973). Most of the artillery weapons testing was conducted in the Kofa Firing Range. Typical weapons tested included the Honest John and the Little John missiles (launched from rocket launch pads at Gun Position 11 on the Kofa Firing Front), artillery weapons, ammunition with calibers from 7.62 mm to 16 inch, and small arms (U.S. Army Yuma Proving Ground 1964).

Vehicle mobility testing and air drop testing were also active missions of YPG in the 1960s. In the 1960s and 1970s, there were over a dozen different types of vehicular environment test courses for numerous different types of military vehicles available at the Proving Ground. These included paved and sand dynamometer courses, a dust course, sand slopes from 10 to 20 percent, a tank hill course, a truck hill course, and a tank gravel course (U.S. Army Yuma Proving Ground 1970). Typical types of vehicular testing included fuel consumption, vibration data, and pressure and temperature data of the M-60 tank and a variety of desert vehicles. Maintenance shops were also established for most types of vehicles (U.S. Army Yuma Proving Ground 1964).

Tests were also conducted on three separate drop zones, one for ammunition or explosives, one for any non-explosive items, and one for personnel. There was also a controlled impact facility for static air drops. Tests included low-level air drops as well as “controlled impact” testing to determine the effectiveness of aerial delivery systems by dropping them in free fall (U.S. Army Yuma Proving Ground 1964).

One of the more high-profile programs at YPG during the 1960s involved modification of the High-Altitude Research Project (HARP) gun. The HARP was a 119-1/2-foot “supergun” modified from two 16-inch naval gun tubes that had been mounted on U.S. battleships. The designer was Gerald R. Bull, one of the world’s foremost artillery engineers. Shipped to YPG on special railroad cars, the gun was off loaded at the Blaisdell Siding and then trucked to Gun Position 10 at the Kofa Firing Range. Yuma Proving Ground took the two naval guns, mated them (Figure 3-18 shows the HARP gun being inspected at YPG), and then mounted them on a concrete base to form and test the largest gun in the world (U.S. Army Yuma Proving Ground 1966).

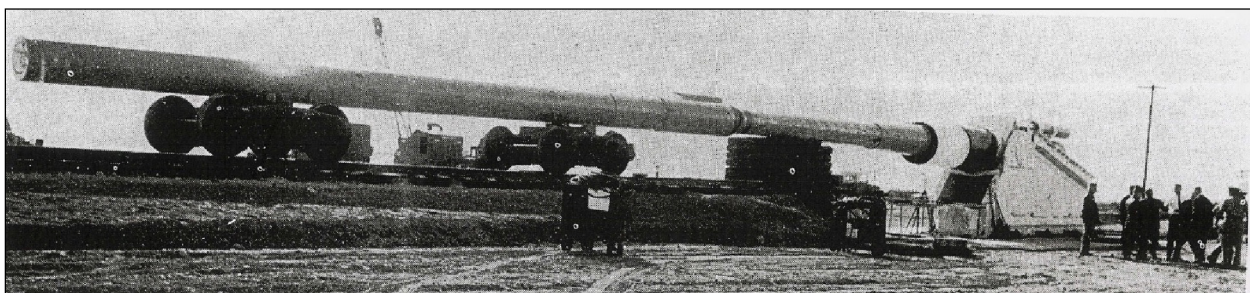


Figure 3-18. 16-inch High-Altitude Research Project Gun at YPG, January 1966

This gun was almost identical to a gun that had been tested in Barbados, although it had several improvements over the Barbados gun system. Figure 3-19 is a photograph of the HARP gun being tested on Barbados, the gun tested at YPG is essentially identical). The YPG gun enjoyed only a short operational life and only a few launches including one test conducted on November 18, 1966, when it lofted a 185-lb Martlet 2 vehicle to a world record altitude of 180 km (112



Figure 3-19. 16-inch High-Altitude Research Project Gun

miles). The world record was still unsurpassed in 2005.

The U.S. and Canadian governments curtailed funding for the HARP program in 1967, and Bull later severed his ties with the U.S. Government. He continued to develop artillery, including long-range weaponry, most notoriously with the government of Iraq from 1981 until 1990 (Maghrebi 2010). He was the chief engineer for Saddam Hussein's "Project Babylon" super howitzer, a direct descendant of the HARP gun but much larger, 156 meters long, designed to fire a 600-kg projectile 1,000 kilometers. This behemoth was never built, but smaller prototypes 40 meters long were developed and prepared for testing. Bull was assassinated in 1990, however, and the 1991 Gulf War destroyed the prototype superguns and Saddam Hussein's supergun program (Maghrebi 2010).

When American involvement increased in Indochina, new tactics emerged and the Army began studying new adaptations of existing weapons. This included special focus on the helicopter, which up to this point had been primarily used as a logistical and reconnaissance

tool. The Army made the helicopter the jeep of Vietnam and added a close-air support role. Starting with a machine gun in the doorway, the United States developed, within a decade, a fast helicopter with independent fire control systems and testing, using racks and pods that could fire a variety of automatic weapons (including 40mm grenades), launch rockets and guided missiles, and drop mines and flares. Testing of these combat adaptations was initially centered at Aberdeen Proving Ground; however, firing mechanisms required long range testing that could not be accommodated at either Aberdeen Proving Ground or Fort Rucker, Alabama.

As a result, in 1967, the Army began sending teams to conduct long range firing on the Cibola Range. At the time Cibola was being used for air delivery and chemical testing in its southern portion only—the remainder of the range (approximately 600 square miles) was essentially

undeveloped and deserted except for a large population of wild burros. Designated the Instrumentation Aircraft Armament Range, initial development consisted of placing old car hulls in the desert as static targets. A track-mounted moving target was installed a year later and oriented to support both ground and aerial weapon tests. Mobile cinetheodolites were also installed around the range's southern and eastern periphery, as were telemetry ground stations. As a result of the successful testing at the Cibola Range, the aircraft armament development testing mission was officially transferred from Aberdeen Proving Ground to YPG in 1971 (U.S. Army Yuma Proving Ground 1973).

Through the 1980s, YPG continued to support the planning, conduct, evaluation, and reporting of a variety of integrated tests, including the testing of tube artillery systems, aircraft armament systems air delivery systems, air movable equipment and mobility equipment. In addition, desert environmental testing of all types of materiel was expanded and the installation began to provide support to the mission of the U.S. Army Cold Regions Test Center in Alaska (U.S. Army Yuma Proving Ground 1981). In 1986, the installation also saw a sizeable increase in testing wheeled and tracked vehicles, including the M1 series Abrams main battle tank. Newly developed smart munitions and artillery projectiles such as Sense and Destroy Armor (SADARM) were tested and evaluated, as well as armament night avoidance navigation and night vision systems for the Army's Apache attack helicopter. Other tests in the late 1980s included operational testing of the missile armaments for the Navy/Marine Corps AH1-W attack helicopter (Super Cobra); 16-inch naval projectile testing for the Navy; air delivery parachute systems for combat support fire control systems for the Stinger missile; major testing on the Army's M1 tank, Bradley Infantry Fighting Vehicle, MO9A5/A6 PALADIN, and the Marine Corps Light Armored Vehicle; and the Army's advanced low-altitude tactical assault parachute. By 1987, YPG also supported two other special tests: protection of helicopters from enemy ground and air fire by adapting the Stinger missile to fire from the helicopter; and evaluating the laser guided, anti-tank, Hellfire missile.

Beginning in the late 1980s YPG expanded its testing mission to include the Army's experimental family of light helicopters (LHX). The LHX were designed to incorporate the most sophisticated technology in Army aviation seen to that time.

Throughout the remainder of the 1980s and 1990s, YPG continued to support expanded test and evaluation missions similar to those conducted in the previous decades. The focus was on the testing of artillery, mortars, mines, ground and aircraft weapons, target acquisition and fire control systems, wheeled and tracked vehicles, and air delivery materiel, equipment, and techniques. Mass tactical parachute jumps from the C-17 were begun in 1991 and a variety of complete weapons systems tests were carried out through the mid-1990s. Through these years the Kofa Firing Range became DOD's primary artillery test ranges and the Cibola Range became one of America's most highly instrumented aircraft armament ranges. Current activities and missions at YPG are summarized in Section 3.1.

### **3.5.3 Relationship of Historic Sites to the YPG Natural Environment**

Because of the sparse historic settlement history of the YPG area, there are only two historic settlement contexts—one associated with mining, the other associated with military land use. There is no verified historic settlement of this area prior to the mining period, though European explorers as well as settlers of the American west traversed the area.

### MINING LANDSCAPES

No studies have been undertaken that focus on the historic mining locations that were established within the boundary of YPG (see Figure 3-11). Nonetheless, it is apparent from written and oral histories that encampments and small settlements grew up wherever mining or placer claims were active. Except for the fortunate few who had placer claims along the river, these types of settlements were not driven by the presence or absence of water, considerations for protection, or requirements for food, but more by proximity to the valuable mineral veins and outcrops (see also Section 3.2.2). Written and oral histories about the mining era repeatedly indicate that the drive for mineral riches far outweighed the desire to build settlements in a more hospitable area.

*During 1897, it [water] was hauled from the river in barrels carried by freight wagons pulled by ten mule teams. The freighters loaded up with water, hay, and grain on the two day trip up to the mine, and carried ore on the return to the river. It was a disagreeable job that few men kept for long [Love 1974].*

It was partially the lack of water and other harsh environmental conditions that also contributed to the fact that few permanent settlements were established around these mining claims, especially those where the mineral veins ran out. Today there are few physical remains of most of the mining camps—once the veins ran out and the mines were abandoned, the settlement features went into rapid decay—those that were useable, were scavenged:

*When a guy would leave a mine, they'd go and bring everything in and peddle it to the next guy. Most of the stuff ended up at the Post Office or it was scavenged [U.S. Fish and Wildlife Service 1986].*

### MILITARY LANDSCAPES

Military landscapes develop and change either abruptly (usually provoked by war, depression, or technological advances in weaponry, communications, or transportation) or incrementally (in peacetime from a desire to improve the military quality of life) (King and Peyton 1991). Rarely do military installations evolve as civilian communities, with a progression of change over time. Military landscapes are affected by five primary factors (Kreger 1985, 1988).

- The primary mission of the base—Military property is generally classified into one of four functions: defense, logistics, administration, or testing/training. The continued performance of one or more of these functions is the single most important force which shapes the landscape and each requires a unique spatial arrangement.
- Established military policies of social stratification—Officers and enlisted personnel are routinely quartered in spatially separate areas and residential patterns developed along those lines.
- Utilitarianism—Utilitarianism is characterized by the military's distaste for waste. It creates uncomplicated designs and, with few exceptions, has been the hallmark of military planning.
- Isolation—This factor relates to the need to isolate and separate installations from the surrounding community. Isolation is enforced through the use of remote locations, fences, and controlled-access gates.
- Centralization—The need to express the presence of authority is demonstrated in the built environment of military landscapes by the placement of the most powerful decision-makers at both the symbolic, and usually, geographic center of the base.

In addition, one of the primary functions of military planners and builders from the earliest years has been to provide standardized construction plans. A standardized plan is defined as one that is used at more than one post, either as a result of a formal, organized program, or because plans have been passed back and forth in an informal manner. This planning concept existed as early as the Civil War and grew to be an established program by about 1890. From that time, a long series of designs began to appear for housing, barracks, headquarters, recreational facilities, hospitals, warehouses, chapels, and many other types of facilities commonly found on military bases. The concept also extends to designs for overall site layouts and landscaping techniques with a combined effect that has caused American military installations to develop with a uniform character that is reflected in uniform building types and layouts. Functionally, military bases are small, self-sufficient communities linked by a common goal: national defense (King and Peyton 1991).

It is readily apparent from a review of historical photographs and an inspection of YPG that its development has followed the general development principals that are common to most military installations. Military settlement of the YPG area was initially based on the need for an expansive, unpopulated area in which to conduct desert environment training and testing for World War II troops and equipment. The region was chosen for its inhospitable climate and rugged terrain and encampments were purposefully sited so as to be without amenities and to be self-sufficient.

After World War II, the installation's focus changed from a small outpost with the emergent and pressing need of supplying troops and testing equipment for war, to the establishment of a permanent military reservation. It was at this point that military planners began to develop the installation into the ranges and cantonments that have been used continuously to the present.

In addition, this installation has also taken advantage of the unique terrain and climate for the continued performance of its missions.

- The primary mission of the base—Testing/training is the primary mission that has shaped the YPG landscape. The vast open ranges encompassing nearly 900,000 acres are interrupted by only a few settlements and only one of these is focused on administration, housing, and recreation.
- Established military policies of social stratification—Within the Main Administrative Area, Army has designated spatially discrete housing areas—officers and non-commissioned officers in the Colorado Housing area and enlisted personnel in the Ironwood Housing area. Based on availability, non-commissioned officers and officers may be assigned to the same area. Civilian and contractor employees live in both areas. The two areas are at opposite ends of the cantonment and are separated by community, medical, and administrative services and open space.
- Utilitarianism—As described in Section 3.4, the architecture of YPG displays no complex, unique, or ornate style. All facilities are utilitarian in appearance with clean, straight, unadorned lines.
- Isolation—YPG is situated in one of the most inhospitable portions of southwestern Arizona. Surrounded on three sides by federal, nonmilitary lands (BLM and U.S. Fish and Wildlife), the closest civilian community of any size is the city of Yuma, approximately 25 miles away. A few ranches and farms are scattered around its boundary.

- Centralization—Because of the large size of YPG and the nature of the missions on the ranges, the primary administrative functions of the installation are not located in the geographic center of the installation. However, the ROC, which houses the critical administrative functions for the installation is the focal point of the Yuma Test Center and is the only two-story building within that cantonment.
- Standardized Construction—Many of the buildings and structures at YPG are readily recognizable as standardized construction or based on standardized designs. These would include all of the housing units in both the Colorado and Ironwood housing areas, as well as Building 2 (a typical World War II “U-shaped” headquarters building), and a number of buildings in the Main Administrative Area that are of standardized barracks design.

### **3.6 PREVIOUS CULTURAL RESOURCES INVESTIGATIONS**

The following text provides a brief discussion of the prehistoric and historic archaeological investigations conducted at YPG through 2010. The information is based on previous archaeological literature and records searches (Hoffman 1984; Peyton 2006; Schaefer 1989), supplemented by additional literature and records research conducted by YPG and contractor personnel for this revision of the ICRMP. Literature and record searches for this ICRMP were performed at YPG and on the AZSITE records database. As part of preparation of previous iterations of the YPG ICRMP, records searches were also conducted at the USACE, Los Angeles District; the Arizona State Museum; the Yuma BLM; and the San Diego Museum of Man.

This summary is not intended to be comprehensive or to detail all of the findings of each survey—that level of detail can be found within the individual survey reports listed in Appendix H, nearly all of which are on file at the YPG Cultural Resources office. A map showing surveyed areas of YPG is provided in Figure 3-20. This figure also shows designated munitions impact areas and/or areas of historic munitions contamination; some of these areas have been and can be subjected to archaeological survey and some of which cannot be entered. Appendix I lists the archaeological sites recorded through the end of 2010; site records for YPG are on file at the YPG Cultural Resources office. As of the end of 2010, approximately 157,233 acres (636.3 square kilometers) had been subject to inventory survey, approximately 18.75% of the total YPG area.

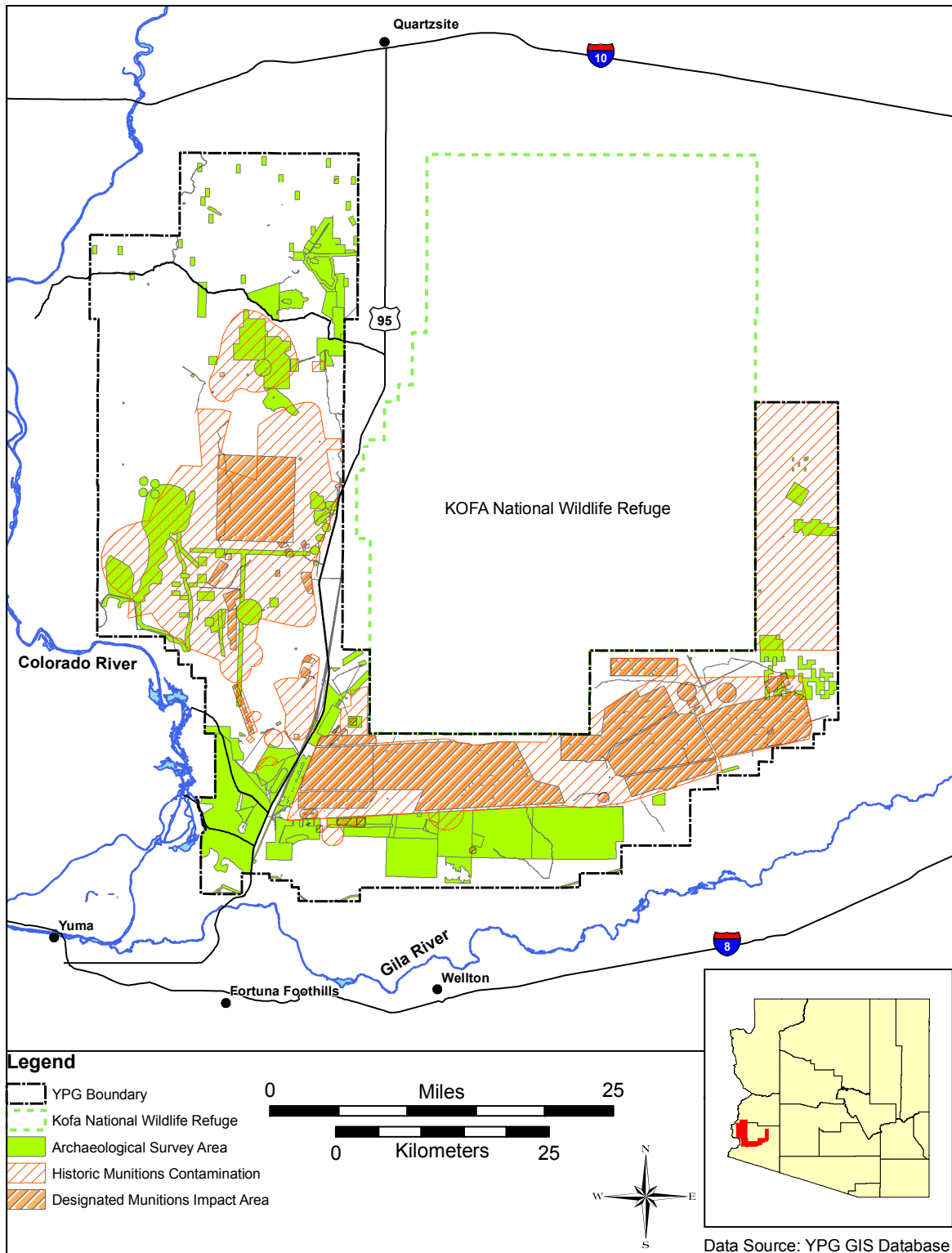


Figure 3-20. Archaeological Survey Areas at U.S. Army Yuma Proving Ground



### 3.6.1 Archaeological Investigations, 1920s to 1989

The first archaeological investigations of the YPG area were undertaken by Malcolm Rogers in the 1920s through 1950s. As is the case with all of the survey work done in the YPG area prior to 1980, Rogers' surveys were either "purposive" investigations of previously known sites (i.e., no systematic sampling techniques and no defined spatial boundaries) or examinations of prime habitats where sites were expected to occur (e.g., natural water tanks, major washes, trail systems). In an attempt to trace the eastern extent of the San Dieguito and Yuman cultures, Rogers recorded 12 sites within the area now encompassed by YPG. Among these is the White Tanks area, which is eligible for listing in the National Register as an archaeological district (Schaefer 1993). Rogers visited White Tanks at least six times between 1938 and 1956 and was the first person to make the site known to the archaeological community; his campsite is a contributing feature to the district (Figure 3-21). Data retrieved from the sites recorded by Rogers have been used to develop the prehistoric chronological sequence that, in modified form, is still used today. Rogers' original notes, sketches, and plans are archived at the San Diego Museum of Man—a copy of some of these documents is also on file in the YPG Cultural Resources office.

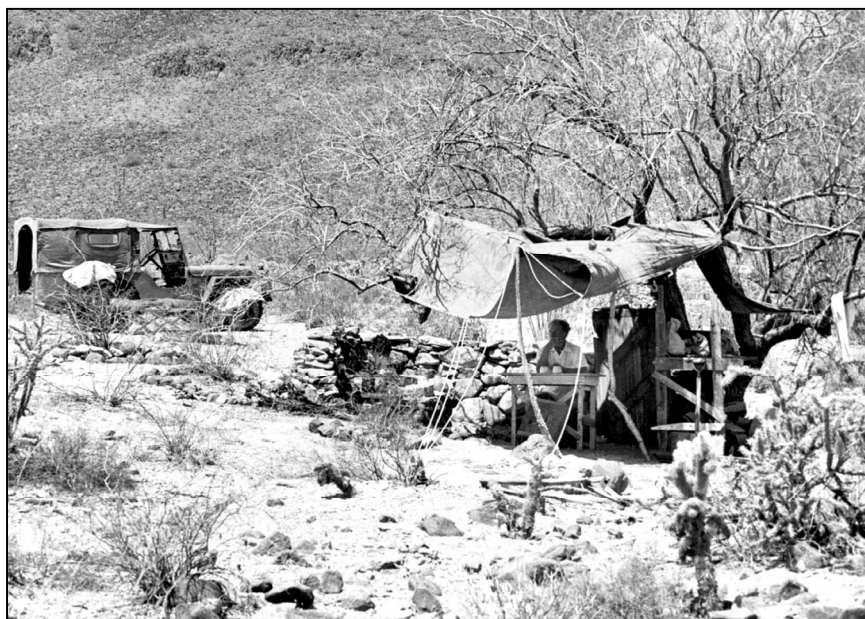


Figure 3-21. Malcolm Rogers' Campsite at White Tanks, ca. 1950 (Source: San Diego Museum of Man)

#### NATIONAL PARK SERVICE SURVEYS

In 1952, a large reconnaissance survey of the lower Colorado River was undertaken by William Schroeder for the National Park Service. As a part of the survey, Schroeder also conducted a general overview of the western side of the North Cibola Range. Several ceramic-bearing sites were recorded and, from the samples collected, Schroeder developed a revised prehistoric ceramic typology and chronology based on Rogers' earlier work.

### ***OTHER INVESTIGATIONS***

Following Schroeder's effort, very little archaeological work was done in the YPG area for almost 30 years. However, a few scattered surveys were conducted (e.g., Johnson 1981; Mann 1983; Swarthout and Drover 1981), including reconnaissance-level inventories of representative archaeological sites for YPG and surveys that traversed parts of YPG as part of other projects (e.g., Effland and Green 1983). Swarthout and Drover's (1981) survey was a general overview of lower Colorado River prehistory, updating the previous efforts by Schroeder and discussing alternative settlement subsistence models that might be applied to Colorado River-based hunters and gatherers or horticulturalists.

### ***BLM SURVEYS***

One of the largest survey efforts was conducted for the BLM by Mann (1983). This survey covered at least eight 0.25-square-mile parcels, for a total of 1,280 acres, scattered across the installation. The survey was largely intensive, rather than reconnaissance-level, and identified numerous sites. The purpose of the survey (to identify zones of varying archaeological sensitivity to a variety of YPG mission impacts) was two-fold: re-examination of Malcolm Rogers' previously recorded sites and the testing of a predictive model through random sample survey. The first task identified 149 sites. No survey report was produced, but detailed site records were prepared and are on file at YPG. The largest concentration of sites was recorded along a 2-mile stretch of Mohave Wash, where numerous cleared circles, rock rings, and chipping stations were identified. In all, approximately 40 sites were documented and others are believed to be in the near vicinity (Schaefer and Jacobson 1989).

The Tule Springs area was also investigated in 1983 by Mann. This site consists of a spring, a natural tank, temporary camp sites, and some well-preserved petroglyphs. Two thirds of this site (containing the spring and some of the petroglyphs) is on BLM land—the remaining portion of the site (containing the tank, the camp sites, and additional petroglyphs) is on YPG land (Schaefer and Jacobson 1989). Detailed sketches and a National Register nomination form were prepared for this site, but were not finalized or submitted for listing.

Additional foci of the Mann survey included parts of the Gila-Kofa Trail, White Tanks, Obsidian Basin, Socket Tanks, the Colorado-Gila Trail, Tyson Wash, and numerous other site complexes along major trails and wash systems. All of these areas were investigated in non-systematic surveys that demonstrated the abundance of archaeological remains to be found at YPG.

The second task of Mann's survey effort, that of defining areas of varying site density and significance, produced results that were suggestive, but inconclusive. A description of the complications and difficulties with this phase of the survey can be found in the Schaefer and Jacobson (1989) report. One important conclusion was that highly sensitive sites might be expected to occur in unexpected environmental zones that would otherwise be rated as not sensitive.

### ***WESTEC SURVEYS***

Between 1985 and 1988, WESTEC Services conducted five surveys at YPG—three on the South Cibola Direct Fire Weapons Ranges, one on the Laguna Army Airfield, and one re-evaluation of sites on the Mohave and Gould washes (Effland and Schilz 1987; Effland et al. 1987, 1988; Schilz and Clevenger 1985; Schilz et al. 1988). WESTEC's work for the US Army Corps of Engineers began a new era of cultural resources management at YPG that focused on intensive

systematic surveys of specific delimited project areas. In total, the five surveys identified 216 sites or loci and encompassed more than 6,000 acres across the installation.

This work confirmed that people typically utilized local chalcedony, quartz, and rhyolite cobbles found on desert pavement for making stone tools. It also led subsequent researchers to support the idea that late prehistoric Yuman groups practiced floodplain horticulture and that the ratio of cultigens to wild species likely varied considerably depending on flood conditions on the Colorado River (Schaefer 1989). Finally, the work raised the possibility that the low density of sites in the Laguna Army Airfield might be due to sand dunes that have covered aboriginal habitation surfaces (Schaefer 1989); that suggestion has not been confirmed, however, and depends on the ages of the dunes (cf. Bullard et al. 2011).

#### ***BRIAN F. MOONEY ASSOCIATES SURVEYS***

In 1988, Brian F. Mooney Associates continued the program of intensive survey begun by WESTEC Services. Six surveys were conducted between 1988 and 1989 (Elling and Schaefer 1988; Schaefer 1988; Schaefer and Cook 1988; Schaefer and Jacobson 1989), with 147 additional sites being identified over a 7,834-acre area. Most of these surveys were conducted on the flat alluvial basins of the Cibola Range and in the interior basin region of the La Posa Plain; however, a few were in mountainous areas near the Gila River and in the North Cibola Range. The last survey conducted was that in the White Tanks area in the early 1990s (Schaefer et al. 1993).

Results of the two surveys conducted for the TEXS project in the North Cibola Range (Elling and Schaefer 1988; Schaefer 1988) produced unexpected results. These included the discovery of more than 10,000 pieces of debitage and related cores and bifaces in a region predicted to produce little more than dispersed lithic scatters and occasional cleared circles and the discovery of a unique late prehistoric or ethnohistoric milling complex of ceramics and numerous manos and metates. The latter site is believed to be the result of the exploitation of mesquite or paloverde bosques.

The third survey, a random sample survey of 1,483 acres in the Cibola Direct Fire Weapons Range (Schaefer and Cook 1988) contained 70 sites and 15 isolated artifacts. For this survey, the 1,483 acres was divided into two sampling strata based on surface topography—Stratum I included all sample units (a total of 70 percent) in which more than 50 percent of the total area was flat alluvial terraces or large washes. Stratum II included all sample units (a total of 30 percent) in which more than 50 percent of the area contained steep slopes and interior washes. A comparison of the two strata proved that site density and variability was greater in the areas closest to the primary washes.

The last of the Mooney Associates surveys was completed in 1989. This survey was a stratified random sample survey within a 100,000-acre project area of the North Cibola Range. Twenty-six 50 acre parcels were randomly selected from four environmentally defined sample strata—intermountain washes, mountain foothills, Colorado River terraces, and the La Posa Plain inland basin. Forty-one sites and 29 isolates were recorded, including two highly significant rockshelter complexes (Schaefer and Jacobson 1989).

### 3.6.2 Archaeological Investigations, 1989 through 1999

Between 1989 and the end of 1999, nearly 80 archaeological surveys of YPG lands were completed, primarily by Northland Research, Inc. (between 1991 and 1994), Gutierrez-Palmenberg, Inc. (between 1994 and 1998), and Statistical Research, Inc. (in 1999).

#### *NORTHLAND RESEARCH SURVEYS*

The most notable of the surveys conducted by Northland Research, Inc., include an inventory completed for the relocation of the Jefferson Proving Ground to YPG in 1992 (Dosh and Marmaduke 1992), an inventory of the Target Recognition Range in lower Yuma Wash in 1993 (Dosh and Marmaduke 1993), and an inventory of the Mobility Test Areas conducted in 1995 (Dosh and Marmaduke 1995). The survey for the relocation of the Jefferson Proving Ground encompassed 7,937 acres and recorded 203 prehistoric and historic sites and 68 prehistoric isolated occurrences. Of these, the prehistoric sites were predominantly cleared areas on desert pavement, rock rings, and small lithic and ceramic scatters. The research value in these sites enabled the development of a means of relatively dating the remains based on patterns of feature morphology, deposition, and general condition. The historic sites were few and consisted of a campsite (hearth and trash scatter) and names spelled out with stones. The former is likely associated with early mining days in the area (ca. 1930s), the latter with World War II troop activities. Neither historic site contains sufficient information to make an absolute determination (Dosh and Marmaduke 1992).

Intensive survey of the lower Yuma Wash encompassed approximately 40 square miles (13,700 acres) and identified 286 prehistoric sites and 388 isolates. The project area was located just inside the west edge of YPG, west of the Chocolate Mountains—the wash flows between the Chocolate and Trigo mountains. Identified site types ranged from isolated artifacts (e.g., flaked stone, ground stone, ceramics) to features numbering in the tens to over a hundred (e.g., cleared circles, rock rings, petroglyphs, trails, artifact scatters). Diagnostic artifacts indicate occupation of the Yuma Wash over a 3,000- to 5,000-year period, with the most intensive use suspected of occurring in the last 1,500 years (Dosh and Marmaduke 1993).

Northland's survey of the Mobility Test Areas encompassed approximately 17,200 acres (Dosh and Marmaduke 1995). The majority of the work was conducted between U.S. Highway 95 and the Colorado River; however, a single area approximately 30 miles east of U.S. Highway 95 was also investigated. More than 1,100 isolates and 246 sites (39 historic) were recorded during this survey, including the historic site of Camp Laguna (containing 21 separate components). The types of prehistoric sites recorded included cleared circles, rock rings, other types of rock features (e.g., fire-cracked rock piles), trails, petroglyphs, and artifact scatters. Historic site types included the 21 features of Camp Laguna, 11 clusters of rock blinds (some associated with foxholes and small arms), and features associated with quartz prospecting. With the exception of the quartz prospecting site, all are believed to be military in origin (i.e., dated to between 1942 and the present).

#### *GUTIERREZ-PALMENBERG SURVEYS*

From 1994 to 1998, approximately 34 archaeological investigations were initiated at YPG. All were conducted in response to proposed new or changing activities at YPG and each has been accomplished and reported by Gutierrez-Palmenberg, Inc. A complete listing of these survey reports is provided in Chapter 9.0—all are on file at the YPG Cultural Resources office.

Of the Gutierrez-Palmenberg studies, approximately 10 encompassed areas over 200 acres—the remaining surveys were small and encompassed areas of 100 acres or less. Of the large surveys, two were enormous aerial surveys, one covering almost 18,000 acres of the Kofa Firing Range (Bentley and Walker 1996a), and the other covering approximately 180,000 acres of the North Cibola Range (Bentley and Walker 1996b). Both of these aerial surveys were conducted to assess general cultural resources distributions and densities so that YPG planners could assess the feasibility of future activities in those areas. Although hundreds of sites were noted during the two surveys, on-the-ground surveys have not been conducted to record specifics, ground truth locations, or determine potential significance.

Among the remaining large-scale surveys (200 acres or greater), one encompassed approximately 4,438 acres of the North Cibola Range and identified 36 sites (both prehistoric and historic) (Bentley 1996a); one encompassed approximately 2,233 acres of the Kofa Region and identified seven prehistoric sites (predominantly rock circles) (Bentley and Walker 1997); one encompassed approximately 1,542 acres of the North Cibola Range and identified seven sites (mostly chipping stations) (Bentley 1996b); and one encompassed approximately 424 acres of the Laguna Army Airfield and identified three sites consisting of fire-cracked rock and petrified wood (Bentley 1996c).

The remaining surveys were all small scale and all but six failed to identify archaeological resources of any type. The six surveys each identified one site—most consisted of flaked stone debris; one was a trail.

#### *ADDITIONAL SURVEYS*

In 1992, SWCA, Inc. conducted a survey along the El Paso Natural Gas Company's existing pipeline, a portion of which crossed YPG (McQuestion et al. 1992; Torres and Manygoats 1992). The survey encompassed a linear survey area from 100 to 400 feet wide (approximately 2,105 total acres, including work areas). Twenty-six sites were recorded during the survey; however, not all of these were within the YPG portion of the project area.

In 1999, Statistical Research, Inc. (SRI) conducted a Class III archaeological survey encompassing 9,902 acres within the Extended Combat Systems Maneuver Area, Kofa Firing Range (Altschul and Vanderpot 1999). The investigation identified 161 sites, including rock rings, rock cairns, cleared areas, artifact scatters, trails, multi-component sites, and one historic period mine. All 161 sites were recommended as eligible for inclusion in the National Register of Historic Places under a multiple property context with recommended treatment (mitigation of effects) to include setting aside seven areas for YPG mission avoidance.

### **3.6.3 Archaeological Investigations, 2000 through 2005**

From 2000 through 2005, approximately 20 cultural resources surveys were completed, resulting in the inventory of approximately 26,000 acres of YPG lands. The surveys were conducted by several different archaeological consulting firms, including Statistical Research Inc.; Archaeological Consulting Services, Ltd.; Northland Research, Inc.; Anteon Corporation; ASM Affiliates, Inc.; Desert Archaeology, Inc.; Archaeological Research Services, Inc.; and Logan Simpson Design, Inc. Noteworthy among the larger surveys are the following.

***NORTHLAND RESEARCH SURVEYS***

In 2000, Northland Research, Inc., completed a survey of 5,062 acres near Mohave Wash and Mohave Tanks in the Cibola Range, for a proposed zone of parachuted drops of equipment (Zyniecki 2000). A total of 41 archaeological sites were identified, including one previously recorded site; 252 isolated occurrences were also recorded. Fourteen sites were recommended as National Register-eligible, including the large and important Mohave Tanks Site (AZ R:11:90 [ASM], first recorded by Malcolm Rogers in 1938) and various other sites containing various rock features (circles, clusters, alignments, and ‘cleared areas’) associated with Patayan pottery and/or projectile points, prehistoric trail segments, rockshelters, petroglyphs, and evidence of historic mining operations. The remaining sites were recommended as potentially eligible because they lacked concrete evidence of their age or cultural affiliation, though the report noted their potential value to prehistory if the chronology of occupation could be verified.

Hart (2004) presented the results of a 1,344 acre survey in the northern Cibola Range, for the Joint Experimental Range Complex (JERC). Four sites were recorded, including small prehistoric artifact scatters with possible stone features considered to be temporary encampments, and one trash dump from a military training bivouac. None of which were considered eligible for the National Register.

***STATISTICAL RESEARCH SURVEYS***

In 2000, SRI conducted a sample survey of 5,395 acres within YPG’s Sense and Destroy Armor Program Limited User Test Area, and identified 28 prehistoric and historic sites and 347 isolated occurrences (Huber and O’Mack 2000). Site types included prehistoric rock rings, rock cairns and clusters, cleared areas, artifact scatters, trails and historic period mining camps and prospects, military camps and training sites, and the Palomas Road, which was first constructed in the 1890s. Of the 28 sites recorded, 14 were recommended as eligible for inclusion in the National Register with avoidance, including boundary staking and a reduced military exercise area, being the recommended treatment.

In 2001, SRI conducted a Class III survey of 2,644 acres within the former Roadrunner Drop Zone, and identified 11 prehistoric and historic archaeological sites (Douglass et al. 2002). Seven of the identified sites were recommended as eligible for inclusion in the National Register.

Vanderpot and Ahmet (2003) reported the results of a survey of 5,434 acres in Red Bluff Mountain, where a combat systems maneuver area was proposed. The survey resulted in the identification and recording of 96 sites and 544 isolates. The sites were predominantly prehistoric rock rings, lithic scatters (some with ceramics), trails, and a tinaja at Red Tank. The authors considered the sites to reflect primarily short-term hunting camps in the Red Bluff Mountain uplands. They recommended that all sites were eligible for inclusion in the National Register as a multiple-property nomination, and recommended avoidance of four main areas (containing 40 sites) and the boundary staking and avoidance of 16 other sites.

***ASM SURVEYS***

One survey conducted in 2004 by ASM Affiliates (Schaefer and Moslak 2005) identified 23 archaeological sites and encompassed 2,729 acres within the Yuma and Indian washes. Site types identified included one historic hearth, rock rings, cleared circles, chipping stations, and trails. Four sites were recommended as eligible for inclusion in the National Register.

#### *LOGAN-SIMPSON DESIGN SURVEYS*

Logan Simpson Design performed one large-scale survey of 1,016 acres for the Airborne Detection Range in the south Kofa Range (Breen 2005). The survey resulted in the recording of eight new sites: three prehistoric trail segments, three likely historic trail segments, one prehistoric artifact scatter, and one military training site. All were considered not eligible for listing in the National Register. Fourteen isolated occurrences were identified as well.

#### **3.6.4 Archaeological Investigations, 2006 through 2010**

During this latest five-year period of implementation of the YPG ICRMP, approximately 80 cultural resources inventories were conducted. The surveys were conducted by YPG archaeologists as well as archaeological consulting firms including Statistical Research Inc.; Archaeological Consulting Services, Ltd.; Northland Research, Inc.; Anteon Corporation; ASM Affiliates, Inc.; Desert Archaeology, Inc.; Archaeological Research Services, Inc.; and Logan Simpson Design, Inc. Among the larger surveys (exceeding 1,000 acres) are the following, by investigating organization.

#### *NORTHLAND RESEARCH SURVEYS*

Northland Research conducted several large-scale surveys within the past five years in various parts of YPG. One of these involved the Class III inventory of 2,346 acres for the JERC II Project in the north Cibola Range (Hopkins 2006). One new site and one previously recorded site were recorded, along with six isolated occurrences. The new site, AZ R:11:126(ASM), consists of several rock alignments, rock circles, low walls and cleared areas, thought to be related to military activities but lacking any artifacts diagnostic to age. The site was not considered eligible for the National Register. Another previously recorded site (AZ-050-1118) could not be relocated, but modern debris and ground disturbance suggested that the previously recorded site had been destroyed within the past 25 years.

A survey of the Hot Weather Test Complex in 2007 covered 3,032 acres in two separate locations for proposed construction of vehicle test tracks of the Hot Weather Test Complex, in the Cibola and Kofa Ranges (Hopkins and Carpenter 2007). A total of three new sites, along with three previously identified sites, were found, all of them considered not eligible for the National Register. A total of 62 isolated occurrences were identified as well. The newly-discovered sites included a small Patayan-age cleared circle and associated artifact scatter; and two historic-age can scatters and possibly associated rock features.

Another 2007 inventory survey, covering 1486 acres, examined proposed engineering test areas in four separate locations of the Cibola and Kofa Ranges (Carpenter 2007). Three archaeological sites and 42 isolated occurrences were identified in the four survey areas. A small historic camp site, a prehistoric lithic toolstone procurement and reduction station complex, and an extensive historic tin can and trash scatter were recorded. All are considered not eligible for the National Register.

An inventory survey of 1,747 acres in the Ironwood Drop Zone (Carpenter and Dosh 2007a), located west of the Middle Mountains and east of Indian Wash, resulted in the identification of two newly recorded and one previously recorded archaeological sites, as well as 135 isolated occurrences. The sites, all of which were considered not eligible for the National Register, included AZ R:15:260(ASM), which contains one circular clearing in the desert pavement and two pieces of flaked stone. AZ R:15:261(ASM) contains one small ring of stones, a toolstone

chipping station and one other flake. AZ R:15:19(ASM) had been previously recorded as consisting of individual chipping stations and isolated flakes, three cleared circles, two rock rings, and one trail segment.

A 2007 survey of an Airborne Detection Range was located in the Kofa Firing Range, north of the Muggins Mountains and south of Pole Line Road, encompassing 3,994 acres (Carpenter and Dosh 2007b). The inventory resulted in the documentation of twelve new archaeological sites and 62 isolated occurrences. Four sites contained one or more circular clearings and nearby artifacts. Two sites contained rock rings and associated artifacts. Six sites contained two to four clearings, without any associated artifacts. Of the 12 sites, two were considered to have sufficient information potential to be eligible for inclusion in the National Register – one of these a set of clearings associated with ceramics and the other a rock ring site associated with flaked stone artifacts, that might provide information about the sites' ages.

Another survey of the Hot Weather Test Complex in 2008 covered 2,270 acres of an area proposed for performance test areas in the Hot Weather Test Complex in the Cibola Range (Dosh 2008a). The inventory yielded eight new archaeological sites and two previously recorded sites. One of the new sites consists of a cleared circle associated with artifacts, one consists of a flaked toolstone workshop, and six consist of historic can dumps that date to the World War II era and are believed associated with Camp Laguna, the nearest components of which are located about two kilometers away. One previously recorded site has multiple cleared circles associated with artifacts and the other previous site consists of multiple trash pits and rock alignments of historic age. In addition, 196 isolated artifacts and features were also recorded. Three sites were considered eligible for listing on the National Register: a flaked stone workshop of yellow-brown jasper (petrified wood), and two cleared circles associated with artifacts. These eligible sites have artifacts that could possibly be used to derive relative dates for these and perhaps similar sites based on previous analyses of these types of artifacts and features.

Finally, Dosh (2008b) reported on a large survey of 3,583 acres west of Firing Front Road on the Kofa Range. This survey resulted in the identification of 23 sites (two of which were previously recorded) and 22 isolated occurrences. Eighteen of the sites and twelve isolated occurrences contained one or more cleared areas on desert pavement, some with apparent gravel rims. Of these cleared area sites, only one had artifacts nearby, a flaked stone core and flakes and a San Pedro projectile point. One site was a lithic scatter lacking any associated features. Three historic trash dumps and several sections of old US Highway 95 were also identified. The cleared area site containing the projectile point, AZ X:3:504(ASM), was considered to be “extremely important.” Many ‘cleared area’ sites are not associated with any artifacts, let alone time markers (see Section 3.8), therefore this site was recommended as eligible to the National Register. The segments of old Highway 95, AZ X:3:371(ASM), had previously been recommended as eligible to the National Register. All other sites were considered non-eligible.

#### ***ARCHAEOLOGICAL CONSULTING SERVICES (ACS) SURVEYS***

Beginning in 2010, ACS has reported the results of several large-scale surveys. An investigation of 5,860 acres of the JERC 1 and 3 facility, north Cibola Range (Wilcox and Rayle 2010a) resulted in the recording of six prehistoric sites (artifact scatters and rock features), 13 historic archaeological sites (roads, trash scatters, military features, and a mine), and a military campsite with a prehistoric pot drop. Eighteen of the sites were recommended as not eligible for the



National Register, while the eligibility of one site (a historic rock pile and sparse trash scatter) was considered unknown depending on the potential for subsurface deposits.

A survey of 3,094 acres of the Airborne Detection Range, Kofa Firing Range (Wilcox and Rayle 2010b) yielded 13 sites including four historic (a road and three trash scatters), five prehistoric (lithic scatters with and without rock features and a trail), and four sites of unknown affiliation including cleared areas and rock features. All sites were recommended as not eligible for the National Register.

Another survey, comprising 2,317 acres of the Unmanned Aerial Systems Complex south of Quartzsite (Wilcox and Rayle 2010c), resulted in 11 sites and 136 isolated occurrences recorded. Three prehistoric artifact scatters, a prehistoric trail, two historic roads, a corral, and three military training sites were identified, along with a possible multi-component site consisting of a petroglyph panel, mining prospect pits and a military training rock feature (infantry position). The trail was considered eligible for inclusion in the National Register, but all others were regarded as not eligible.

A survey of 1,797 acres for the Excalibur Complex (Wilcox and Rayle 2010d) yielded four sites and 66 isolated occurrences. The sites, two prehistoric artifact scatters and two historic roads, are not considered eligible for the National Register.

Finally, a survey of 1,433 acres of military training areas in the south Cibola Range (Rayle and Wilcox 2010) yielded seven sites and 39 isolated occurrences. Five of the sites are prehistoric, including a rock ring with lithic scatter, a stone quarry, a rock ring with but a single flake, a rock cluster, and a rock-lined cleared circle site. The prehistoric quarry (AZ X:3:529[ASM]) was considered eligible for the National Register because it could provide information on prehistoric stone tool procurement and manufacture in the region. The other sites were not considered eligible. Historic sites included a rock pile with associated trash and a military aircraft crash site. Neither of these sites was considered eligible, either.

### **3.6.5 Historic Buildings and Structures Inventories**

Three historic building evaluations have been conducted for YPG. The first was completed by Building Technology Incorporated for the Army Materiel Development and Readiness Command (DARCOM) in 1983-1984 (Brenner 1984). The purpose of this nationwide program was to bring the Army into compliance with the NHPA—it was initiated through an MOA between the National Park Service, the Department of the Interior, and the Army. The second evaluation (Bischoff 1999), an update to the DARCOM report, included 19 Cold War-era properties. The third building evaluation, conducted by JRP Historical Consulting (2009), inventoried a total of 104 buildings. As a result of these inventories, no buildings or structures are presently considered eligible for inclusion in the NRHP.

#### ***DARCOM STUDY***

The goal of the DARCOM evaluation (Brenner 1984) was:

- Completion of documentary research on the history of the installation and its properties.
- Completion of a field inventory of properties in the Main Administrative (Post) Area, the Yuma Test Center (at that time called the Mobility Test Area); the Laguna Army Airfield, and the Kofa Firing Range. The entirety of the installation was not investigated

because of the presence of only a small number of post-World War II utilitarian structures in areas outside the four main cantonments.

- Preparation of a combined architectural, historical, and technological overview for the installation.
- Evaluation of historic properties and development of recommendations for preservation of identified properties.

Objectives of the historical overview were to establish the periods of major construction at the installation; identify important events and individuals associated with specific historic properties, describe patterns and locations of historic property types, and analyze specific building and industrial technologies employed at the installation.

Based on information from the historical overview, buildings and structures were evaluated for historical significance in accordance with the criteria set forth in 36 CFR Part 60.4, and provided in guidance documents such as National Register Bulletin 15 (National Register of Historic Places Staff 2002). Properties were then further assessed for placement in one of five Army historic property categories as described in AR 420-40 (now superseded by AR 200-1). The categories used were.

- Category I—properties of major importance
- Category II—properties of importance
- Category III—properties of minor importance
- Category IV—properties of little or no importance
- Category V—properties detrimental to the significance of adjacent historic properties

Based on extensive review of the architectural, historical, and technological resources identified on Army lands nationwide, four additional criteria were utilized to help determine the appropriate category level for each YPG property. These criteria were used to assess the importance not only of properties of traditional historical interest, but of the vast number of standardized or prototypical buildings, structures and production processes that were built and put into service during World War II, as well as of properties associated with many post-war technological achievements (regardless of building age). The four criteria were often used in combination and include (Brenner 1984).

- Degree of importance as a work of architectural, engineering, or industrial design (e.g., workmanship, materials, functionality)
- Degree of rarity as a remaining example of a once widely used architectural, engineering, or industrial design or process (utilized with standardized construction and non-military designs)
- Degree of integrity of completeness (intactness)
- Degree of association with an important person, program, or event (significant associations)

After properties were placed into one of the five categories, each property within Categories I, II, and III, each property was assessed in terms of two additional criteria: structural condition and state of repair and potential for adverse effects to occur (e.g., demolition).

Results of the DARCOM report identified no Category I, II, or III properties at YPG; nonetheless, a number of buildings were documented in accordance with Level IV guidance

provided by the HABS/HAER division of the National Park Service. Level IV inventory cards were prepared for 15 individual buildings and three sets of family housing (i.e., 18 property types). The records are archived at the Library of Congress as HAER Record AZ-5 and a copy of each inventory card is on file with the YPG Cultural Resources office. The documented buildings include:

- Buildings 2, 104, 204, 309, 506, 515, 530, 1004, 2105, 3015, 3021, 3490, 3551, 3702, and 3725
- 142 Capehart Family Housing units (built 1959) (Buildings 1300-1470)
- 26 Family Housing units (built in 1957) (Buildings 800, 801, 804, 821, 823, 930, 932-934, 936-938, 940-944, 962, 964, 966, 968, 970, 972, 974, 976, and 978)
- 38 Family Housing units (built in 1948) (Buildings 802-820, 822, 824, 826, 828, 830, 832, 836, and 946-957)

### *SRI EVALUATION*

The goal of the 1999 SRI architectural evaluation was to update the DARCOM report (Bischoff 1999). The study assessed a total of 109 total buildings (some in groupings) under the Cold War historic context. The buildings were located in the Main Administrative Area, the Mobility Test Area (MTA), the Laguna Army Airfield area, and the Kofa Firing Range. All were built between 1948 and 1979.

The 1999 SRI evaluation recommended one building (Building 2, the old Post Headquarters Building) to be eligible for inclusion in the National Register. An additional group of 26 Military Construction-Army (MCA) Capehart-Wherry era residences designed by Robert Evans Alexander during his partnership with world renowned architect Richard Neutra (see Section 4.3.2) were also considered eligible. Consultation with the Arizona SHPO was initiated regarding the 26 Alexander and Neutra residences, but consensus on eligibility was not reached (JRP Historical Consulting 2009:69). In 2006-2007, some of the Capehart-Wherry era residences were demolished in compliance with the National Historic Preservation Act under the U.S. Department of the Army's Program Comment regarding that class of housing structures.

### *JRP EVALUATION*

The goal of the JRP evaluation was, first, to review the historic context of military structures located at YPG and, second, to evaluate 104 buildings and structures out of the total of nearly 1,300 numbered buildings and structures on the installation. (A large proportion of this total number of buildings and structures are ubiquitous utilities, electrical substations, pumphouses, parking lots, flagpoles, garbage sheds, etc., that are highly unlikely to hold any historical significance.) The evaluated structures, built from 1948 to 1964, were located in the Main Post (n=45), Yuma Test Center (n=27), Laguna Army Airfield (n=10), and Kofa Firing Range (n=22). Most played an administrative or personnel support role in military operations, including the old Post Headquarters (Building 2); a few were related to YPG's main testing and evaluation mission. Excluded from the evaluation were structures less than 45 years old (i.e., built after 1964), structures whose NHPA compliance was satisfied through Program Comment (Capehart-Wherry era housing, unaccompanied personnel housing, and ammunition storage), buildings in test and firing ranges, and the ubiquitous infrastructural and ancillary elements noted above that held little likelihood of historical significance.

Results of the investigation were that none of the evaluated buildings was recommended as eligible for inclusion in the National Register of Historic Places, either individually or as a contributor to a historic district. As noted in the report “Within the broader contexts of military RDT&E [research, development, test and evaluation] and Army materiel development during the Cold War era, however, it does not appear that any of the buildings treated by the current study meet the criteria for listing in the National Register” (JRP Historical Consulting 2009:73). One building might have met the significance criteria for its role in the development of the Department of Defense’s NAVSTAR global positioning satellite system, but it lacked the necessary historical integrity to qualify. “None of the other of the buildings at YPG evaluated under the current study played a direct, pivotal role in the development and ultimate success of a nationally-significant weapons platform, technology, vehicle, or other piece of military equipment” (JRP Historical Consulting 2009:73), and were therefore considered as not eligible. The Arizona SHPO has concurred with this finding, so no YPG buildings or structures are currently regarded as historic properties under the NHPA.

### **3.6.6 Traditional Cultural Properties and Properties of Traditional Religious and Cultural Importance**

As described in National Register Bulletin 38 (Parker and King 1998), a Traditional Cultural Property (TCP) is a place that represents “those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally, or through practice.” Examples of TCPs include:

- A location associated with the traditional beliefs of a Native American tribe about its origins, its cultural history, or the nature of the world
- A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice
- A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historical identity

Traditional Cultural Properties can also be properties of traditional religious and cultural importance (PTRCIs; see Section 101(d)(6) of the NHPA) to a Native American tribe, as are the first two examples above. Given the long-standing, rich, and varied Native American history associated with the installation, it is highly likely that some of the already recorded prehistoric archaeological sites would also be considered PTRCIs/TCPs or would contain such elements, and that others are present. White Tanks is considered a sacred place by affiliated Native American tribes, and it is likely that other notable site complexes (e.g., Mohave Tanks) or prominent physiographic landmarks (e.g., Castle Dome) would be considered PTRCIs. To date, several ethnographic studies for the identification, distribution, and density of TCPs have been undertaken at YPG, including the Yavapai-Prescott Indian Tribe, the Mojave Elders Group at the Colorado River Indian Reservation, the Quechan Indian Tribe, and three Chemehuevi tribes. Predictive modeling efforts previously focused on prehistoric archaeological resources have not been applied to PTRCIs/TCPs.

### 3.7 MODELS RELATING ARCHAEOLOGICAL SITE DISTRIBUTIONS TO LANDSCAPE AND ENVIRONMENTAL VARIABLES

The relationship of archaeological sites to elements of the natural environment at YPG has long been a subject of interest ever since the days of pioneering archaeologist Malcolm Rogers (1939). The development of such models focuses on identifying the types of resources present in a given area and then determining the relationships between resource types and easily identifiable features of the natural or cultural environment (e.g., elevation, drainage characteristics, transportation routes, vegetation) (King et al. 1977; Altschul 2007). From these observations it is sometimes possible to extrapolate to the entire area, with some degree of accuracy, where different types and numbers of sites, features, etc., might occur. This approach ideally allows certain areas to be prioritized regarding the expected archaeological site density and importance, which may be important for planning purposes on large installations such as YPG where 100% inventory survey coverage is neither feasible nor cost-effective and frequently also has physical or mission constraints (e.g., ordnance-contaminated areas). In an attempt to assist installation planners with proposed activities, several studies conducted over the past 20 years have either partially focused on predictive modeling or expanded or modified assumptions brought forth by earlier investigators (Mann 1983; Schaefer and Cook 1988; Dosh and Marmaduke 1992, 1993, 1995; Altschul 2007).

The first efforts towards a predictive survey were conducted by Mann for the BLM in an attempt to identify zones of varying archaeological sensitivity (Mann 1983; see Section 3.6.1). Through sample survey, Mann investigated sites previously investigated by Malcolm Rogers as well as a number of other sites and, in each case, linked the artifacts found to environmental conditions (e.g., relationship of site type and density to ground conditions) (Schaefer and Jacobson 1989). The survey applied some unorthodox field methods and sample procedures, however, that have been difficult to evaluate from Mann's brief survey report. In addition, given the small sample size (within an enormous sampling universe) the results were inconclusive and were used only as preliminary indications of site distributions.

The primary focus of Mann's effort was to test a model of regional sensitivity for resources. In the model, site density was seen as the major criterion for assessing sensitivity; however, although site density might be generally useful for decision-making purposes, it does not take into account where National Register-eligible properties might or might not occur. Nonetheless, based on this model, Mann proposed eight explicit assumptions for assigning areas to varying sensitivities. High site densities, variability, and the potential for significant sites were assumed to occur in areas with:

- Fine-grained volcanic rocks for making stone tools (rather than metamorphic rocks such as granite, schist, or gneiss)
- Low habitable slopes rather than steep slopes
- Proximity to major washes rather than minor washes
- Narrow valleys rather than wide valleys
- Varying slopes rather than uniform slopes
- Desert pavements rather than other areas
- Aboriginal trails and routes of travel
- Springs and tanks

Applying a somewhat complicated combination of these criteria, Mann identified 1,317 sections of YPG to which he assigned a provisional rating of either low, moderate, high, or very high archaeological sensitivity. A random sample of each of the four classes was then selected to test the sensitivity determinations. Limited time allowed for only eight sections to be tested—a number that is too low to be statistically representative. Also, to save time, Mann surveyed only 25 percent of each of the eight sections intensively; the remainder of each section received non-systematic inspection (Schaefer and Jacobson 1989).

Results of this first predictive survey effort were suggestive but inconclusive. Half of the sections tested produced the number of sites predicted. Predictions for the remainder of the sections were incorrect, attributable to an inability to accurately predict micro-environmental conditions that favored prehistoric activities. Perhaps the most important conclusion drawn from Mann's study was that highly significant sites could be expected to occur across a varied landscape and in unexpected environmental zones, not typically thought to be sensitive for archaeological resources (Schaefer and Jacobson 1989).

In 1995, as part of a historic preservation plan, Gutierrez-Palmenberg used the BLM survey data as well as other archaeological data to further explore the relationship of YPG prehistoric cultural resources sites to the YPG natural environment (Miller 1995). The study used the data from 1,240 sites. Of those site records containing pertinent information, the results indicated that cultural resources sites on YPG tend to occur in places displaying certain environmental conditions (elevated positions, nearby water, vegetation cover, food/medicine sources). A majority of sites were found to occur between 200 and 800 feet in elevation; other relationships are shown in Tables 3-1 through 3-3. These results illustrated general patterns of distribution of known sites in relation to important environmental variables. However, whether the patterns were significant departures from random distribution could not be determined, because the proportional distribution of the environmental variables was not known.

**Table 3-1. Frequency of Sites by Most Prominent Topographic Feature (from Miller 1995)**

TOPOGRAPHY	NUMBER OF SITES
Terrace	455
Ridge	353
Flat near Wash	209
Mountain Base	61
Hilltop	32
Floodplain	24
Basin	3
Desert Tank	2

**Table 3-2. Frequency of Sites by Soil Type (from Miller 1995)**

SOIL TYPE	NUMBER OF SITES
Sand, Silt, Gravel	235
Desert Pavement	155
Gravel and Cobbles	17

**Table 3-3. Frequency of Sites by Vegetative Community (from Miller 1995)**

TOPOGRAPHY	NUMBER OF SITES
Sonoran Desert Scrub	366
Creosote-bursage/Cacti	188
Creosote-bursage/Cacti/Tree	128
Creosote-bursage	128

Altschul (2007) presented another attempt toward modeling the distribution of prehistoric archaeological sites at YPG in relation to environmental variables. This ‘predictive model’ approach sought to use geographic information system technology and various regression models to ‘predict’ variation in archaeological site distribution based on certain environmental variables, including landform, soils slope, aspect of slope, elevation, vegetation, annual precipitation, distance from washes and ridges, distance from the Colorado River, and other variables thought to be important for prehistoric settlement decisions. Despite a sophisticated approach to data analysis, the resulting patterns were, according to the investigators, “extremely weak” (Altschul 2007:155). In part, this disappointing result may have been the product of the archaeological site data sets they used, which included site records of widely variable quality that had accumulated over decades of investigations. Better control of the content and distributions of site data inputs is clearly warranted. Altschul (2007) reported better results in modeling the locations of prehistoric trail systems, using least cost terrain models.

Finally, a sensitivity model has recently been developed that assesses the relationship of archaeological sites with particular landscape variables, and considers these relationships in light of geomorphic processes (Bullard et al. 2011). Bullard and colleagues used a subset of archaeological sites that were accurately mapped to derive information about landform, distance to wash, elevation, slope, and aspect, and used a non-parametric classification technique to distinguish those variables that could best sort site locations from randomly-generated ‘non-site’ locations in the surveyed areas at YPG. They also examined the differences in locations between historic and prehistoric sites.

Briefly, Bullard and colleagues find relatively strong relationships in the distribution of archaeological sites and landform types and ages (alluvial fans, alluvial plains, active washes, pediments, bedrock exposures, etc.), parent material type, elevation, and less strong relationships with variables such as slope, aspect, distance to wash, etc. Tables 3-4 through 3-6 present their results of site locations in relation to landform variables (as of April 2010, when these tables were compiled). The data sets used by Bullard et al. (2011) are the most accurate and comprehensive accounting of site locations at YPG to date. The classification tools used appear to be a novel and useful way to show the relationships between site locations and environmental variables in the YPG region. More investigations on the site location-environment relationship are warranted, particularly incorporating chronometric and functional information for prehistoric sites. Such investigations will prove valuable from both management and archaeological research perspectives.

Table 3-4. Archaeological Sites<sup>a</sup> in Relation to Landform

Landform	Installation Area in km <sup>2</sup> (%)	Surveyed Area in km <sup>2</sup> (%)	Prehistoric (% of all prehistoric)	Historic (% of all historic)	Prehistoric /Historic (%)	Unknown (%)	Total of Sites (% of all)	Sites per Surveyed Area (km <sup>2</sup> )
Mountain Highlands	903.3 (26.6%)	45.7 (7.9%)	165 (9.5%)	24 (25.0)	3 (15.8%)	1 (16.7%)	193 (10.3%)	4.2
Inselberg	21.8 (0.6%)	2.0 (0.3%)	14 (0.8%)	2 (2.1%)	2 (10.5%)	0	18 (1.0%)	9.0
Pediment	41.1 (1.2%)	12.6 (2.2%)	20 (1.1%)	1 (1.0%)	0	0	21 (1.1%)	1.7
Badlands	40.7 (1.2%)	26.5 (4.6%)	130 (7.4%)	0	1 (5.3%)	0	131 (7.0%)	4.9
Qf0 (oldest) Alluvial Fan	43.8 (1.3%)	2.0 (0.4%)	7 (0.4%)	0	0	0	7 (0.4%)	3.5
Qf1 Alluvial Fan	549.2 (16.2%)	129.2 (22.4%)	508 (29.1%)	14 (14.6%)	6 (31.6%)	0	528 (28.3%)	4.1
Qf2 Alluvial Fan	860.1 (25.4%)	164.8 (28.6%)	712 (40.8%)	28 (29.2%)	6 (31.6%)	4 (66.7%)	750 (40.2%)	4.6
Qf2e Alluvial Fan	7.0 (0.2%)	4.6 (0.8%)	17 (1.0%)	0	0	0	17 (0.9%)	3.7
Qf3 Alluvial Fan	127.5 (3.8%)	25.7 (4.4%)	48 (2.7%)	4 (4.2%)	0	1 (16.7%)	53 (2.8%)	2.1
Qf4 (youngest) Alluvial Terrace	18.3 (0.5%)	7.2 (1.3%)	4 (0.2%)	1 (1.0%)	0	0	5 (0.3%)	0.7
Active Wash	485.9 (14.3%)	101.3 (17.6%)	80 (4.6%)	13 (13.5%)	1 (5.3%)	0	94 (5.0%)	0.9
Alluvial Plain	285.0 (8.4%)	52.7 (9.1%)	38 (2.2%)	9 (9.4%)	0	0	47 (2.5%)	0.9
Dune	6.7 (0.2%)	2.6 (0.4%)	3 (0.2%)	0	0	0	3 (0.2%)	1.2
<b>TOTAL</b>	<b>3390.4</b>	<b>576.9</b>	<b>1746</b>	<b>96</b>	<b>19</b>	<b>6</b>	<b>1867</b>	<b>3.2</b>

<sup>a</sup> Site counts current as of April 2010, as reported by Bullard et al. (2011).



**Table 3-5. Prehistoric Site<sup>a</sup> Types in Relation to Landform**

<b>Landform</b>	<b>Cleared Area/ Compressed Gravel</b>	<b>Rock Ring</b>	<b>Rock Align- ment</b>	<b>Rock Cluster / Other Rock Feature</b>	<b>Rock Shelter</b>	<b>Ceramic Scatter</b>	<b>Lithic Scatter/ Quarry</b>	<b>Trail Segment</b>	<b>Petro - glyph</b>
Mountain Highlands	3 (1) <sup>b</sup>	4	3	5	5 (2)	6	19 (5)	4 (2)	1
Inselberg	3	4					6 (3)		1
Pediment		1 (1)					1 (1)		
Badlands	21	1 (1)		7			28 (8)	1	
Qf0 (oldest) Alluvial Fan									
Qf1 Alluvial Fan	56 (5)	69 (7)	4	29		14 (1)	202 (97)	23 (1)	
Qf2 Alluvial Fan	204 (45)	104 (14)	7 (2)	43 (3)		27	200 (41)	38 (5)	2
Qf2e Alluvial Fan	7 (3)	2					3		
Qf3 Alluvial Fan	15 (2)	10	2	4 (1)		1	17 (5)	2	
Qf4 (youngest) Alluvial Terrace								1 (1)	
Active Wash									
Alluvial Plain	1	1				2	10 (7)	3 (3)	
Dune				1		1	1		
<b>TOTAL</b>	<b>310 (56)</b>	<b>196 (23)</b>	<b>16 (2)</b>	<b>89 (4)</b>	<b>5 (2)</b>	<b>51 (1)</b>	<b>487 (170)</b>	<b>72 (12)</b>	<b>4</b>

<sup>a</sup> Site counts current as of April 2010, as reported in the archaeological predictive model of Bullard et al. (2011). Only sites that are accurately or mostly accurately plotted are counted in this table. Individual sites may contain more than one site type (e.g., a cleared area, trail segment, and a lithic and ceramic scatter).

<sup>b</sup> Number of sites with a single site type is shown in parentheses.

**Table 3-6. Historic Site<sup>a</sup> Types in Relation to Landform**

<b>Landform</b>	<b>Military</b>	<b>Mining</b>	<b>Historic Artifact Scatter</b>	<b>Road</b>	<b>Rock Feature</b>	<b>Pit</b>	<b>Rock Shelter</b>	<b>Trail Segment</b>	<b>Tent Foun- dation</b>
Mountain Highlands	5 (3) <sup>b</sup>	5 (5)	1		2		1 (1)		
Inselberg	2 (1)	1 (1)							
Pediment									
Badlands									
Qf0 (oldest) Alluvial Fan									
Qf1 Alluvial Fan					2			1 (1)	1
Qf2 Alluvial Fan	6 (5)	2 (1)	4 (3)	1 (1)	2 (1)				1
Qf2e Alluvial Fan									
Qf3 Alluvial Fan									
Qf4 (youngest) Alluvial Terrace									
Active Wash			4 (3)			1			
Alluvial Plain	3 (3)		8 (7)					1 (1)	
Dune									
<b>TOTAL</b>	<b>16 (12)</b>	<b>8 (7)</b>	<b>17 (13)</b>	<b>1 (1)</b>	<b>6 (1)</b>	<b>1</b>	<b>1 (1)</b>	<b>2 (2)</b>	<b>2</b>

<sup>a</sup> Site counts current as of April 2010, as reported in the archaeological predictive model of Bullard et al. (2011). Only sites that are accurately or mostly accurately plotted are counted in this table. Individual sites may contain more than one site type (e.g., a cleared area, trail segment, and a lithic and ceramic scatter).

<sup>b</sup> Number of sites with a single site type is shown in parentheses.

### 3.8 SPECIAL CONSIDERATIONS: “CLEARED CIRCLES”

Among the most widely distributed and numerous features of the YPG landscape are areas on desert pavement surfaces where the underlying soil is exposed (often referred to as “cleared circles” or “sleeping circles”). Ranging in size from as small as 1 meter (3.3 feet) to as large as 8 meters (26.2 feet) in diameter, the features occur in desert pavement areas of the southwestern United States as areas where the overlying desert pavement is no longer intact. Cleared circles have been recorded in Arizona, southeastern California, southern Nevada, southwestern Utah and the Pinacate region of Mexico and are especially numerous on alluvial terraces adjacent to the Lower Colorado River Valley.

Based on archaeological and geomorphologic studies, YPG’s cleared circles are believed to have two distinctly different origins. These are:



Figure 3-22. Presumed Man-made Cleared Circle with Berm

#### *Deliberate Construction by Humans.*

This type of cleared circle has been produced by deliberately removing the hard desert pavement (scraped or brushed aside) to expose the soil beneath. Although there are other possible explanations (e.g., areas where wickiups were erected; dance areas), these types of circles are generally thought to be used as campsite features, most likely created for a more comfortable sleeping surface (Figures 3-22 and 3-23). Typically, there are very few artifacts associated with the circles that would confirm the function purpose for their construction (e.g., fire affected sand or rock; lithic concentrations).



Figure 3-23. Cluster of Presumed Man-made Cleared Circles

Results of a study jointly funded by YPG and the U.S. Army Research Office, Terrestrial Sciences Program, indicate that man-made circles typically have a pronounced berm or rim (greater than one layer of stones [clasts] high and sometimes accentuated with larger stones). Over time, the rims deflate, with some stones being scattered back into the circle by wind or water; however, the rim typically remains more than one clast high (Figure 3-24).

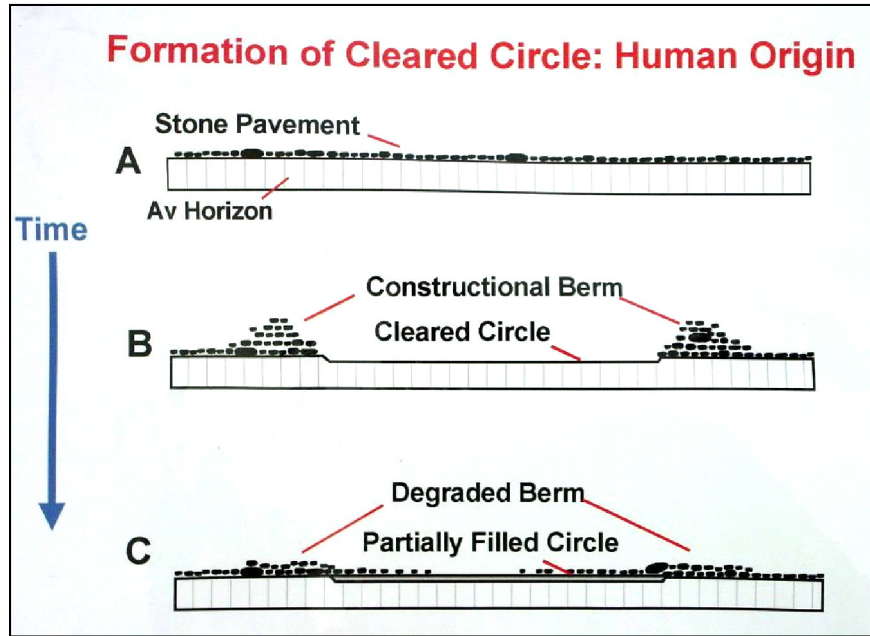


Figure 3-24. Formation of Man Made Cleared Circle (Source: Yuma Proving Ground and U.S. Army Research Office Terrestrial Sciences Program 1999/2000)

*Created by Natural Processes.* A model showing the processes by which this type of cleared circle develops is shown in Figure 3-25. This type of cleared circle has been produced by plant growth, vertebrate animal burrowing and natural processes and results from the long term interaction between large desert shrubs (most often creosotebush), active burrowing of small mammals and reptiles, and soil processes (Figure 3-26).

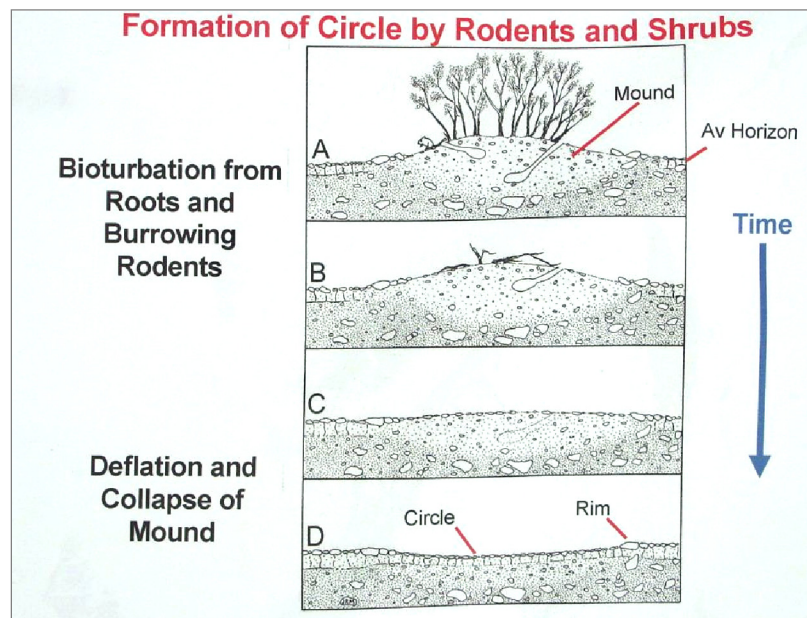


Figure 3-25. Formation of Naturally Occurring Cleared Circle (Source: Yuma Proving Ground and U.S. Army Research Office Terrestrial Sciences Program 1999/2000)

Characteristics of naturally occurring cleared circles are:

- A shrub growing in the desert pavement becomes surrounded by a mound of soil caused by animal burrowing. Desert pavement stones are pushed outward from the plant source.
- Plant death occurs from time, changes in environment, and animal activity.
- Woody plant material degrades, the plant mound deflates from wind, water, and collapse of burrows and root channels creating a depression.
- As the mound deflates, the stones displaced at the surface create a minimal rim/berm and new desert pavement forms. The rim is rarely more than one clast high.

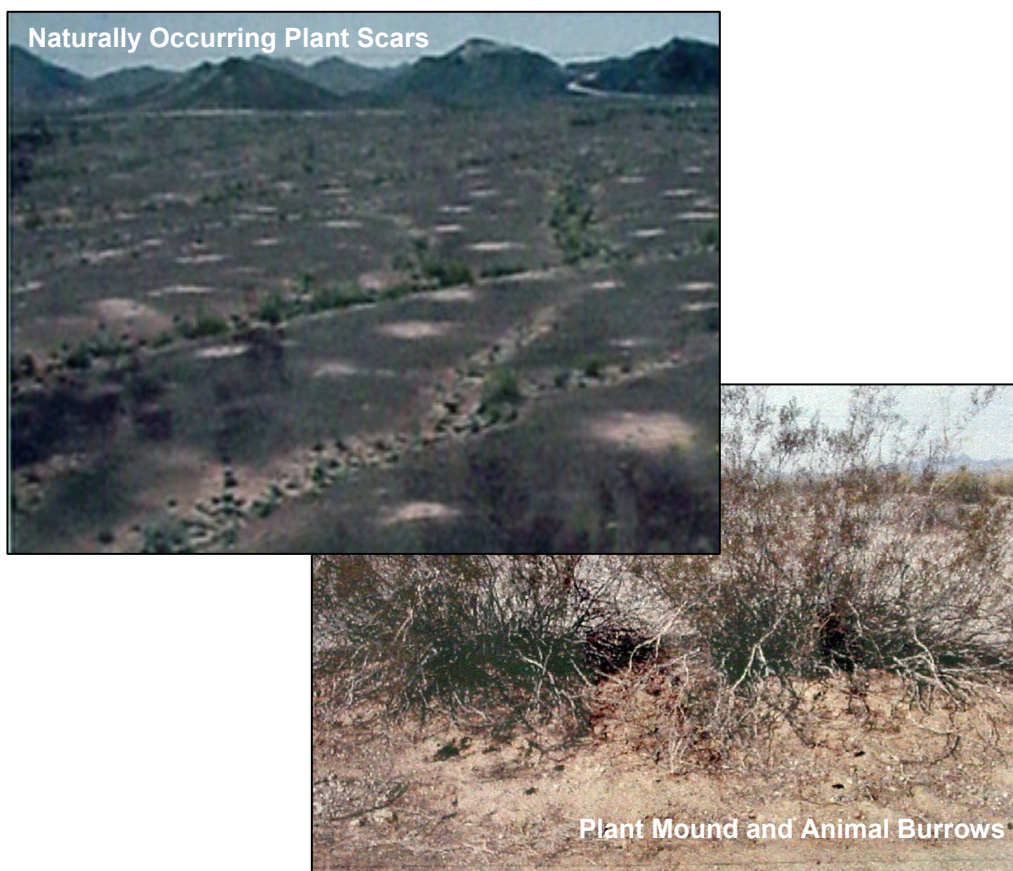


Figure 3-26. Naturally Occurring Plant Scars (Source: Yuma Proving Ground and U.S. Army Research Office Terrestrial Sciences Program 1999/2000)

The thousands of cleared areas at YPG are a concern for effective cultural resources management. Specific criteria that can be used to differentiate between man-made and naturally formed clearings are needed to avoid recording the latter as archaeological sites. While existing research makes a compelling argument for differences between the two types of cleared circle origins, professional archaeologists conducting investigations at YPG currently lack definitive guidance for determining which is which and necessarily use the most conservative approach for determining their origin. As a result, all recorded circles have been assumed to be of human construction for the purposes of Section 106 review.

Given the large number of identified circles and the significant impact this site type has on YPG missions and the management of cultural resources, YPG has supported additional systematic investigations to develop specific criteria that can be used systematically by archaeologists to consistently verify the origin of cleared circles. These investigations are ongoing as of the writing of this ICRMP (McDonald et al. n.d.). Preliminary results of these investigations are presented in Caldwell et al. (2011).

### **3.9 PALEONTOLOGY**

Paleontological resources are scientifically significant fossilized remains, specimens, deposits and other such data from prehistoric, non-human life. Such resources include invertebrate fossils (i.e., animals without backbones such as clams, snails, corals), plant fossils (e.g., pollen grains, plant leaves and stalks, petrified wood), and vertebrate fossils (i.e., animals with a skeleton such as fish, sharks, whales, dinosaurs) (Walker and Ward 1992).

#### **3.9.1 Paleontological Remains at the Yuma Proving Ground**

With the exception of petrified wood and several isolated marine fossils (e.g., bivalves, sponges, corals), no paleontological remains have been found at YPG. Other paleontological features have been recorded within the region, however, including the remains of a mammoth found near the city of Yuma, a partial tusk found near Blythe, California, and several bone fragments discovered near Wellton.

During the Miocene, the region of YPG became part of the lower Colorado River extensional trough—a feature that extends as far north as Lake Mead. Sediments were deposited in this trough which now comprises the Cenozoic stratigraphic section for the region. Northward incursion of the Gulf of California is represented by the Bouse Formation, a fossiliferous layer of estuarine, lacustrine, and possibly marine sediments. Overlying the Bouse Formation are the Colorado River Pliocene-aged terrace gravels. Less than 5 million years in age, these gravels indicate that the Colorado River once flowed through the area of YPG, rather than along its present day, more westerly channel (approximately 6 miles to the west). Sedimentary deposits from the river (i.e., the river-derived sands and gravels) occur across the installation, some as much as 115 meters above modern river levels. Within portions of these sediments, there is a large deposit of petrified wood (Nations et al. 1998).

#### **3.9.2 Petrified Wood Investigation**

In 1994, a stratigraphic, sedimentologic, and paleobotanical investigation of the petrified wood in the terrace gravels at YPG was undertaken (Nations et al. 1998) using DOD Legacy Resources Management funding. Results indicate that the petrified wood found in the Colorado River sediments shows remarkable detail in its preservation and represents species that lived in the area of YPG during the Pliocene. Species identified include palm, walnut, and California bay laurel, all of which indicate environments much wetter than present day YPG area (Figure 3-27). Analysis of the wood indicates that silica in the form of quartz is the primary replacement mineral. Since there is no evidence for burial of the wood by silica-rich volcanic ash or lavas (the common agents of petrification), it is hypothesized that the petrification took place as silica-rich waters of the Colorado River moved through the cells of the wood (Nations et al. 1998).

Likely there were growths of trees in a once riparian habitat; the trees were inundated by ephemeral flooding, the trees in the backwaters became waterlogged, silica rich waters replaced the cell structure, and the river course changed, leaving the petrified woods and associated gravels. Over time the climate dried, the river receded to its present channel, and the debris



Figure 3-27. Petrified Wood Samples Collected at U.S. Army Yuma Proving Ground (Source: Nations et al. 1998)

deflated to the present desert surface. It is believed that the deposits were made during the first arrival of the Colorado River in the Yuma area and that the petrified wood is between 3.8 and 5.5 million years in age (Nations et al. 1998). The known distribution of the petrified wood at YPG is shown on Figures 3-28 and 3-29.

The petrified wood deposits from YPG are the only known occurrence in the region and provide the only means for interpretation of the paleoclimate in YPG during the Pliocene and the geologic history of the Colorado River (Figures 3-

28 and 3-29). It is believed that for such a maritime climate to have existed in the area of deposition during the Pliocene, the California Coast Ranges must not have been present to create the rain shadow effect that creates the current arid climate. Greater annual rainfall would have occurred (between 5 and 7 inches as opposed to the current 3 inches) during that time and cooler temperatures would have prevailed.

The closest and most thoroughly documented deposit other than that found at YPG is in the Anza-Borrego Desert State Park, California; those deposits are estimated to be between 2.8 and 4.1 million years old (Nations et al. 1998).

### 3.9.3 Protection of Paleontological Remains

Mandates for the protection of paleontological resources are few and guidance is largely indirect. The most notable of these include the Antiquities Act of 1906, the Historic Sites Act of 1935 (upon which the National Natural Landmarks Program is based), the AHPA of 1974, and, in the case of Army installations, AR 200-1 (see Section 2.0).

Because of the significance of the petrified wood deposits at YPG, there is considerable interest in ensuring its preservation and protection. In April 2004, the YPG Commanding Officer issued a written policy reminder regarding the illegal removal or disturbance of natural and cultural resources, including petrified wood. A copy of the letter is provided in Appendix J.

Predictive models for the general occurrence of paleontological remains across YPG have not been undertaken. However, surveys conducted for the occurrence of petrified wood (Nations et al. 1998) indicate that this feature is likely confined to the ancient floodplain of the Colorado River (see Figures 3-28 and 3-29). Evidence of petrified wood, or any other type of paleontological remains, has not been found at other locations within the installation boundary.

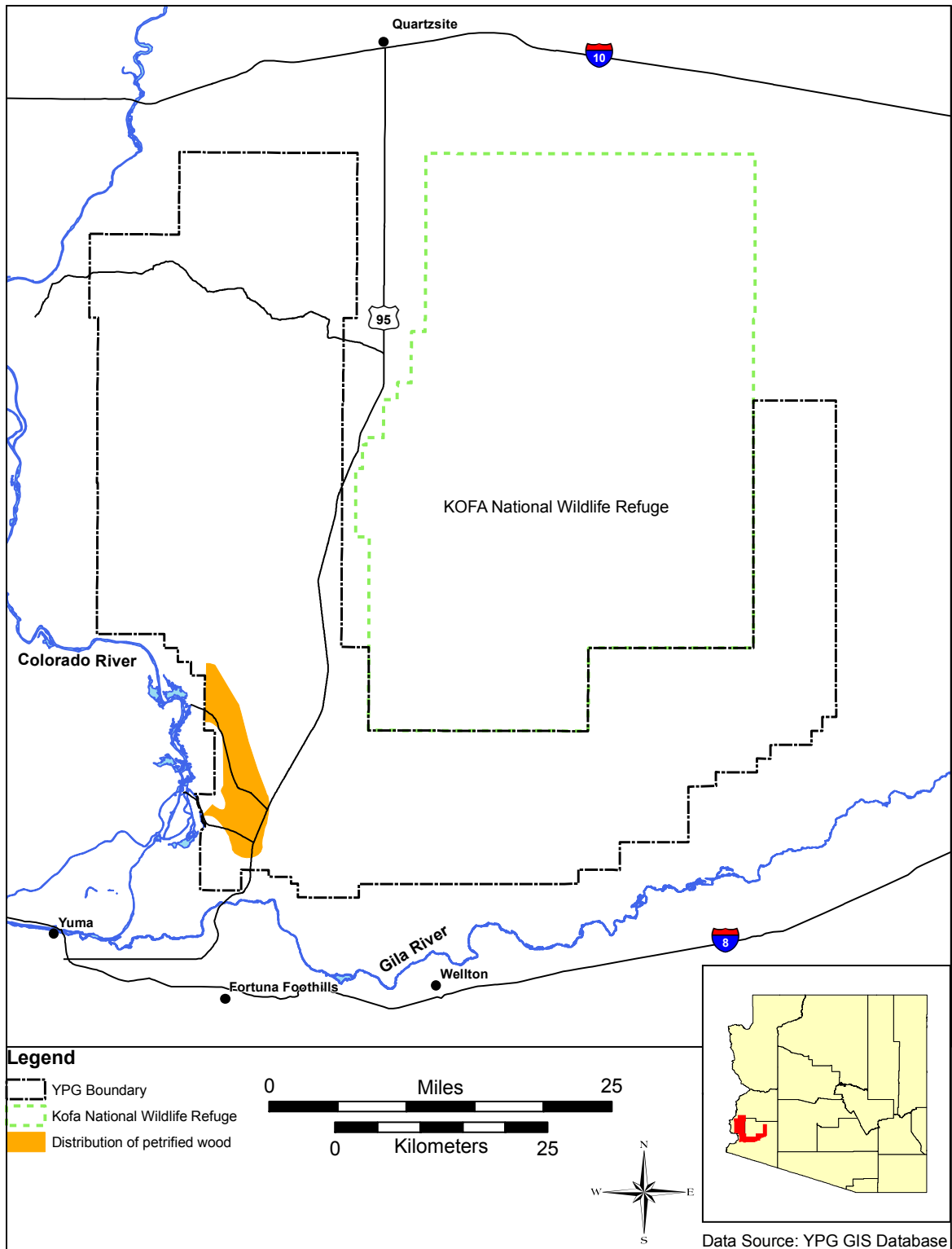


Figure 3-28. Known Occurrence of Petrified Wood at U.S. Army Yuma Proving Ground



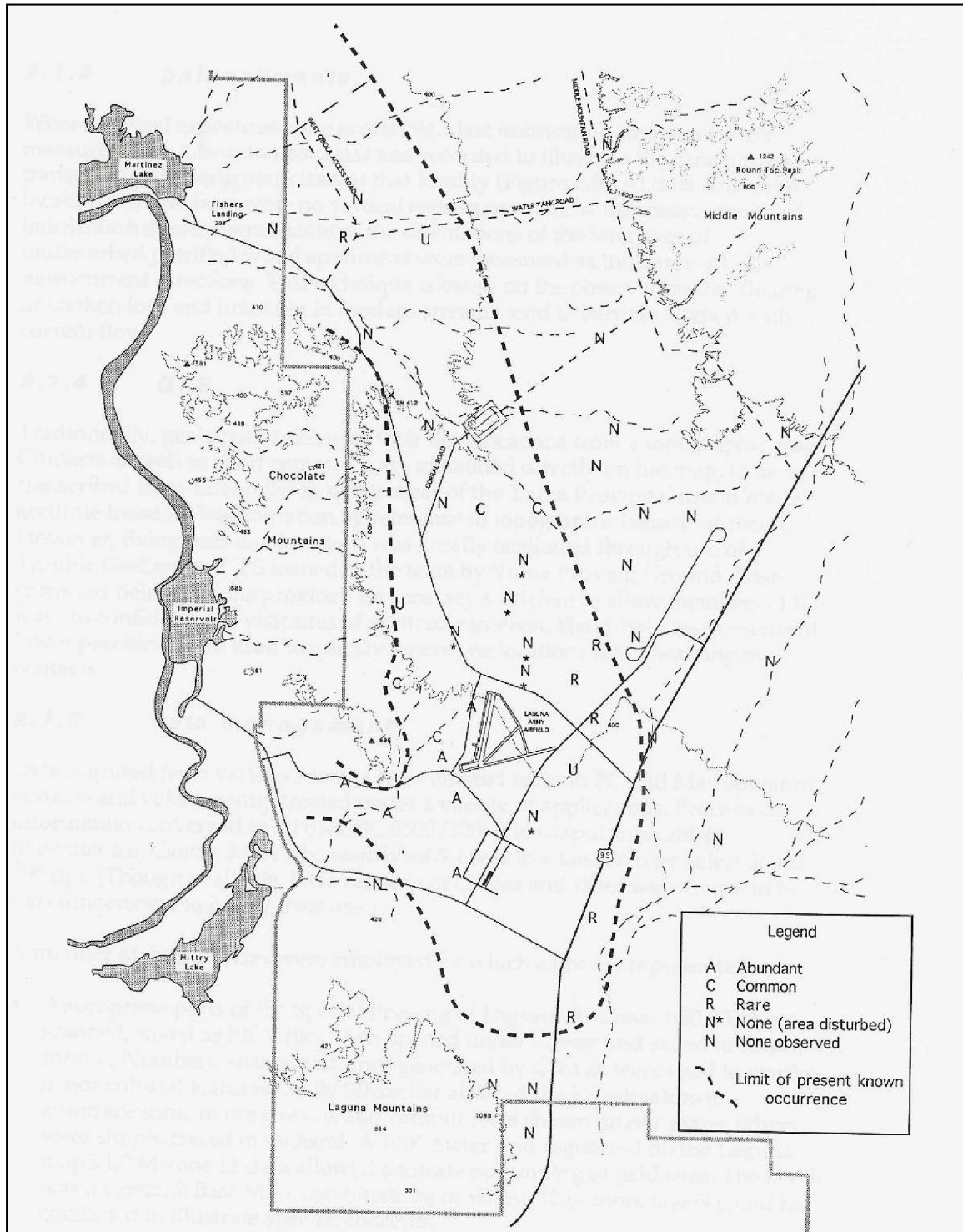


Figure 3-29. Distribution of Petrified Wood at U.S. Army Yuma Proving Ground (Source: Nations et al. (1998))

## **4. INVENTORY OF RESOURCES**

### **4.1 ARCHAEOLOGICAL DATABASE**

Appendix I provides pertinent information about all of the prehistoric and historic archaeological sites recorded at YPG between the 1920s through December 31, 2010. Because of the extent (and length) of the information available, Appendix I does not provide all of the extant data for each site (e.g., soil or vegetation associations)—additional detail can be found within the original database on file at the YPG Cultural Resources office. The database is linked to the YPG GIS mapping system.

The current database indicates which YPG archaeological sites have been determined eligible for inclusion in the National Register and have SHPO concurrence. Many properties remain unevaluated, and a number of these could have the potential to yield information important in prehistory under National Register Criterion D, by expanding our current understanding of the chronology, settlement, land use, and subsistence issues associated with the lower Colorado River prehistoric cultures. Some historic sites may also be eligible under Criterion D (e.g., mining sites) as well as demonstrating significance under National Register Criterion A, for their association with significant historical events (e.g., early mining in the Yuma region).

### **4.2 HISTORIC DISTRICTS AND THEMATICALLY-RELATED PROPERTIES**

A review of survey reports and correspondence files between YPG and the Arizona SHPO reveals that the following archaeological districts or thematically-related properties are likely to be eligible for inclusion in the National Register, though they have not been formally listed as eligible historic districts.

#### **4.2.1 White Tanks Management Area**

The White Tanks Management Area encompasses 2,069 acres on the northeastern flank of the Tank Mountains. Forty-six sites have been recorded within the Management Area, including a large multi-component residential base complex (quarries, habitation areas, trails, and several rock art clusters); seven open air temporary camps; 11 rock shelters; one major trail network (with associated pot drops); 13 chipping stations; one rock alignment; and the historic research camp of Malcolm Rogers. All of the sites contribute to an archaeological district, possess excellent integrity, and are either eligible for inclusion in the National Register under National Park Service Criterion D or B (for Malcolm Rogers) (Schaefer et al. 1993; Arizona State Parks, State Historic Preservation Officer 1990, 1996). A National Register registration form was completed in 1993 for the district (Schaefer 1993). Owing to current U.S. Army policy regarding nomination of properties (AR 200-1, Chapter 6.4(b)(9); see Appendix A), there are no plans to submit the form for formal registration (M. McDonald 2010, personal communication). A site management plan, initiated in 1997 (Earth Tech, Inc. and Affinis 1997), has been revised and approved by the Real Property Planning Board; it is waiting public review via the NEPA process and final administrative approval before issuance (M. McDonald 2010, personal communication).

### **4.2.2 Camp Laguna**

The remains of Patton's IV Armored Corps division camp, Camp Laguna was originally recorded by Northland Research, Inc., in 1995. The focal point of the camp is situated along Imperial Dam Road, approximately 1.25 miles west of Highway 95. Remains of the camp are found in 21 separate components (designated components A through U) and consist of numerous, parallel rock-lined walkways; rock outlined foundations; rock insignias; tent foundations; and assorted camp debris (e.g., nails, cans, wood platforms, coins, buttons, dog tags, tent stakes, first aid items). Portions of the northern area of the site have been disturbed by modern YPG activities; however, the extent of the disturbance cannot be determined because large areas are covered by windblown sand. To protect the site, YPG has posted warning signs and re-routed test vehicle access around the site (Smithwick and Bentley 1995). In addition, the installation's outreach efforts have included a brief description of the camp located at the Wahner E. Brooks Memorial Exhibit kiosk that includes cautions about disturbing the remains. Although a formal determination of eligibility has not been officially consulted on with the Arizona State Historic Preservation Office, USAG YPG and the SHPO agree that Camp Laguna is been eligible for listing on the National Register of Historic Places under Criterion D (Arizona State Parks, State Historic Preservation Officer 1995; Letter from Ann Howard, Senior Archaeological Compliance Specialist, Arizona SHPO to Robert [sic] T. Martin, Garrison Manager, November 1, 2010). The site has been recently re-surveyed and a historic and archaeological context, management plan, and programmatic agreement are being produced as part of the same project currently underway.

### **4.2.3 Direct Fire Range**

In 1992, as a part of the BRAC relocation of the Jefferson Proving Ground to YPG, Northland Research, Inc., surveyed a 5,652 acre parcel near the Muggins Mountains. The survey identified 54 sites, each of which was clustered within 1 of 5 different physiographic settings and represented 5 distinct cultural manifestations (Dosh and Marmaduke 1992). The five areas have been proposed as five separate archaeological districts and include:

- Red Bluff Pediment District
- Red Bluff Basin District
- Muggins Basin District
- Upper Basin District
- Gila Watershed District

Neither a formal determination of eligibility nor a National Register registration form has been prepared for the five proposed archaeological districts within the Direct Fire Range. However, correspondence between YPG and the Arizona SHPO indicates that the SHPO believes the sites to be eligible for inclusion in the National Register (Arizona State Parks, State Historic Preservation Officer 1991).

### **4.2.4 Ammunition Storage, Handling, and Testing Facilities**

During the survey for the relocation of the Jefferson Proving Ground to YPG, Northland Research, Inc., also investigated a 2,223 acre parcel associated with the Ammunition Storage, Handling, and Testing Facilities (ASHTF).

Twenty sites were recorded and four distinct patterns identified. Unlike the Direct Fire Range, which associated sites with physiographic settings, the ASHTF clusters were more related to spatial distributions of artifacts (Dosh and Marmaduke 1992). The four areas have been proposed as archaeological districts and include:

- Castle Dome Plain District
- Castle Dome Wash District
- 9-Alpha North District
- 9-Alpha East District

Neither a formal determination of eligibility nor a National Register registration form has been prepared for the four proposed archaeological districts within the ASHTF; however, correspondence between YPG and the Arizona SHPO indicates that the SHPO believes the sites to be eligible for inclusion in the National Register (Arizona State Parks, State Historic Preservation Officer 1991).

#### **4.2.5 Extended Combat Systems Maneuver Area**

In 1999, SRI conducted a survey of 9,902 acres in the south-central portion of YPG to support the Army's need to conduct various types of munitions, air-delivery systems, and tracked vehicle testing (Altschul and Vanderpot 1999). The survey identified 160 prehistoric or protohistoric sites, 493 prehistoric or protohistoric isolated occurrences, and one historic period mine. Site types included rock rings, rock cairns and clusters, cleared areas, trails, and sites with multiple features. All 161 sites were determined eligible for inclusion in the National Register, representing seven thematically-related property types defined within the context of multiple- and single-property nomination formats (i.e., under the NHPA, a multiple property designation).

#### **4.2.6 Red Bluff Range Combat Systems Maneuver Area**

In 2003, SRI conducted a survey of 5,434 acres in the south-central portion of YPG to support the establishment of the Combat Systems Maneuver Area (Vanderpot and Ahmet 2003). The survey identified 96 prehistoric sites and 544 prehistoric isolated occurrences. All 96 sites, encompassing five site types (including rock rings, cleared areas, and trails) were determined eligible for inclusion in the National Register as thematically-related property types (i.e., under the NHPA, a multiple property designation).

#### **4.2.7 Miscellaneous Potentially Eligible Archaeological Areas**

Additional archaeological areas of YPG that may possess sufficient significance and integrity to be potentially eligible for inclusion in the National Register include (M. McDonald 2010, personal communication):

- Mohave Tanks (potential district)
- Mohave Wash (potential district)
- Yuma Wash (potential district)

### **4.3 HISTORIC BUILDINGS AND STRUCTURES**

Several historic architectural surveys of YPG buildings and structures have been completed (Bischoff 1999; Brenner 1984; JRP Historical Consulting 2009). As of 2010, no historic

buildings or structures are considered eligible to the National Register of Historic Places (JRP Historical Consulting 2009). Previous studies (Bischoff 1999) had recommended Building 2 (old Post Headquarters/YPG Heritage Center), as eligible for inclusion in the National Register; however, a detailed historic context study completed in 2009 showed that it did not have the requisite historic importance to mission-related activities to warrant that recommendation (JRP Historical Consulting 2009). In addition, an enclave of 26 military residences had also previously been determined eligible for inclusion in the National Register, but these buildings fall within the Program Comment for Capehart-Wherry constructed Army residences, and no further compliance measures are required for them. The following sections briefly describe these buildings.

#### 4.3.1 Neutra and Alexander-Designed Residential Buildings

These buildings were constructed by Arrow Construction Co. of Yuma, Arizona using a design drawn by Robert Evans Alexander, partner of the internationally renowned architect Richard Joseph Neutra. Originally including buildings 800, 801, 821, 823, 930, 932-934, 936-938, 940-944, 962, 964, 966, 968, 970, 972, 974, 976, and 978, each residence is wood frame with stucco exterior and has a built-up roof covered with gravel

The dwellings display several configurations, including two-bedroom duplex, three-bedroom duplex, one-bedroom duplex and three-bedroom single units. Most dwellings have screened porches attached to the rear façade. Shortly after completion, carports and small storage rooms were added. Since that time, roofs were replaced in 1960 and there have been interior upgrades for modernization; however, in 2010, the remaining buildings appear essentially as originally constructed (Figures 4-1 through 4-3). Buildings 800, 801, 930, 932, 934, 936, 938, 940, and 941 were replaced with new construction in 2006.

*Robert Evans Alexander.* Robert E. Alexander (1908-1992) was a respected planner and top architect in the United States. He had a firm belief in affordable housing, in particular with houses clustered around green spaces, and designed several Los Angeles residential housing landmarks. Other projects designed by Alexander while a partner with Neutra are the visitors' center, museum and cyclorama at the Gettysburg National Historic Park, the Petrified Forest



Figure 4-1. Main Post, Yuma Test Station ca. early 1960s (Red Boundary encompasses the Neutra and Alexander-designed houses completed in 1957)

Community in Arizona, the Los Angeles County Hall of Records, and the American Embassy in Karachi, Pakistan (Folkart 1992).



Figure 4-2. Building 944 at YPG, Neutra and Alexander Designed Residence (Source: McDonald 2011)



Figure 4-3. Building 976 at YPG, Neutra and Alexander Designed Residence (Colorado Housing Area/3-BR/Type A/O5, W5) (Source: <https://www.housing.army.mil>)

*Richard Joseph Neutra.* Richard J. Neutra (1892-1970) is considered one of the world's most influential modern architects. Born in Vienna, Austria, Neutra and his wife Dione immigrated to the United States in 1923 and by 1929 had settled in Los Angeles, California. Inspired by the work of Frank Lloyd Wright, Neutra's innovative and open designs announced the arrival of an important new architectural vision that employed an extensive use of glass to allow indoor and outdoor spaces to flow freely together, sharp angles, deep overhangs, flat roofs, and a carefully arranged landscape (Figure 4-4). This residence is typical of the Richard J. Neutra architectural style. Note the design similarities with YPG Buildings 944 and 976 (see Figures 4-2 and 4-3). A journalist once described his work as “. . . the most amiable relationship between science, technique, industrialization and good taste. . .” (<http://www.socalhistory.org/Biographies/neutra.htm>).



Figure 4-4. Grace Miller House, Palm Springs, California  
(Source: <http://www.library.ucla.edu>)

*The Case Study House Program.* The Case Study House program was an exceptional, innovative event in the history of American architecture and remains to this day unique. The program, which concentrated on the Los Angeles area and oversaw the design of 36 prototype homes, sought to make available plans for modern residences that could be easily and cheaply constructed during the postwar building boom caused by the end of World War II and the return of millions of soldiers. The program ran from 1945 until 1966 and, while not all 36 designs were built, most of those that were constructed were either built in Los Angeles or formed the basis of buildings constructed in other areas (e.g., YPG, Fort Huachuca).

The program's chief motivating force was Arts & Architecture editor John Entenza, a champion of modernism who had all the right connections to attract some of architecture's greatest talents such as Richard Neutra, Charles and Ray Eames, and Eero Saarinen. Highly experimental, the program was designed to re-define the modern home, and thus had a pronounced influence on architecture - American and international - both during the program's existence and even to this day (Taschen 2010). The Neutra and Alexander houses at YPG are believed to have been based on a design from this unique program, which was ultimately an element of the Capehart-Wherry era MCA program.

### **4.3.2 Tournalayer Residential Buildings**

The original 38 houses (802-820, 822, 824, 826, 828, 830, 832, 836, 946-957) on YPG were cast concrete two-bedroom houses that were manufactured on-site using a large "Tournalayer" machine that was pre-fabricated by LeTourneau Industries to make the final product (Figures 4-5 through 4-9; Johnson 2006). This type of building appears to be relatively rare in the United

States, with possible extant examples in five other locations (Dale Hardy, Le Tourneau Industries, personal communication with Meg McDonald March 19, 2008). All units have had interior rehabilitation, replacement roof joists, window replacement, and added sheds, but retain their character on the exteriors. Buildings 822, 824, and 826 have a stucco bedroom and bathroom addition as well that was added prior to the mid-1960s. Buildings 802-819 and 946-957 have been demolished. Buildings 820, 822, 824, 826, 828, 830, 832, and 836 remain as of September 2011.



Figure 4-5. Aerial View of Newly Constructed Tournalayer Houses, ca. 1948 or 1949



Figure 4-6. Tournalayer Machine Approaching Interior Building Frame with Form

### 4.3.3 Program Comment for Capehart-Wherry Era (1949-1962) Army Family Housing

In May 2002, the Council issued a Program Comment for all Capehart and Wherry Era (1949-1962) Army housing. The Program Comment included the Neutra and Alexander and Tournalayer residences located at YPG and provides a one-time, Army-wide NHPA compliance action for all maintenance and repair; rehabilitation; layaway and mothballing; renovation; demolition; and transfer, sale or least of this type of Army housing. As a result, no further consultation of the residences is required. The text of the Council's Program Comment is provided as Appendix D.

In addition, at the request of the Arizona SHPO, original as-built drawings for the Neutra and Alexander residences have been rehabilitated and archived with the U.S. Army Corps of Engineers, St. Louis District and at the YPG Department of Public Works.



4. INVENTORY OF RESOURCES



Figure 4-7. Tournalayer Machine Lowering Form Over Interior Building Frame

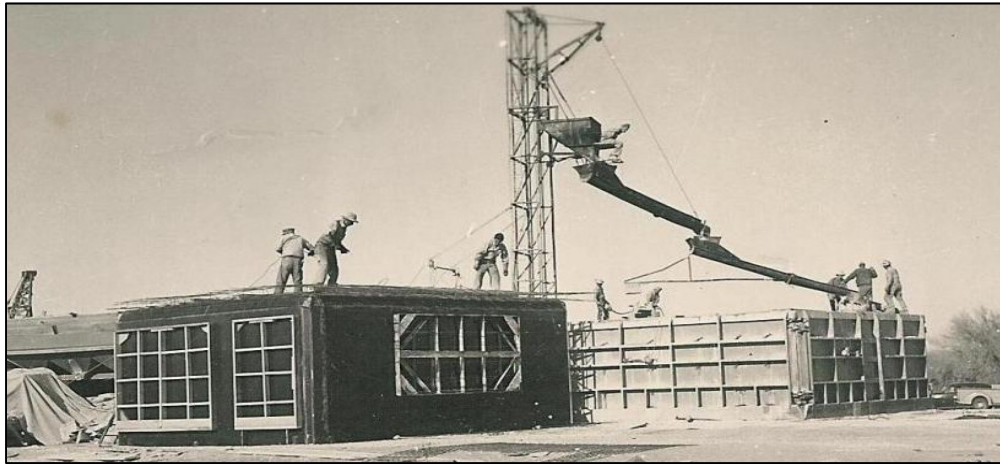


Figure 4-8. Pouring Cement Inside the Building



Figure 4-9. Building 820, Yuma Proving Ground, Tournalayer Residence (Source: McDonald 2011)

#### **4.4 PROPERTIES OF TRADITIONAL RELIGIOUS AND CULTURAL IMPORTANCE AND TRADITIONAL CULTURAL PROPERTIES**

Currently, YPG has identified no National Register eligible PTRCIs or TCPs, although some of the local Native American tribes have verbally indicated that the White Tanks area is a sacred place.

#### **4.5 PALEONTOLOGY**

The only paleontological site identified within the boundary of YPG is the large concentration of petrified wood located within the ancient floodplain of the Colorado River. Geologists who have investigated this site indicate that both the petrified wood and the Colorado River gravels within which it is associated are unique and pivotal to a fuller explanation of the geological history of the Colorado River and the desert southwest (see Section 3.9). The only other site of this kind is in the Anza-Borrego desert of southern California. Significant paleontological remains such as this can be evaluated and nominated for listing in the Registry of Natural Landmarks—criteria for significance determination are found in the Department of the Interior Standards and Guidelines described in 36 CFR Part 62.5.

#### **4.6 PLANS AND SCHEDULES FOR RESOURCE INVENTORIES**

To date, resource inventories for all classes of cultural resources at YPG have been conducted either in response to new or changing installation missions (e.g., construction of a new facility or range area) or as funding has allowed. Several studies (e.g., the petrified wood investigation) have been conducted with the use of funds provided by the DOD Legacy Resource Management Program. Future plans for resource inventories are expected to be conducted on the same basis as past studies; however, priorities set by the goals of this ICRMP may affect funding requests.

#### **4.7 UNDERTAKINGS WITH THE POTENTIAL TO AFFECT CULTURAL RESOURCES**

The principal mission of YPG is to plan, conduct, analyze, and report results of military materiel tests in development and production phases; review plans and monitor developmental testing conducted by developers, producers, and contractors; provide technical support, guidance, and services to federal agencies and branches of the military; and conduct operational testing and troop training exercises. Typical projects include munitions and weapons testing; tank and automotive testing; desert terrain testing; aviation systems testing (e.g., advanced rocket systems, helicopter systems); and an assortment of special projects. The nature of the majority of YPG missions and projects involve ground disturbance and, therefore, have the potential for adverse effects on cultural resources.

As program activities, locations, schedules, and funding become more clearly defined, these actions may be subject to additional cultural resources management review and agency consultation under both the NEPA and the NHPA. Although many of the planned actions have not received funding approval, they are a general indication of the types of projects proposed for YPG over the next 5 to 15 years:

- Military operations and resource management remain at comparable to those experienced for all functional units during the 5-year period from 2005 through 2010. Section 3.1 describes the types of missions previously and currently conducted at YPG.

- The nature of military operations will remain essentially unchanged; however the number of operations conducted will increase. Operational increases and potential future activities will include, but are not limited to:
  - Establishment of additional ground maneuvering and free-travel areas for both training and testing
  - Robotic testing
  - Hybrid or electric-powered vehicle testing
  - Increased troop training activities
  - Increased use of YPG's long-range firing capabilities
  - Increased use of live munitions in sensor testing activities.
  - Military operations are increased as noted above; however, construction or modernization of facilities to meet the requirements of specific missions or DOD units will be required. This could include, but not be limited to technical, administrative, and housing facilities.

## **5. MANAGEMENT PLAN**

### **5.1 OVERVIEW**

This portion of the ICRMP describes the objectives, priorities, staffing, policies, and methods that will be relied upon and used to accomplish the legal compliance requirements for the management of cultural resources on YPG. The cultural landscape management approach offers significant management advantages for an integrated management plan. Using this approach, spatial analyses of project-driven field inventories within specific project boundaries can predict potential cultural resource locations demonstrating inter-relationships that exist among known cultural and natural resources and document past military impacts to the area. Likewise, cultural resources on the installation will be managed within an installation-wide framework of interrelated landscape components brought together through GIS data layers of cultural, natural, and human-related information, rather than existing as a single unassociated entity. When completed, the sensitivity model under development will also aid YPG with cultural resources planning and management. The cultural landscape approach provides the overall framework for the ICRMP and future implementation of project-specific compliance actions.

### **5.2 CULTURAL LANDSCAPE MANAGEMENT APPROACH**

Cultural resources constitute essential and significant elements of ecosystems in which Army installations and their component activities exist and function. Planning and management of cultural resources, therefore, should occur within the context of a comprehensive and integrated land, resource, and infrastructure approach that adapts and applies principles of ecosystem management. This involves planning and management of cultural resources by reference to the landscape (i.e., the “Cultural Landscapes Planning Approach”). Principal components of this management approach are:

- The cultural landscape planning approach defines a “cultural landscape” as a geographic area that includes the collective cultural and natural resources features and the spatial relationships among those surface and subsurface features. Examples of natural features include terrain, habitat areas, and topography. Cultural features include archaeological sites, sacred sites, historic buildings, and the modern built environment. All of these natural and man-made features, including those related to military operations, are viewed as a series of surface and subsurface features that make up the installation’s cultural landscape.
- The cultural landscape planning approach focuses on the analysis of the spatial relationships among natural and man-made landscape features. Cultural and natural resources distribution maps can provide the data for systematic analysis of spatial patterning and land use through time. Factors such as elevation, slope, soil texture and drainage, vegetative cover, distance to water and proximity to roads, other transportation routes, and service centers have resulted in non-random patterns of human land use through time. These factors influenced the locations selected for prehistoric and historic settlement and activity areas.
- Distribution maps of cultural and natural resources locations, overlain with specific locations of military testing and training areas (including past, present and to the extent possible, future activities) will show a non-random pattern of distribution across the

landscape. Spatial analyses based on such distributions can indicate if the locations of cultural resources, natural resources, and military training and infrastructure improvement activities coincide. The coinciding distribution of cultural and natural resources and specific locations of military activities are important land management factors.

- Identification of the non-random patterns of land use is beneficial for compliance-related environmental documentation that requires future impact prediction (e.g., NEPA and NHPA documents). It is beneficial for the preparation of analyses for the consideration of alternatives, for impact avoidance, and in the development of training scenarios in a manner that avoids conflict with sensitive resources. Section 3.6 discusses the relationship of prehistoric, historic, and military resources to the natural environment of YPG. This type of specific spatial information allows predictive scenarios that aid in the management of the resources, and adds timeliness to compliance activities and the completion of mission objectives.
- The cultural landscape planning approach identifies military installations as an integral part of the landscape and attempts to identify interrelationships between the natural and cultural elements. This is accomplished by using GIS systems and multiple data layers to fully integrate ongoing installation efforts in cultural and natural resources with the military mission.
- The cultural landscape approach emphasizes the fact that installation natural and cultural resources may result from and obtain significance through the continuous military occupation and use of the land. The cultural landscape on YPG is unique because of its continued use for defense-related purposes and the influences to the landscape that result from these activities.
- The cultural landscape planning approach is most useful as an overall conservation planning strategy fully integrating cultural and natural resources and the military mission.

Cultural landscape as a planning approach should not be confused with “historic landscapes.” Historic landscapes are a type of historic property as defined in the NHPA. Historic military landscapes are architecturally designed landscapes associated with historic building districts in U.S. Army cantonment areas and are part of the larger cultural landscape.

The value of the cultural landscape approach to cultural resources evaluation and treatment is that a resource’s significance is not determined in isolation, but within the entire context of the landscape and interrelationships among its components. The cultural landscape approach allows greater flexibility in environmental impact analysis and the development of mitigation strategies in terms of trade-offs that can be negotiated when the linkages between cultural and natural resources are identified. The approach also allows for more informed and defensible decision-making.

### **5.3 GENERAL OBJECTIVES**

The basic objective of this ICRMP is to integrate the legal requirement for historic preservation with the planning and accomplishment of military testing and training, construction, and other mission essential activities, as well as real property and land use decisions at YPG. Specific objectives of this ICRMP are discussed below.

### **5.3.1 Compliance with Federal Preservation Law**

Yuma Proving Ground complies with all laws and regulations pertaining to the identification, management, and preservation of cultural resources. Chapter 2.0 of this document summarizes the federal statutes, regulations, EOs, and memoranda applicable to the management of cultural resources and the cultural resources management program on YPG.

### **5.3.2 Locate, Evaluate, and Protect Archaeological, Historical, and Sacred Sites**

In order to comply with those laws and regulations noted in Chapter 2.0, the Cultural Resources Manager must locate, evaluate, and protect historic properties and sacred sites on YPG. The Cultural Resources Manager gives priority to the evaluation of archaeological sites located in test and training areas and to develop protective strategies or mitigation measures for those sites eligible for nomination to the National Register. The Cultural Resources Manager must first determine if the proposed action is an undertaking and then determine the area of potential effect (APE) (see SOP #1 in Appendix K). The Cultural Resources Manager must then apply the criteria of effect and adverse effect to determine whether Army undertakings at YPG will affect historic properties. Planning such projects may proceed with the understanding that changes in design or delays may occur where mitigation must be applied as a result of consultation. The Cultural Resources Manager must consult in a timely manner with the Arizona SHPO concerning all undertakings that have the potential to affect historic properties not otherwise excluded by a PA or an MOA.

### **5.3.3 Contribute to the Body of Knowledge**

Valuable contributions to regional cultural resources data can be achieved through the analysis and synthesis of data collected on YPG. The dissemination of information on areas that, heretofore, may not have been included in the regional contexts adds to the richness and viability of that data.

### **5.3.4 Efficient Management Techniques**

It is incumbent upon the Cultural Resources Manager to conserve funds through the employment of more efficient management techniques and the initiation of mission-oriented evaluation procedures for archaeological sites and other cultural resources properties. The practicalities of accomplishing this at YPG will require the Cultural Resources Manager to be creative in the use of funds and time. The possibility of using and integrating information and technologies from other offices and databases on the installation should be explored.

## **5.4 ROLES AND RESPONSIBILITIES**

### **5.4.1 Garrison Manager Responsibilities**

The Garrison Manager's responsibilities are summarized in AR 200-1. The Garrison Manager:

- Is responsible for establishing a cultural resources management program by means of this ICRMP.
- Designates, as appropriate, a Cultural Resources Manager to coordinate the installation's cultural resources management program.

- Establishes government-to-government relationships with federally recognized Native American tribes. If there are significant Native American issues at YPG, the Garrison Manager should also designate an Installation Liaison for Native American Issues.
- Establishes a process that requires installation staff elements, supported components, and other interested parties to coordinate with the Cultural Resources Manager early in the planning of projects and activities to determine if any cultural resources are, or may be, present that could be directly or indirectly affected by a project or activity. These elements include training and testing activities, master planning, environmental impact analysis, natural resources and endangered species management planning and programming including INRMPS, and the Integrated Training Area Management program.
- Establishes funding priorities and program funds for cultural resource compliance.
- Serves as the “Agency Official,” as defined in 36 CFR Part 800 with responsibility for installation compliance with the NHPA.
- Serves as the “Federal Agency Official,” as defined in 43 CFR Part 10 with responsibility for installation compliance with NAGPRA.
- Serves as the “Federal Land Manager,” as defined in 32 CFR Part 229 with responsibility for installation compliance with ARPA.
- Serves as the “Federal Agency Official,” as defined in 36 CFR Part 79 with management authority over archaeological collections and associated records.
- Signs all NHPA PAs, MOAs, and NAGPRA CAs and Plans of Action after Major Command (MACOM) and HQDA comments have been addressed, and prepares National Register nominations for historic properties.

#### **5.4.2 Cultural Resources Manager Responsibilities (acting for the YPG Garrison Manager)**

The Cultural Resources Manager:

- Reviews all projects (e.g., MCA, job order contracts, training exercises) and DA 1391 (Military Construction Project Data) forms and determines the type and level of impacts to cultural resources.
- Prepares and implements, if appropriate, an installation-wide NHPA Section 106 PA in accordance with 36 CFR Part 800 to address and streamline NHPA compliance procedures for ongoing missions and operations activities that are “undertakings,” as defined in the NHPA. If a YPG-wide NHPA Section 106 PA is not appropriate, the Cultural Resources Manager, acting for the Commander, must ensure that NHPA Section 106 compliance procedures are followed for each undertaking. Those compliance procedures are outlined in 36 CFR Part 800, “Protection of Historic Properties,” the implementing regulations for the NHPA.
- Is designated as the Installation Liaison for Native American Issues. There have been no human remains found on YPG as of yet. However, if NAGPRA issues become relevant, the Cultural Resources Manager, acting for the Commander, will prepare and implement an installation-wide NAGPRA CA.
- Determines the applicable laws and regulations and the applicable SOP (contained in this ICRMP), other applicable consultation or regulatory requirements, or if the undertaking is considered under the PA developed for NHPA compliance.

- Participates in consultation as provided in the ICRMP or otherwise specified by appropriate laws and regulations, and conducts and reviews appropriate studies, as necessary.
- Serves as the YPG point of contact for Native American consultation, the Council, and e Arizona SHPO.
- Coordinates cultural resources management activities with organizational elements, supported components, and other parties identified by the YPG Garrison Manager.
- Reviews and approves digging permits on the installation using the YPG Intranet.
- Has responsibilities for record keeping and curation by:
  - Developing and maintaining records, reports, and documentation sufficient for consultation and an assessment of cultural resources for their eligibility for inclusion in the National Register (including maps, plans, notes, data forms, records, photographs, memoranda, journal notes, Work Orders (DA Form 4283 or 1391) , and draft and final reports).
  - Providing for curation of any artifacts recovered from YPG, in accordance with 36 CFR Part 79 (“Curation of Federally Owned and Administered Archaeological Collections”). In 2012, YPG has a “no collection” policy in place. Artifacts and other cultural remains are photographed and mapped in place.
- Other administrative responsibilities include:
  - Assisting the Garrison Manager with developing funding priorities for all cultural resources program and compliance activities.
  - Developing budget requirements for compliance with this ICRMP and applicable PAs and/or MOAs, using appropriate government budgeting processes to program these requirements through Army channels.
  - Ensuring that the current ICRMP is operational at all times and that all procedures of the ICRMP and stipulations of applicable PAs and/or MOAs are implemented.

## 5.5 INTERNAL COORDINATION PROCESS

Required coordination and consultations that may impact the missions at YPG must be identified as a priority and addressed early to avoid impacts to readiness. Public Works holds “scheduling meetings” on a weekly basis. The Cultural Resources Manager attends these meetings where any project conducted on the installation is discussed and scheduled. Coordination of these projects involves the Cultural Resources Manager and their “clearance” of the work or the requesting entity is notified of the appropriately scheduled compliance activity required before the project can commence.

Through the weekly scheduling meetings, the Cultural Resources Manager ensures that any activity or undertaking, which may have a component of ground disturbance or building alteration, is coordinated with other installation activities including but not limited to the following entities.

### 5.5.1 Yuma Proving Ground Garrison Manager

Unless exempted by a PA or MOA, all Section 106 actions require consultation and coordination with the Arizona SHPO. Some actions may also require coordination with the IMCOM and HQDA. In preparing PAs and MOAs, the YPG Garrison Manager (and the Cultural Resources Manager) will work cooperatively to address all IMCOM and HQDA comments on draft agreements. Following integration of IMCOM and HQDA comments, the YPG Commander will



sign the agreement, obtain SHPO, IMCOM (as appropriate), and any consulting party signatures, and forward the document to the Council (as appropriate) for signature.

### **5.5.2 Directorate of Public Works/Division of Master Planning and Real Property**

The YPG Master Plan was developed in 1983 and is currently under revision. The Plan indicates that a Cultural Resources Management Plan will be an appendix of that document and will be taken into account during the planning process. Coordination with the Cultural Resources Manager is an important element of YPG planning processes.

### **5.5.3 Environmental Sciences Division**

Coordination and review of projects within this YPG organization is imperative as all aspects of the environment interrelate with the cultural landscape planning approach. An overall conservation planning strategy better integrates the protection of cultural and natural resources with the military mission.

### **5.5.4 Directorate of Plans, Training, Mobilization and Security**

Coordination with this YPG organization (formerly called Security Police) occurs when infractions on YPG are committed. In accordance with AR 200-1, YPG security personnel, YPG legal staff, PAO, recreation management, and other environmental staff are required to be informed about cultural resources laws and their enforcement under ARPA. Any coordination regarding these issues should be routed through the Cultural Resources Manager.

### **5.5.5 Supported Components**

Government supported components at YPG include:

- U.S. Army Health Clinic
- MCAS-Yuma
- U.S. Army Veterinary Clinic
- Defense Commissary Agency
- Yuma Resident Office, USACE, Los Angeles District
- Communications Electronics Command, PM Firefinder
- Army Test Measuring and Diagnostic Equipment Support Operation
- John F. Kennedy Special Warfare Center and School and Military Freefall School
- U.S. Air Force Flight Test Squadron
- U.S. Army Contracting Agency
- Compact Yuma Detachment
- U.S. Air Force Aerostat Site
- Directed Test Mission Activity

The only leased lands at YPG are to utility companies (e.g., cable TV towers; telephone modules, transmitter, and repeater stations). Leased parcels are relatively small and the lessee is responsible for maintaining the land and keeping it free of debris and contamination. If the lessee wants to build new structures or add to existing ones, they must contact YPG, obtain a digging permit, and clear the activity with environmental staff, including the Cultural Resources Manager. Tenants do not formally lease the land they utilize; they have Interservice Support Agreements (ISA) with YPG. Like leased parcels, parcels used or leased by supported

components are managed by YPG, including any environmental issues that may arise. Coordination and “clearance” of an undertaking must be staffed through the Cultural Resources Manager as part of the process.

### **5.5.6 Public Affairs Office**

Yuma Proving Ground has a rich history and extensive archaeological record. To ensure that the military and public are aware of historic preservation issues, the Cultural Resources Manager should continue to periodically participate in, or host, public awareness projects. Typical efforts would include, but not be limited to, Boy Scouts of America Eagle projects, annual participation in Arizona Archaeology Awareness Month, summer youth exchange programs, and tours for affiliated Native American tribes. In addition, the Public Affairs Office (PAO) retains some historical information that should be made available to the public if requested. PAO should also continue to periodically publish historical articles in the YPG newspaper (The Outpost) and to assist the Cultural Resources Manager in developing interpretive programs.

### **5.5.7 Command Judge Advocate**

The coordination of agreement documents (e.g., MOAs, PAs) should be staffed through the YPG Command Judge Advocate (CJA) (e.g., legal) office for review and comment in accordance with the procedures and time frames in AR 200-1. The CJA should comment as to the correctness of the documents as they become legally binding agreements under the law for which the YPG Garrison Manager is responsible. The CJA serves as counsel for YPG in appropriate administrative cases, hearings, and enforcement actions. They may also interpret the various laws and regulations related to cultural resources management.

### **5.5.8 Range Scheduling**

Range Scheduling schedules the use of installation training lands to units for field exercises and/or tests. They should be aware that the Cultural Resources Manager has a current inventory of cultural resources found on the training/testing lands and should be provided information on any training or testing actions in areas that have not been inventoried. If there are ground-disturbing actions, compliance procedures must be followed.

## **5.6 EXTERNAL COORDINATION PROCEDURES**

The key to the successful balance of mission requirements and cultural resources compliance and management responsibilities is early planning and coordination to prevent conflicts between the mission and the resources.

### **5.6.1 Major Command**

All Section 106 actions requiring PAs or MOAs (initial draft form) should be prepared by the Cultural Resources Manager and staffed for review through Installation Management Command (IMCOM), the MACOM, and as appropriate, HQDA Army Environmental Command (AEC). The Cultural Resources Manager shall ensure that the initial draft PA or MOA reflects and embodies the results of the consultation efforts by YPG, the Arizona SHPO, and, as appropriate, the Council. Installation Management Command and AEC will provide a technical and legal review as appropriate.

### **5.6.2 Headquarters Department of the Army**

Headquarters Department of the Army (Army Environmental Command) will provide technical review and will coordinate with TJAG to obtain HQDA legal review. HQDA (AEC) will provide the IMCOM and the YPG Garrison Manager with the HQDA technical and legal reviews. (The Cultural Resources Manager should consult AR 200-1 for guidance for PAs or MOAs.) If the PA or MOA has Army-wide implications, IMCOM or HQDA may elect to be a participant in and an Army signatory to such an agreement. Otherwise, the YPG Garrison Manager has signature authority for NHPA PAs, MOAs pertaining to Army-owned and -controlled federal properties, or actions subject to Army federal approval that fall within the YPG Garrison Manager's area of responsibility.

### **5.6.3 Arizona State Historic Preservation Officer**

The SHPO coordinates state participation in implementation of the NHPA and is a key participant in the Section 106 process. The role of the SHPO is to consult with and assist YPG when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or reduce those effects. The SHPO reflects the interests of Arizona and its citizens in the preservation of their cultural heritage, and helps YPG identify those persons interested in an undertaking and its effects upon historic properties. When the SHPO does not respond within 30 days of receipt of a written request for a review of a finding or determination, YPG may either proceed to the next step in the process based on the finding or determination or consult with the Council, in lieu of the SHPO. All "undertakings" at YPG that fall under Section 106 must be coordinated with the SHPO or have a PA or MOA in place that allows for agreed upon procedures in place of normal Section 106 compliance.

### **5.6.4 Advisory Council on Historic Preservation**

The Council may participate in the Section 106 consultation process, if invited, or if comments are requested from any consulting party. Upon such a request, the Council has 15 days in which to respond as to whether it will participate, and if it does so, it has 45 days to provide comment. Additionally, copies of all agreements are to be provided to the Council.

### **5.6.5 Affected Native American Tribes**

Yuma Proving Ground, the SHPO, and the Council should be sensitive to the special concerns of Native American tribes in historic preservation issues, which often extend beyond Native American lands to other historic properties. When an undertaking will affect traditional or historical territories of Native American tribes, YPG shall invite the governing body of the responsible tribe(s) to be a consulting party and to concur in any agreement. When a Native American tribe has established formal procedures relating to historic preservation, YPG, the SHPO, and Council shall, to the extent feasible, carry out responsibilities under these regulations consistent with such procedures. A Native American tribe may participate in activities under these regulations in lieu of the SHPO with respect to undertakings affecting its lands, provided the Native American tribe so requests, the SHPO concurs, and the Council finds that the Native American tribe's procedures meet the purposes of these regulations. When an undertaking may affect properties of historic value to a non-federally recognized Native American tribe on non-Native American lands, the consulting parties shall afford such tribe the opportunity to participate as interested persons. Traditional cultural leaders and other Native Americans are considered to be interested persons with respect to undertakings that may affect historic

properties of significance to such persons. Chapter 7.0 of this document discusses the Native American consultation processes.

### **5.6.6 Public Involvement**

Yuma Proving Ground should take into account the views of the public on historic preservation questions and encourage maximum public participation in the Section 106 process. Yuma Proving Ground, in the manner described below, and the SHPO should seek and consider the views of the public when taking steps to identify historic properties, evaluate effects, and develop alternatives. Public participation in the Section 106 process may be fully coordinated with, and satisfied by, public participation programs carried out by YPG under the authority of the NEPA and other pertinent statutes. Notice to the public under these statutes should adequately inform the public of preservation issues in order to elicit public views on such issues that can then be considered and resolved, when possible, in decision-making. Members of the public with interests in an undertaking and its effects on historic properties should be given reasonable opportunity to have an active role in the Section 106 process. Chapter 8.0 of this ICRMP offers useful guidance regarding these issues.

## **5.7 GUIDELINES FOR INVENTORIES/EVALUATIONS**

Yuma Proving Ground must make a reasonable and good faith effort to locate and identify all historic properties that might be affected by an undertaking, and it must request the SHPO's views about whether further actions are needed to identify historic properties (36 CFR Part 800.4).

It is economically and logistically impractical to systematically inventory 100% of YPG for cultural resources. However, with the integrity of many unrecorded, National Register-eligible properties potentially being compromised by ongoing missions, it is imperative that YPG continue a program of inventory and evaluation.

A determination of what areas need to be inventoried should be carried out using GIS data layers or consolidated map information from past surveys, evaluations, and testing/training activities. A comprehensive map assigning various degrees of priority to areas of YPG could also be developed. The map should incorporate military use areas, survey exemption areas, and previously inventoried areas. Degrees of prioritization could include:

- **High-Priority Areas.** These areas should reflect high potential for cultural resources that are currently being used for military activities. They need to undergo Class III intensive inventory as soon as possible to ensure compliance with federal preservation laws.
- **Medium-Priority Areas.** These should be areas of medium potential for cultural resources and are: (1) in medium probability areas that are currently being used for military activities; (2) high probability areas adjacent to areas currently being used for military activities; and (3) high probability areas likely to be used in the near future for military activities. These areas should undergo Class III intensive inventory as soon as the high-priority areas have been inventoried.
- **Low-Priority Areas.** These should be areas of low potential for cultural resources and not currently being used for military activities and are also: (1) areas that are not likely to be used for military activities in the near future; (2) should be areas that have previously

undergone a cultural resource inventory and; (3) should be areas that contain hazardous materials or unexploded ordnance.

The evaluation of known sites within the areas of highest priority should be undertaken first if their significance has not been determined and coordinated with the SHPO. Evaluation for National Register eligibility for newly discovered sites should be undertaken as a part of the intensive inventory process as prioritized areas are surveyed. The procedures for inventory and evaluation are noted in the section covering SOPs #4 and #6 (Appendix K).

## **5.8 PRESERVATION/PROTECTION PLAN (INCLUDING SITE NONDISCLOSURE INFORMATION)**

Yuma Proving Ground must protect historic properties using avoidance, physical protection, data recovery, or other mitigation procedures, and regularly review the adequacy of such preservation/protection measures. There are several useful documents that deal with site protection/preservation. Two of those are the Department of the Interior's Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines and Treatment of Archaeological Properties, A Handbook. These basic documents deal with almost every aspect of preservation activities and offer standards and guidelines for each. All archaeological resources must be protected until they are evaluated for National Register eligibility by a professional archaeologist and this evaluation is reviewed by the Arizona SHPO. Also, it should not be forgotten that the SHPO, in the absence of an MOA or PA, should be consulted in the plan chosen for preservation/protection or other site treatment. Four treatment plans for the protection of prehistoric and historic sites are presented below.

### **5.8.1 Prehistoric and Historic Archaeological Sites**

- Avoidance of all areas having significant sites. In the majority of cases, the most efficient and cost-effective way to protect National Register-eligible sites is through avoidance. Coordination of mission activity planning and cultural resource management, particularly in the early stages of planning, can determine if significant sites exist in the APE and, if so, where to move or adjust the APE boundaries so that historic properties are avoided. The Cultural Resources Manager may determine that large blocks of land need to be avoided entirely or if specific, small locations can simply be bypassed.
- Physical protection of individual sites by fencing, berming, or taking protective measures for making them inaccessible. In some cases, it may be necessary to protect the site by placing temporary fencing or berming around site boundaries; marking site boundaries with fluorescent flagging or Seibert stakes (Figure 5-1) often accomplishes the same goal. This procedure, in combination with written, graphic and verbal instructions for site avoidance typically provides adequate physical protection of archaeological sites. Seibert stakes are used in military training areas to mark land areas which are currently "OFF-LIMITS" to training or maneuver activities. Seibert stakes are used to mark areas that need protection because of excess erosion or other physical hazard, areas that are being rehabilitated, agricultural fields, and other environmentally or culturally sensitive areas.
- Monitoring the effectiveness of protection measures. The requirements of an undertaking and the needs for site protection often become relatively complex, and avoidance of historic properties, even with the assistance of physical barriers, is difficult. In-field monitoring of these situations is an effective technique for completing mission objectives

and protecting archaeological sites. Monitoring also includes visiting properties periodically to determine if avoidance, physical barriers, or both are helping to maintain site integrity.

- Protection of a statistically valid sample of the different classes of significant sites. These classes will include sites that show the chronological, functional, and cultural variability in the properties characteristic of the installation and the region. Members of the sample will be located where they can be avoided by installation activities or protected in other ways. The sample will be updated periodically as new data permit. Critical to this treatment is the implementation of a sample survey to define classes of sites within different environmental types and then to determine which ones are significant. Presently, the YPG area has not been adequately sampled with regard to various landscape variables, so it is very unlikely that the recorded sites represent the entire range of variation within the installation.
- Although data recovery projects will be problem-oriented, investigation should also seek to obtain a reasonable amount of information that may be useful for addressing other questions or problems in the future. In sum, data recovery should attempt to recover a wide range of data.
- To adapt to unforeseen problems, discoveries, and opportunities, data recovery projects will be designed with flexibility in mind.



**A. The unbroken horizontal yellow and red bands identify the edge of an off-limits area.**



**B. The vertical white line is placed to face into the off-limits area.**

*Figure 5-1. Seibert Stakes (Source: <http://www.islandnet.com>, accessed 03/10/2011)*

### 5.8.2 Buildings and Structures

Yuma Proving Ground has no historic buildings or structures that currently are considered eligible for the National Register. As recommended in the most recent historic architectural inventory and evaluation (JRP Historical Consulting 2009), additional review and evaluation of potentially eligible buildings and structures should be an ongoing process as the buildings “come of age,” approaching or reaching 45 years old. This time period will give ample opportunity to evaluate the buildings, assess potential effects, and consultation with the Arizona SHPO

regarding appropriate protection or treatment plans. Protection/treatment alternatives for historic buildings and structures typically include maintenance, preservation, rehabilitation, and documentation. SOP #9 (Appendix K) also provides procedures for dealing with historic buildings and structures. The first three definitions, along with the four listed below, are relevant to preservation and protection (see 48 FR 4479-44740).

- **Maintenance:** The act or process of preventing deterioration through regular cleaning, servicing, replacement, of worn or deteriorated materials, and minor repair without altering the building's essential character or form.
- **Mothballing:** The act or process of removing a building from active use and protecting it from deterioration.
- **Preservation:** The act or process of applying measures to sustain the existing form, integrity, and material of a building or structure and its site features. It may include initial stabilization as well as ongoing maintenance of the historic building materials.
- **Rehabilitation:** The act or process of returning a property to a state of utility through repair or alteration which makes possible efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values.
- **Repair:** The act or process of fixing a building element that is broken or deteriorated while retaining the building's essential character and form.
- **Restoration:** The act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular time by means of removal or later work or by replacement of missing earlier work.
- **Stabilization:** The act or process of applying measures to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the present essential form of the building.

### **5.8.3 Properties of Traditional Religious and Cultural Importance (PTRCI) and Traditional Cultural Properties (TCPs)**

There have been several ethnographic studies conducted with consulting Native American tribes for the presence of PTRCIs at YPG, although there have been no systematic surveys for TCPs. During the course of archaeological surveys, the presence/absence of possible TCPs is noted and discussed with the Cultural Resources Manager. Affiliated Native American tribes and tribal representatives have stated the importance of understanding the White Tanks area as a marker of tribal identity and understanding the religious symbolism that accompanies the site, and there may be other significant sites on YPG. Section 7.3 provides more information on PTRCIs and TCPs, as does National Register Bulletin No. 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties. The documentation and protection of PTRCIs and TCPs are conducted in compliance with NHPA, NAGPRA, EO 13007, Indian Sacred Sites, AIRFA, the memoranda concerning the use of eagle feathers for Native American religious purposes, government-to-government relations with Native American tribes, and ARPA.

Determining the likelihood of PTRCIs/TCPs at YPG can be based on background research into the history and ethnography of the area and on consultation with Native American tribes and other traditional groups. Where there is no prior indication of traditional cultural concerns, documentation and consultation are conducted during the regular course of Section 106 public involvement, field inventory, and research. Documentation and consultation for PTRCIs/TCPs

are scaled to the scope of the specific undertaking. Most day-to-day management activities may have little potential for affecting such properties. However, if an undertaking is likely to affect an area or resource of known significance to a traditional group, the potential for properties may be high. If prior evidence suggests this possibility, an ethnographic specialist may be used to assist in the documentation and consultation.

The following measures will be taken for protection or mitigation; however, they should be further refined during consultation with representatives from affiliated groups. The following protection measures should be employed:

- *Avoidance*: Excluding mission activities from within the boundaries of the areas year round will mitigate impacts. Mission activities may also be adjusted if the area is only used on a seasonal basis.
- *Physical Protection*: If verbal, written, or graphic communications are not effective at keeping undertakings from encroaching on traditional cultural properties, then physical barriers will be used to protect the area.

If mission activities cannot avoid properties, then consultation with interested representatives from affiliated groups is required to determine the extent and degree of impact and the appropriate mitigation measures. It should determine what actions qualify as adverse effects, how close to the property that mission activities can be conducted, and any differences between short- and long-term impacts. All parties should be aware of the proposed impacts and alternative mitigation measures.

#### **5.8.4 Other Preservation/Protection Measures**

Protection measures include educating YPG military personnel, civilian employees, and other land users about the legal consequences of intentionally or unintentionally disturbing cultural resources on installation lands. Such disturbance includes the collecting of surface finds of prehistoric and historic artifacts, paleontological objects (petrified wood or other fossils), as well as ground-disturbing collections. Another protection measure is to ensure that location data is not distributed through documents accessible to the public. Nondisclosure of site information is covered under the Freedom of Information Act. Two other statutes and their implementing regulations (i.e., ARPA, Section 9A [32 CFR Part 229.18] and Section 304[a] of the NHPA) also restrict the release of archaeological information. Exemption of this information is acceptable and preferred.

#### **5.8.5 Research Questions**

Below are listed research questions that are generally important to the Sonoran Desert, the Southwest in general, or YPG in particular.

##### ***SITE INTEGRITY AND STRATIGRAPHY***

- Are the sites intact and do they possess relative stratigraphy and subsurface features?
- Do temporal and spatial patterns of distribution of material reflect cultural preferences of the availability of different raw materials?
- What is the pattern and significance of the various lithic raw material distributions observed at each site in comparison to patterns observed elsewhere in the Sonoran Desert



and/or surrounding area? What raw materials were available within the YPG boundaries during the past?

- What activities are taking place at each site, and how do they compare to those seen at other sites in the region?
- Do occupations at individual sites represent or reflect warm season or cold season occupations?
- At many prehistoric sites numerous discrete concentrations of lithic materials are distributed throughout the site area. Are each of these concentrations different individual occupations? How do they relate to one another? Are there specific activity areas that can be documented? What kinds of activities are taking place at different parts of the site?

#### *SETTLEMENT PATTERNS*

- How do sites on YPG articulate into the regional settlement patterns, and in particular, how do the major trail systems such as the Colorado-Gila trail on YPG fit into the context of travel and trade in the region?
- How do the diagnostic artifacts fit within this regional pattern? Do these patterns reflect social or economic territories?
- How do settlement patterns observed on YPG change through time?
- Site investigation may yield exotic artifacts or raw materials that would provide further evidence of inter-regional trade, complementing existing information. How does this pattern change through time?

#### *CHRONOLOGY*

- Can the assemblage of artifacts at a site enhance our understanding of chronology in the region?
- Can dating of assemblages, samples and/or artifacts be done, and if so what is the age or ages?

#### *SUBSISTENCE*

- Can direct information on subsistence activities be ascertained at a site or grouping of sites?
- Can the analysis of artifacts address questions of food acquisition, processing and storage, and how these all fit within the seasonal round of population movement?

#### *PALEOENVIRONMENTAL STUDIES*

- Can the examination of ecofacts such as gastropods or floral remains at a site provide indications about past environmental conditions, and how these conditions may have changed through time?
- Can climatic interpretations at a site be integrated with sediment and geomorphological analysis to provide a more precise picture of past conditions?

#### *HISTORIC MINING STUDIES*

No detailed studies have been undertaken on YPG regarding historic mining locations. Although some mining locations are known (Hoffman 1984; Figure 3-1) there has been no concerted effort to study this class of cultural resource. Fundamental archival research on the YPG area

concerning mining would be essential. Compilation of mining resource data will help begin the process of formulating research questions which will lead to an understanding and efficient management of the resource on YPG.

Each mining site will require testing using field strategies to gain highly comparable sets of data in order to compare and contrast each mining site and what they hold. These data will also add to the regional database and understanding of the aspects and dynamics of early mining in the region and state. Within a general research focus there are several problem domains that can be identified:

- Site and feature functions
- Construction methods
- Settlement patterns
- Subsistence
- Ethnicity
- Social interaction

Relevant research questions may include the following:

- What was the composition of the site's residents (e.g., families, ethnicity)?
- What types of foods were consumed by the site's residents and do they differ between residences and/or sites?
- Do artifacts (and buildings if extant) reflect change in use through time?
- What were the sources of food products for the sites; were they local or regional?
- What construction methods are evident in building remains (if there are any) and can they be associated with function?
- Is there spatial and temporal patterning of the artifacts?

#### *WORLD WAR II MILITARY TRAINING ACTIVITIES*

As described in Chapter 3, the YPG region was an important component of the Desert Training Center/California-Arizona Maneuver Area (DTC-CAMA), established in 1942 by General George S. Patton (Bischoff 2008). Camp Laguna in particular was a southern headquarters for this center of desert warfare training. Bischoff (2008:58; Bischoff et al. 2010) highlights several major historic themes applicable to properties of the DTC-CAMA: (1) the vast preparations that the United States undertook to carry out World War II; (2) the unprecedented scale of U.S. desert warfare training efforts; (3) the importance of several persons directly connected with the success of the DTC-CAMA, including Patton, his successor General Walton Walker, and General Terry Allen; (4) the training experience of the American soldier, including the effects of the desert environment on training activities; and (5) long-term consequences of training activities on the desert environment (e.g., Prose and Wilshire 2000). A large number of research questions stem from these major themes (Bischoff et al. 2010), including (1) the functions of specific sites, facilities, and training areas; (2) how those sites, facilities and training areas fit into the development of a World War II-specific combat doctrine; (3) the coordination of personnel and units, experience of the individual soldier, and interactions of personnel with local civilians; (5) association with famous persons; (6) the consequences of training on the landscape environment, including the effects of clean-up protocols on sites, facilities, and training areas.

Bischoff identified numerous historic site types expected in the YPG area: divisional camps (including Camp Laguna), training sites, air facilities, maneuver areas, bivouacs and other campsites, ranges of various sorts, railroad sidings and depots, and hospitals. These properties, provided they still hold sufficient historic integrity, may be eligible for the National Register under several criteria. Relevant research questions that may be considered at specific properties may include the following:

- How did the property function within the overall training mission?
- Was the specific property unique in some way, or does it rather represent a common property type?
- Does the property have a strong connection to an important event, personage, or group, or does it strongly exemplify an important architectural style?
- How does the property fit into the historic themes exemplified by the Desert Training Center?

## **5.9 STANDARD OPERATING PROCEDURES**

The integration of cultural resources management objectives into the Army missions at YPG is a central tenet of this ICRMP. Coordination procedures between natural resources management, ITAM (Integrated Training Area Management), master planning, and mission-related test and training activities are addressed in SOPs #1 through 9.

During the course of implementation of those cultural resource practices such as Section 106 of the NHPA that require specific public involvement, the public dissemination of information and the opportunity for public comment should be scheduled within the framework of existing public information meetings or events, either as part of the NEPA process or in cooperation with the YPG PAO.

Note: NHPA guidance provided in the following SOPs is based on the most current revision of 36 CFR 800 (August 5, 2004).

Standard Operating Procedures governing cultural resources management activities at YPG are presented in Appendix K.

## **5.10 ACTIONS NOT REQUIRING STATE HISTORIC PRESERVATION OFFICER CONSULTATION**

Certain YPG activities do not require consultation with the SHPO. These include:

- World War II Building Demolition. The demolition of World War II temporary buildings as exempted by a 1989 nationwide PA.
- Historic buildings and structures treated under Program Comments. These include Capehart-Wherry Era Housing, Unaccompanied Personnel Housing, and Ammunition Storage facilities.
- Archaeological Survey Stipulations:
  - BRAC MOA Stipulations. The MOA signed by YPG, the SHPO, and the Council stipulates that there are certain areas of the installation that the agencies agree are either disturbed to such a degree that there is little potential to affect historic properties and they require no review by the SHPO or Council, or there are areas

that have the potential to endanger the lives or health of survey personnel. These areas, shown in Figure 2-1 and on maps attached to the MOA, include the housing areas on YPG and areas where a variety of ordnance and other mission-related contaminants are known to be present.

- Previously disturbed areas - main post housing area – Signatories to the MOA agreed that this area has been completely disturbed by prior construction and land use activities.
- Dangerous areas - large tracts of the ranges – These areas are located within the impact areas on several different ranges. It has been agreed that these areas may be surveyed at a lower level of intensity than would otherwise be appropriate, or may not be surveyed at all due to the danger of injury to personnel due to contact with unexploded ordnance or toxic substances.

### **5.11 CURATION**

All cultural materials that have been collected during archaeological inventory on YPG will be stored in compliance with 36 CFR Part 79 (Curation of Federally Owned and Administered Archaeological Collections). A curation agreement with the Cocopah Museum Curation Facility was signed on October 24, 2005 and is renewed every three years.

### **5.12 ICRMP REVIEW**

ICRMPs have been developed to cover a 5-year period. The ICRMP should be reviewed annually to determine if it still meets mission and environmental requirements. Some events that may trigger a re-evaluation of the ICRMP include:

- Significant federal actions (e.g., change in mission, BRAC actions)
- Deficiencies resulting from an environmental audit (in accordance with AR 200-1)
- A significant increase in the number or percentage of completed surveys
- Change in, or exception to, HQDA policy
- New or revised federal statute, regulation, EO, or Presidential Memoranda
- Addition of new resource types or categories (e.g., important Cold War resources are identified).

Coordination and review of the ICRMP should go through the appropriate chain of command with the review of the ICRMP occurring at HQDA (AEC).

### **5.13 CULTURAL RESOURCES PROGRAM STAFFING AND TRAINING NEEDS**

There are funded Cultural Resources Manager and two Archaeologist staff positions at YPG; all positions are filled by personnel who meet Secretary of the Interior's Standards and Guidelines (36 CFR 61) Professional Qualifications Standards in Archaeology. Yuma Proving Ground has approximately 1,300 square miles of land that requires full-time attention to cultural resources compliance. The Cultural Resources Manager and Archaeologists conduct archaeological and historical investigations in-house and by contracting services with qualified professional archaeologists and architectural historians.

Yuma Proving Ground Cultural Resources personnel should receive periodic, ongoing training in cultural resources management. Useful courses are available through the Council and should be reinforced by attending a wide range of meetings among cultural resource personnel within DOD.

## **5.14 YUMA PROVING GROUND KEY OBJECTIVES AND CULTURAL RESOURCES PROGRAM GOALS**

Based on the cultural resources status of YPG, the following general and specific goals are planned.

### **5.14.1 General Goals**

- Ensure compliance with federal preservation laws.
- Locate, evaluate, and manage archaeological, historical, and sacred sites.
- Contribute to the regional archaeological and historical body of knowledge through professional contributions and by providing educational opportunities for the public, such as sponsoring events during Arizona Archaeology and Heritage Awareness Month.
- Employ efficient techniques for the management of cultural resources.

### **5.14.2 Specific Goals**

#### *SECTION 106 GOALS*

##### FY12 and ongoing

- Continue large-scale inventory of approximately 12,000-15,000 acres per year that have been identified for mission-related activities that have never been inventoried or have not been inventoried to current standards. Areas to be inventoried include parcels that are currently heavily used areas and areas that have been identified in support of future plans for training, aviation, air delivery, and other training and testing programs.
- Re-inventory and evaluate cultural resources in the Combat Systems Maneuver Area, Target Recognition Range, and the Material Test Area survey area, as funding permits and mission requires.
- Inventory construction and other project areas associated with the U.S. Army Garrison Yuma master plan.

##### FY12-13

- Develop an archaeological and historic context, management plan, and programmatic agreement to guide future development and undertakings in and around Camp Laguna, so that a portion of the remaining intact historic features and artifacts can be protected and preserved in place. In 2011, the 1,850-acre Camp Laguna site was re-surveyed and archival research was conducted to develop the archaeological and historic context (Gibbs et al. 2012); continuing efforts are to develop the management plan and PA.

##### FY12-13

- Conduct inventory and National Register of Historic Places evaluation of selected mining features.

FY13

- Conduct inventory and National Register of Historic Places evaluation of selected wildlife watering tank locations.

FY13-18

- Develop a Programmatic Agreement to manage cultural resources in the Red Bluff Combat Systems Maneuver Area, the Mohave Wash/Mojave Drop Zone, and the Sense and Destroy Armor (SADARM) project area, as funding permits and mission requires.
- Develop criteria for evaluation of World War II historic site types expected in the YPG area.

**SECTION 110 GOALS**FY11-12

- Develop field criteria for the discernment of cleared circles as human-made vs. naturally-occurring (Eric V. McDonald, work in progress).

FY11 and ongoing

- Continue development of archaeological predictive modeling efforts to improve understanding of the relationship between environmental variables and archaeological site distribution, and to allow prediction of probable site density and content based on relevant environmental variables. An initial model was funded (Bullard et al. 2011) and is described in Chapter 3 of this ICRMP.

FY12-13

- Develop a historic context for trails and trail systems, including criteria for eligibility based on associations and procedures for recording, beginning with the Colorado-Gila Trail. The northwestern portion of the Colorado-Gila Trail was recorded in FY11 and FY12 (Zia Engineering and Environmental Consultants, LLC 2012).

FY13

- Update and implement the management plan for the White Tanks Management Area.

FY13-14

- Develop and implement a management plan for the Mohave Tanks area.

Ongoing

- Continue reconciliation of the existing archaeological database with the site records to delete redundancies and verify the accuracy of existing information. This is an essential task for further improvement or development of any GIS-based predictive model.
- Continue to update and integrate the databases of archaeological sites and survey reports into a comprehensive linked GIS database for better management of resources. Prepare databases for inclusion in Army-wide GIS databases such as ArmyMapper. Cultural Resources GIS data were converted to a Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) compliant GIS database format in FY12.

- Develop reliable chronological placement of prehistoric archaeological sites, to better understand long-term patterns of human occupation of different environments at YPG and to better evaluate specific archaeological sites with respect to their information potential necessary for inclusion in the National Register.
- Conduct detailed functional, stylistic, chronological and technological analyses of specific artifact classes (projectile points, ceramics, ornaments) or archaeological constructions (rock rings, cairns, trails, alignments) to better allow inferences regarding site function, chronology, and settlement organization during inventory surveys. One such analytic study of a YPG museum ceramics collection was conducted for a recent Master's thesis (McCormick 2010).

## 6. ECONOMIC ANALYSIS REQUIREMENT FOR THE DEMOLITION OF HISTORIC BUILDINGS

No historic buildings are presently identified at YPG that are listed on or eligible for the National Register of Historic Places (JRP Historical Consulting 2009). If historic buildings are identified at YPG, the economic analysis information provided in Hunter et al. (1999) will give useful guidance to the Cultural Resources Manager regarding layaway procedures for U.S. Army facilities. The NHPA requires that historic buildings be considered for re-use before their disposal is considered. Demolition of a historic building should remain a last option only after all other options, including mothballing, have been considered and proven infeasible. Layaway, demolition or disposal actions would involve the Public Works, Master Planning, and Real Estate staff and would require notifying the Cultural Resources Manager. Demolition of a historic property is considered an adverse effect under the NHPA and consultation with the Arizona SHPO would be required, unless it is already addressed through an appropriate MOA, PA, Program Comment or other agreement.

The decision to re-use, replace, or demolish a facility needs to be justified with a least cost, life-cycle economic analysis, and a number of computer software programs are available for this purpose. The AEC and the Construction Engineering Research Laboratory (CERL) have developed a computer-based analysis, Layaway Economic Analysis (LEA), that allows the input and manipulation of costs associated with repairs, maintenance, demolition, and replacement of buildings (CERL 1996). The LEA tool also has components that allow for adjustments for National Register-eligible or -listed properties.

The assessment of new construction must evaluate life-cycle maintenance cost, utility costs, replacement costs, and other pertinent factors. Replacement costs should not be based on replacement in kind, but should be based on a design that is architecturally compatible with the historic property. If the building to be disposed is a historic property, potential reuses of the building must be analyzed prior to making the final decision to dispose of the property.

Life cycle cost (LCC) analysis allows for the comparison of costs of projects at different times. There are two approaches commonly used for this purpose: the present worth approach and the equivalent uniform annual cost. The former is the sum of all initial and future costs of a project individually converted into their present value equivalents. The latter is the annual total of individual costs converted into their uniform annual costs over the life of the building.

Additionally, in comparing investment alternatives (e.g., determining whether or not to pay more initially for a product with a longer life), a savings-investment ratio (SIR) may be used. The SIR formula would be the difference of the LCC of the alternatives over the difference in their initial costs (ICST): The formula for this calculation is:

$$\text{SIR} = (\text{LCC A} - \text{LCC B}) / (\text{ICST A} - \text{ICST B}).$$

As a general rule, when the economic analysis demonstrates that rehabilitation costs exceed 70 percent of the building's replacement cost, replacement construction may be used. However, the 70 percent value may be exceeded where the significance of a particular historic structure warrants special attention, or if warranted by the life-cycle cost comparisons.

The inherent value of existing building elements (foundations, footings, exterior walls, floor structure, stairs, and elevator shafts) that can add considerable cost to a new structure are often



overlooked when considering the cost of new construction. An additional consideration is time. Rehabilitation often results in considerable savings in construction time and can be completed in less time than construction of a new facility of comparable size and complexity.

## **7. NATIVE AMERICAN CONSULTATION PLAN**

Legal mandates pertaining to Native American cultural resources and religious freedom include the NHPA, NAGPRA, NEPA, ARPA, AIRFA, and EOs 13007 and 13175. Yuma Proving Ground has undertaken consultation with regional Native American tribes in the past and continues to meet with representatives periodically.

Army Regulation 200-1 calls for the development of a plan to involve Native American tribes in the compliance process. A comprehensive Native American Consultation Plan was completed for YPG in 2001. The text within this section of the ICRMP supplements that Plan and provides a brief description of each affiliated tribe.

### **7.1 NATIVE AMERICAN TRIBES WITH AN INTEREST IN YPG ACTIVITIES**

Several Native American tribal groups with an interest in YPG have been identified in western Arizona and adjacent regions (see Appendix G). All of the tribes occupied Arizona or adjacent southeastern California at the time of European contact. A brief ethnographic sketch of each, identifying the language, traditional territory, traditional economy, and present-day tribal organizations is provided in the following sections. Additional detail about the tribal groups is found in the Native American Consultation Plan (Tierra Environmental Services 2001).

#### **7.1.1 Ak-Chin Indian Community**

The Ak-Chin Indian Community includes both Akimel O’odham (Pima) and Tohono O’odham (Papago). Both are Piman-speaking tribes who occupied much of southwestern Arizona during precontact times. The Akimel O’odham (“river people”) farmed the areas adjacent to the Gila, Salt, and Santa Cruz rivers, collected wild plants, and hunted bighorn sheep and other game (Bahr 1983). The Akimel O’odham traded agricultural products to the Tohono O’odham for products such as hides, mescal, and peppers (Rea 1997). The Akimel O’odham were organized into local groups with a head man and a shaman (Bahr 1983).

The Ak-Chin Indian Reservation was created by the U.S. Government in 1912. It is currently governed by the Ak-Chin Indian Community Council, formed in 1961. In 1962, the Ak-Chin Community established Ak-Chin Farms, a community owned farming enterprise. The tribe entered into the gaming industry in 1994 (<http://www.ak-chin.nsn.us/about.html>), accessed September 21, 2010).

#### **7.1.2 Chemehuevi**

The Chemehuevi are a Numic-speaking branch of the Southern Paiute, who historically occupied a portion of southeastern California in the eastern Mojave Desert and along the right bank of the Colorado River. They had wide-ranging contacts with numerous tribal groups, particularly the Mojave and other Yuman-speaking groups in the Yuma region (Kelly and Fowler 1986). The Chemehuevi were primarily desert-dwelling hunting and gathering societies, but by historic times the Chemehuevi occupying the Colorado River floodplain had adopted much of the culture of the Mojave peoples, who also lived along the Colorado River. These culture borrowings include floodwater farming and crops, earth-covered houses, warfare behaviors, song cycles, vocabulary, and various technological innovations. They also had occasional hostile relationships with the Mojave. There was little central political authority among Chemehuevi families, though a headman held an advisory leadership role.

Today, the Chemehuevi live primarily on the Chemehuevi Reservation near Lake Havasu City, with tribal members also living on the Colorado River Indian Tribes Reservation near Blythe, and at Agua Caliente, Cabazon, Twentynine Palms, and Morongo reservations in California.

### **7.1.3 Cocopah**

The Cocopah are a Yuman-speaking tribe who traditionally occupied the lower Colorado River and its delta in southwestern Arizona and northwestern Mexico, but maintained far-ranging contacts with other tribes in Arizona, California, and Mexico. Eighteenth-century historic sources indicate that the Cocopah participated in an alliance system that included the Maricopa, some Pima and Papago, and other non-Yuman groups (Alvarez de Williams 1983). During pre-contact times, the Cocopah economy was based on a combination of farming, collecting wild plants, fishing, and hunting. During the early twentieth century, portions of several Cocopah bands began to settle in the vicinity of Somerton, Arizona, where the tribal headquarters of the Cocopah Tribe of Arizona is currently located (Russell et al. 1997).

### **7.1.4 Hopi**

The Hopi, who speak a Uto-Aztecan language, are the westernmost of the Pueblo peoples. The prehistoric foundation of the Hopi economy was agriculture based on corn, beans, squash, gourds, and cotton. During the sixteenth and seventeenth centuries, they acquired domesticated animals and other food crops. Although the basic economic unit is the household, Hopi social organization is complex, consisting of interlocking social groupings, including villages, clans, societies, households, lineages, and phratries (Connelly 1979). Hopi ceremonialism is also complex and not conducive to a brief summary.

The Hopi Reservation, located in northeastern Arizona, was established in 1890. In 1947, in response to pressure on the Hopi Reservation from expansion of the Navajo Reservation, the U.S. Government offered the Hopi tracts of land on the Colorado River Reservation. Today, the Hopi people are represented by the Hopi Tribe of Arizona and the Colorado River Indian Tribes of the Colorado River Indian Reservation.

### **7.1.5 Maricopa**

The Maricopa (Piipaash) are a Yuman-speaking people who originally occupied the lower Colorado River. Subsequently, they migrated to the Gila River area requiring adaptation to a different environment. This resulted in an ethnographic culture that shared characteristics with both the other Yuman peoples of the Colorado and with the Pima of the Gila River region, with whom they became allied. The Maricopa practiced floodwater farming and later adopted canal agriculture. They also gathered wild plants, including the fruit of the saguaro, which was available in the Gila River region. Traditionally, they occupied rancheria villages along the rivers (McGuire 1982).

The U.S. Government established the Gila River Indian Reservation in 1859 and the Salt River Reservation in 1879. The Maricopa are organized into the Gila River Pima-Maricopa Indian Community of the Gila River Indian Reservation and the Salt River Pima-Maricopa Indian Community of the Salt River Reservation.

### 7.1.6 Mojave

The Mojave are the northernmost of the Yuman-speaking groups of the lower Colorado River. The core of traditional Mojave territory was the Mohave Valley. Their settlements extended from 15 miles north of the present location of Davis Dam to Needles. They also claimed the area along the Colorado River south to the Bill Williams River before the Chemehuevi moved into this area in the nineteenth century (Stewart 1983b:55). Traditional Mojave economy was based on farming the bottomlands of the river, where they grew maize, tepary beans, pumpkins and melons. Agriculture was supplemented by gathering wild plants, fishing, and some hunting (Stewart 1983b:57). During precontact times, they were organized into a single tribe with a chief, although the tribe was subdivided into bands and local groups (Stewart 1983b:63).

Today, the Mojave comprise two divisions, the Fort Mojave Indian Tribe of Arizona, which is presently in the Needles area of California, and the Mojave of the Colorado River Indian Tribes of the Colorado River Indian Reservation.

### 7.1.7 Quechan

The Quechan Tribe is a Yuman-speaking tribe that historically farmed the floodplains of the Colorado and Gila rivers, growing pumpkins, beans, melons, and maize. Living in small family groups, they also hunted and gathered wild plants in the surrounding area (Casterter and Bell 1951). Although Quechan people lived in scattered settlements, each with a headman, the Quechan was a single tribal entity, who joined together for the annual harvest festival, mourning ceremonies, and warfare (Bee 1983). In 1883, the U.S. Government established a reservation for the Quechan near Yuma on the east side of the Colorado; in 1884, it was shifted to the west side. Today, the Fort Yuma Indian Reservation is located on both sides of the river. The Quechan is organized as the Quechan Tribe of the Fort Yuma Indian Reservation.

### 7.1.8 Tohono O'odham

The Tohono O'odham ("desert people") or Papago are a Pima-speaking tribe, who, along with other upper Piman groups historically occupied the Papageria of Arizona as well as northern Sonora, Mexico. Their traditional economy was based on a mixture of agriculture, hunting and gathering. Agricultural crops included maize, beans, squash, and cotton, but the collection of wild plants was a major contribution to their subsistence (Fontana 1983a). The Tohono O'odham were organized into local groups and regional bands—public offices included a headman and a shaman (Bahr 1983).

The U.S. Government established the Papago Indian Reservation in 1874 and added additional lands at Gila Bend in 1882 and at San Xavier in 1874 (Fontana 1983a, 1983b). The present-day Tohono O'odham Reservation, with the headquarters of the Tohono O'odham Nation located at Sells, Arizona, was established in 1916-1917.

### 7.1.9 Yavapai

The Yavapai speak an upland Yuman language. Their traditional territory extended on the north from the San Francisco Peaks to the Williams/Ash Fork area and north of the Bill Williams and Santa Maria rivers. To the west, their territory included the mountains and, sometimes, the lowlands along the Colorado River as far south as Yuma. On the east, they occupied the lower Verde Valley, Superstition and Pinal mountains to the Mogollon Rim (Khera and Mariella 1983:38). Prior to European contact, they lived in small family groups that gathered wild foods

and hunted throughout much of the year, but camped together with others seasonally when local resources could be exploited by a larger group. Local groups also joined together for war expeditions. Although the Yavapai primarily relied on collecting plant foods and hunting game, they also practiced agriculture, planting maize, beans, and squash, as well as tobacco (Khera and Mariella 1983).

In 1871, the U.S. Government established the Camp Verde Reservation for the Yavapai, and in 1875, it forcibly relocated them to the Apache Reservation at San Carlos (Khera and Mariella 1983). Today, the Yavapai are organized into four federally recognized tribes: the Yavapai-Apache Nation of the Camp Verde Reservation, the Yavapai-Prescott Tribe of the Yavapai Reservation, the San Carlos Apache Tribe of the San Carlos Reservation, and the Fort McDowell Mojave-Apache Indian Community of the Fort McDowell Indian Reservation.

## 7.2 YUMA PROVING GROUND CONSULTATION EFFORTS

Over the past two decades, YPG has undertaken substantial consultation with regional Native American tribes, including consultation with federally recognized tribes in compliance with NAGPRA beginning in 1996. Letters were sent to tribes on the NAGPRA contact list advising them of the locations and status of archaeological collections from YPG. Two Yavapai groups replied, the Yavapai-Prescott Indian Tribe and the Yavapai-Apache Nation of the Camp Verde Reservation. No other responses were received.

Native American tribes were also asked to comment on the Native American Consultation Plan (Tierra Environmental Services 2001) and were provided with copies of the final Plan. Tribes were also asked to review and comment on the draft Site Management Plan for the White Tanks Conservation Area (Earth Tech, Inc. and Affinis 1997). Tribes were invited to participate in meetings to discuss the White Tanks Conservation plan, as well as take a helicopter tour of the site. Between 1996 and 1998, meetings were held every six weeks regarding management of the White Tanks site and other issues.

Currently YPG consults regularly with Tribes on matters related to Section 106 of the National Historic Preservation Act. Consultation is conducted primarily via mail notification of tribal representatives regarding projects and survey reports with follow-up phone calls and emails as needed. Project and survey reports are sent with as much advance notice as possible with the understanding that many tribes have few cultural staff members and often many projects to review. In addition, consultation is conducted by regular meetings with historic preservation specialists at the Quechan and Cocopah tribes, and occasional meetings as needed with other tribal representatives. A tribal meeting was held on June 8, 2011, and others are planned in 2012.

In addition to formal consultation, YPG has periodically hosted the following types of Native American interaction projects for the purpose of improving the relationship between YPG and the tribes and to help acquaint them with the resources on the installation:

- Elders' tours
- Summer youth exchange programs with neighboring tribes
- ARPA training provided by the BIA
- Curation and management collections training.

YPG has also hosted special projects such as a “Gathering” of lower Colorado River basin cultural resources managers and tribes, a five Tribe joint project to develop a cultural display, and a two-day Native American Consultation Conference (see additional information in Section 8.0 of this ICRMP – Public Involvement).

### 7.3 PROPERTIES OF TRADITIONAL RELIGIOUS AND CULTURAL IMPORTANCE

Section 101(d)(6) of the NHPA discusses properties of traditional religious and cultural importance (PTRCIs) to a Native American tribe or Native Hawaiian organization. These properties are eligible for listing in the National Register under Criterion A, association with significant historical events, or Criterion B, association with the lives of significant persons. An archaeological site subject to evaluation under Criterion D may also be identified as eligible under Criterion A or B. Evaluation of eligibility under Criterion C for PTRCIs containing rock art or uniquely designed structures are also considered. There are some types of properties, however, that are not represented by archaeological sites, and if a PTRCI is a natural feature of the landscape that has not been subject to cultural modification it is, therefore, not necessarily identified by archaeological surveys. Consultation with the appropriate Native American tribe is necessary to identify PTRCIs and to evaluate them under Sections 106 and 110 of the NHPA. Section 110(a)(2)(B) of the Act requires a federal agency to ensure that “properties under the jurisdiction or control of the agency that are listed in, or may be eligible for, the National Register are managed and maintained in a way that considers the preservation of their historic, architectural, archaeological, and cultural values in compliance with Section 106.”

Properties of traditional religious and cultural importance are sometimes considered traditional cultural properties (TCPs); National Register Bulletin 38 outlines the steps for consultation on TCPs. These steps are listed below and then discussed in further detail:

- Identify cultural affiliation
- Initiate consultation
- Provide notification/schedule/response
- Identify TCPs
- Document TCPs
- Conduct site visits

The first step is to identify the appropriate tribes, including both federally recognized tribes and other groups that may have a cultural affiliation with the lands under YPG control. This includes tribes owning lands adjacent to YPG, tribes who occupied the region in aboriginal times, and tribes with which YPG has had previous relationships. Ethnohistoric research is usually conducted to identify tribes and potential types of resources (Parker and King 1998). The contact information for YPG-affiliated tribes is provided in Appendix G.

Consultation must be initiated with the tribal government on a government-to-government basis (see AR 200-1) although other tribal members may eventually be consulted. Written notification consists of a letter requesting information from each group. Adequate time, generally 60 to 90 days, should be allowed for a response and follow-up with tribes should include telephone calls, emails, and visits to tribal offices, as needed, if no responses are received, to ensure a good faith effort in soliciting tribal input. A tribal response may consist of a letter or a request for a meeting and further consultation.

If TCPs are reported to exist, the next step is to identify the locations and document their significance. National Register Bulletin 38 (Parker and King 1998) provides guidelines for the identification and evaluation of TCPs. An ethnographer familiar with the tribes may be retained to assist in eliciting information to identify TCPs and may interview knowledgeable representatives of each group offering information. Because of the sensitive nature of information pertaining to TCPs, when more than one tribe is involved, each is usually consulted separately and confidentiality of data is maintained. If an ethnographer assists, initial interviews may take place at the individual tribal offices. Some tribal governments in Arizona prefer to conduct their own interviews with knowledgeable members and provide the information to the agency (e.g., Torres and Manygoats 1992).

Following the identification and documentation of TCPs through letters, interviews and/or meetings, site visits are necessary to further document their locations, significance and physical integrity, and to develop appropriate protective measures. If a property is designated a TCP, documentation must support a determination of eligibility for inclusion in the National Register. Two National Register documentation requirements that are sometimes problematic for TCPs include the establishment of property boundaries, which may include unmodified elements of the landscape, and establishing chronology. To adequately document the latter, determining both the period of significance and the period of traditional use is necessary (Parker and King 1998:20).

Prior to implementing any protective measures for identified TCPs (e.g., access restrictions, fences, signs, patrols), YPG should request comments from the tribes who identify the TCPs, as was done with the Site Management Plan for White Tanks. The tribes may have requests such as active participation in monitoring site conditions. They may also suggest restrictions on the use of signs or fences to protect sites if the tribe perceives this as an undesirable visual impact. The SHPO/THPO must be consulted under Section 106 of the NHPA regarding any mitigation measures if a TCP is also an archaeological site or a PTRCI.

#### **7.4 SACRED/CEREMONIAL SITES**

The AIRFA guarantees Native American traditional religious practitioners access to sacred sites. Executive Order 13007 directs federal agencies to accommodate access to sacred sites and ceremonial use of them by Indian religious practitioners. It also directs the agencies to avoid adversely affecting the physical integrity of sacred sites.

Until access is requested or a site is threatened by an undertaking, a federal agency may be unaware of the existence of sacred sites within its jurisdiction. Information regarding sacred sites may be more difficult to obtain than information regarding TCPs. The information is even more sensitive and religious practitioners may even keep such information from other tribal members. The definition of sacred sites in EO 13007, however, requires the tribe or religious representative to inform the agency of the existence of the sacred site. Advance knowledge of the existence and location of sacred sites facilitates arrangements for access when access is requested. It is also advisable for YPG to know the general locations of all sacred sites in order to provide adequate protection from inadvertent impacts.

The consultation process for sacred sites is similar to that for TCPs, but it results in an agreement for access.

- Identify cultural affiliation
- Initiate consultation
- Provide notification/schedule/response
- Identify sacred sites
- Document sacred sites
- Conduct site visits

The identification process for sacred sites differs from that for TCPs; therefore, the point of contact list in Appendix G may not be adequate for obtaining information about sacred sites. Religious leaders within the tribes may need to provide this information. As in the recommended procedures for TCPs, tribal representatives and religious leaders are not expected to provide this sensitive information at a meeting where other groups are present. An ethnographer who is known to the tribe may be effective in eliciting this type of information, or the tribal government may prefer to obtain the information from members of the group. The YPG representative should then visit the area of the sacred site with the Native American leader to confirm the location, assess the condition, and discuss requested access and ceremonial use.

Sacred sites do not require the same type of documentation as TCPs if the sacred site issue concerns tribal access only; if however, the sacred site is threatened by a proposed undertaking, the site must be considered in the Section 106 process, and it requires thorough documentation so that its eligibility is evaluated in consultation with the tribes and the SHPO/THPO. Army personnel should not question a traditional religious leader's determination that a site is "sacred."

## **7.5 RECOMMENDATIONS FOR COORDINATED SECTION 106/SACRED SITE CONSULTATION APPROACH**

Section 106 of the National Historic Preservation Act requires that Federal agencies take into account the effects of an undertaking on historic properties and afford the Advisory Council on Historic Preservation (ACHP) the opportunity to comment. The ACHP's regulations on the Section 106 process also require that the Federal agency must consult with other parties, and where historic properties are held by Indian tribes to be of religious and cultural significance then agency must consult with those tribes. Executive Order 13007 holds that Federal agencies must accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and must avoid affecting the physical integrity of those sacred sites. The ACHP recommends that the requirements of Section 106 and Executive Order 13007 should be integrated in the Section 106 review process to ensure that the requirements of both are fulfilled in an efficient manner. As the ACHP notes, "consultation regarding the identification and evaluation of historic properties of religious and cultural significance to an Indian tribe could include identification of those properties that are also sacred sites. Similarly, consultation to address adverse effects to such historic properties/sacred sites could include discussions regarding access and ceremonial use" (<http://www.achp.gov/eo13007-106.html>, updated August 22, 2005). In addition to promoting efficiency, this approach has considerable benefit for both parties as it might ensure more timely and appropriate consideration of all relevant issues and values.



The Cultural Resources Manager has an established consultation relationship with affiliated Native American tribes. In addition to formal compliance, the Cultural Resources Manager has improved relationships with several of the groups through site tours and other special projects. In the interest of maintaining a consistent approach to Native American issues, maintaining a continuous relationship with the identified groups, and facilitating the identification of PTCRI, TCPs and sacred sites, consultation efforts should continue in the same manner. Consultation and agreement documents must, however, be signed by the Garrison Manager.

## **7.6 ACCESS TO SACRED/CEREMONIAL SITES**

To comply with legislative requirements to provide access to sacred and ceremonial sites by Native American tribes, consultation should address the expected frequency and regularity of access requests; size of the group that will need access; lead time for YPG to process access requests; and any special conditions required by YPG with respect to security or safety during site visits. A sample copy of YPG access procedures is provided in Appendix F.

## **8. PUBLIC INVOLVEMENT PLAN**

### **8.1 PURPOSE OF THE PLAN**

The purpose of the Public Involvement Plan section of the ICRMP is to provide an organized, comprehensive approach for incorporating public participation into the cultural resources compliance process at YPG. The Plan addresses public information needs directly required by, or related to, several cultural resources statutes. These information needs may include legal notices; public meetings; media relations; and notifications to, or discussions with, special interest groups (e.g., Native American tribes), federal agencies, local governments, or interested individuals within the public. The Plan also identifies the formal and informal timing of public involvement activities and the types of individuals essential to the process.

The federal statutes requiring public involvement and/or consultation in the cultural resources compliance process include the NHPA, NEPA, NAGPRA, ARPA, and EO 13007. The AIRFA has no direct requirement for consultation with Native American (or other culturally affected) groups; however, the intent of this statute can be met only through the consultation process and is, therefore, included within this document. Specific guidance for consulting with Native American tribes under NAGPRA, AIRFA, and EO 13007 is discussed in Chapter 7.0. Guidance for public involvement under the NHPA, NEPA, and ARPA is provided in Sections 8.2 through 8.5.

The goal of the public involvement process is to provide adequate opportunity for members of the public to learn about, and provide comment on, cultural resources activities and policies conducted by YPG.

### **8.2 INDIVIDUALS AND GROUPS INVOLVED**

One of the keys to developing an effective cultural resource public involvement process lies in clearly identifying those individuals essential to the process. Although the list will vary depending on the nature of the policy or activity, DOD and civilian individuals and groups that may be critical to an effective public involvement process at YPG include (but are not limited to):

- YPG Garrison Manager
- YPG Command Judge Advocate
- YPG Public Affairs Officer
- YPG Cultural Resources Manager/Liaison for Native American Issues
- YPG Natural Resources Manager
- YPG NEPA Coordinator
- YPG Range Operations Control
- YPG Plans, Analysis, and Integration Office
- Arizona SHPO
- Advisory Council on Historic Preservation
- National Park Service Consulting Archaeologist
- Keeper of the National Register
- Applicable Cultural Groups (e.g., Native American tribes)

- Local Governments
- Other interested members of the public.

Roles and responsibilities of individuals involved in the public participation process have been discussed in Chapter 5.0.

### 8.3 TIMING

All of the statutory guidance requiring public involvement to support cultural resources compliance encourages public participation at the earliest possible time. Early coordination helps ensure that planning and decisions reflect cultural resources values, helps avoid possible delays later in the process, helps to identify potential conflicts and find appropriate resolutions, and allows for the widest feasible range of alternative actions to be considered. The NHPA and the ARPA do not provide specific timelines for public involvement activities; NEPA does have this guidance, however, and that information is provided in Section 8.4.2.

### 8.4 STATUTORY GUIDANCE

#### 8.4.1 National Historic Preservation Act (as amended)

Public involvement activities under the NHPA are largely focused within two sections of the Act—Sections 106 and Section 110. Section 110 considers agency responsibilities when identifying, evaluating, nominating, and protecting historic properties and indicates that the agency shall ensure

*. . . that the [agency's] preservation-related activities are carried out in consultation with other federal, state, and local agencies, Indian tribes, Native Hawaiian organizations carrying out historic preservation planning activities, and with the private sector . . .*

- The primary focus on public participation under the NHPA is in the Section 106 review process. This section of the Act provides for active participation by the public in various ways, depending on their particular interests. Useful principles of the public participation process include:
- Public participation in Section 106 review should support historic preservation objectives and help the federal agency meet its program responsibilities
- Both federal agencies and members of the public have responsibilities in a public participation program
- Public participation objectives should be approached with flexibility
- The level and type of public participation should be appropriate to the scale and type of undertaking and to the likelihood that historic properties may be present and subject to effect

To support these principles, the Arizona SHPO/THPO and Council can assist agency officials with ways of identifying interested persons and involving them in the review process, and in evaluating agency public participation programs. Within this framework, the Council recommends that agencies follow the procedures outlined in the following subsections.

*DETERMINE THE EXTENT OF PUBLIC PARTICIPATION NEEDED*

The initial step in the Section 106 process involves information needs. It is at this point in the process where YPG should begin to consider public participation. Aspects of the process to consider at this step include:

- Whether or not there are potential public participants (i.e., local governments, Indian tribes, public or private organizations) that might have knowledge of, or concerns with, historic properties in the area
- The level of effect that a project may have on historic properties
- The scale of the project
- Whether the project is of sufficient magnitude to warrant broad public involvement.

*IDENTIFY POTENTIAL PARTICIPANTS*

The NHPA, through its implementing regulations, directs agencies to seek information from “local governments, Indian tribes, public and private organizations, and other parties likely to have knowledge of, or concerns with, historic properties in the area.” For YPG, the Arizona SHPO/THPO can assist in developing an initial list of such parties, each of whom, when contacted, may be able to identify others. The Public Affairs Officer and Cultural Resources Manager at YPG should also be able to identify potential interested parties. In addition, YPG should also notify the public that it has initiated Section 106 review. This can be accomplished through articles in local newspapers, media releases, or other appropriate mechanisms (e.g., public meetings).

*SEEK INFORMATION*

People identified as having particular knowledge or concerns about potentially affected historic properties should be asked to share any information or concerns that they might have. Local governments and historic preservation organizations have official points of contact that may be useful in providing information and Indian tribes and other types of cultural groups may have traditional leaders who are highly knowledgeable about historic properties in the area. Small public and private organizations, such as local historical societies, museums, universities, and neighborhood organizations often have helpful information as well; however, these types of groups may need assistance in understanding the Section 106 process and how their information can best suit the needs of the project. Examples of individuals or organizations that may be able to assist YPG during information gathering include: the Arizona Historical Society, Century House Museum; the Yuma BLM Archaeologist; the Arizona Western College; Northern Arizona University; the tribes listed in Appendix G; and both avocational and professional archaeologists in the Yuma and southwest Arizona areas.

*COORDINATE WITH INTERESTED PARTIES*

Although the regulations do not stipulate a specific form of coordination with interested persons, the Council recommends that agencies seek their views, particularly when an interested party either has jurisdiction over an area (e.g., a property owner that might be affected by a YPG activity) or if an interested party is believed to have special knowledge of, or interest in, a particular property (e.g., a local historical society with interest in a potentially historic building).

If no historic properties are found within a project area, the regulations encourage (but do not require) an agency to notify interested persons that no properties have been found. Broad dissemination of “no property” findings are encouraged, because public review may reveal historic properties inadvertently missed in the identification effort and avoid future project delays.

If historic properties are found within a project area, then the agency must consider the effects that might occur to those properties and follow through with the remaining requirements of the Section 106 review process. Documentation of the remaining requirements of Section 106 review must be made available to the public. How the documentation is made available to the public will vary depending upon the scale and nature of the project and may be as simple as making documentary files available for public review. For more complex projects, more active participation between YPG and the public may be required. This could include formal or informal meetings, telephone conversations, public meetings, exchanges of documents, and/or on-site inspections.

#### *DOCUMENT THE PUBLIC PARTICIPATION EFFORTS*

Documenting the public involvement process (typically in a written chronological summary format) allows process reviewers, including federal courts in the event of litigation, to review the record and determine whether or not an agency has adequately involved the public.

Documentation should be sufficient to answer the following questions:

- What general efforts did the agency make to ensure that the public was aware that the undertaking was being planned, and that Section 106 review was being carried out?
- What particular elements of the public (and why these particular elements) were contacted for information or to identify concerns?
- What groups and individuals were identified as interested persons and how were they involved in the review process?
- What concerns were identified and how were they resolved?

The Council encourages maximum public participation in the Section 106 process and promotes full integration of public participation with other agency planning programs. As such, YPG should ensure that its projects and historic preservation issues are made known to the individuals and organizations discussed within this section; should elicit expressions of public interest, knowledge, and concern regarding any potentially affected historic properties; and, when possible, should resolve conflicts between YPG mission requirements and the historic preservation interests of the public.

NHPA guidance leaves the specific means of conducting public involvement to the parties involved, recognizing their ability to structure the process in a way most appropriate to their needs. However, the Council encourages a balanced and fair process, giving full consideration to the views and needs of all parties. Whatever means are employed; all of the participating individuals and groups must be given an opportunity to participate. NHPA guidance provides no time limit for this portion of the Section 106 process.

### 8.4.2 National Environmental Policy Act

Under NEPA, agencies have the responsibility to consider any potential effects that their activities might have on the environment—including historic properties. In many cases, NEPA undertakings may trigger the NHPA Section 106 review process. As a result, the two Acts are often linked when issues involving cultural resources identification and protection arise. Compliance with one Act does not necessarily satisfy the requirements of the other Act; however, recent revisions of 36 CFR 800 now allow agencies to use the NEPA process for Section 106 coordination as long as they notify the SHPO/THPO in advance that they intend to do so. In addition, agencies frequently coordinate studies (e.g., surveys to identify historic properties) and solicit public participation to satisfy the needs of both. The timing and interrelationship between NEPA and Section 106 public involvement efforts include:

- Consultation with participants for the identification, evaluation, and effect determination on any historic properties can take place concurrent with the development and preparation of NEPA documents (EAs and EISs)
- Draft EAs and EISs can be used as the basis for consultation under NEPA
- Results of consultation and public participation can be included in the final NEPA document

Unlike the public involvement processes associated with cultural resources-specific legislation, NEPA's implementing regulations (40 CFR Part 1500-1508) stipulate formal time lines for certain types of public coordination and review and it is during these specified periods that issues related to cultural resources frequently come to light. The critical time periods include:

- The **public scoping period**, which can be appropriate for either an EA or an EIS depending on the scope and magnitude of the project. The public scoping period is typically 30 days in length. For an EIS, public scoping meetings are generally held after publishing a "Notice of Intent" (NOI) (to prepare an EIS) in the Federal Register. For particularly controversial projects, early public scoping meetings are sometimes held (i.e., before the NOI release) in order to determine the degree of interest and/or concern by the public. As a part of the scoping process, agencies invite the participation of affected federal, state, and local agencies; any affected Native American tribes; the proponent of the action; and other interested persons. This can be accomplished by providing public notices of NEPA-related public meetings or hearings and the availability of draft documents. In all cases, agencies must mail notices to those requesting them. Depending on the nature of the action, agencies may also be required to notify Native American tribes, publish notices in newspapers or through other local media, use direct mailings, or post notices on, or off site, where the action will take place.
- The **public comment period** begins on the date that a draft EIS is published. Public hearings to consider comments (agency and public) on the draft are generally held after the draft EIS is published, but not before the public has had an opportunity to review the document for at least 15 days. The public comment period extends for 45 days, during which time public meetings are held to gather public citizen and agency input on the draft document. During this period, no decision on the project can be made.

- The **public review period** occurs after the final EA or EIS is published. For the EA, this is generally a 30-day period, within which the final EA and draft decision document (usually a Finding of No Significant Impact) must be available for public review. For an EIS, the public review period is also 30 days, and begins when the final EIS is filed with the Environmental Protection Agency. This 30-day period allows the preparing agency and the public to consider the conclusions of the document before the decision-maker makes a final decision on whether or not to proceed with the project. After the 30-day period ends, a Record of Decision (ROD) is published that formalizes the decision, as well as any significant factors that were used in the decision process.

### **8.4.3 Archaeological Resources Protection Act**

The Archeological Resources Protection Act (ARPA) has two fundamental purposes: (1) to protect irreplaceable archaeological resources on public and Native American lands from unauthorized excavation, removal, damage, alteration, or defacement; and (2) to increase communication and the exchange of information among governmental authorities, the professional archaeological community, and private individuals (most particularly those holding private archaeological collections). As a result, ARPA encourages the establishment of a program to increase public awareness of the significance of, and the need to protect, archaeological resources on public lands. Public awareness for these kinds of issues can be accomplished through the types of public outreach activities described in Section 8.5, through public service information seminars (e.g., YPG staff as guest speakers to local archaeological and societies and citizens groups), and through active participation in programs such as Arizona Archaeology and Heritage Awareness Month.

## **8.5 PUBLIC OUTREACH**

### **8.5.1 Tours and Other Outreach Events**

Yuma Proving Ground has hosted a number of regular public outreach events designed to foster a sense of community and encourage a strong relationship between the installation and groups and individuals within the Yuma area. The events typically involve a luncheon, entertainment, and guest speakers. Some of the events have included:

- Asian-Pacific Islander Week
- Hispanic Heritage Week.
- Native American Days
- Black History Week
- Armed Forces Day in conjunction with Marine Corps Air Station, Yuma
- Legislative Day at the Arizona State Legislature

Yuma Proving Ground has also supported Arizona Archaeology and Heritage Awareness Month by contributing posters and working educational booths at past Arizona Archaeology and Heritage Expos, has offered college students the opportunity to map and study YPG's unique geology and paleobotany, and has supported Boy Scouts of America Eagle Scout projects. Boy Scout projects have included:

- Construction of a nature trail (Arizona Western College n.d.)
- Staking a corridor for machinery to follow so that it would avoid petrified wood deposits (Figure 8-1)
- Mapping, survey, and photography of petrified wood areas.



Figure 8-1. Boy Scouts Placing Seibert Stakes to Protect Petrified Wood Areas

In addition, tours of the installation have been periodically provided by YPG for local Native American tribes. Past tours have included a visit by the Quechan, Cocopah, and Colorado River Indian Tribes, in late 1997, and an August 1998 tour for the Cocopah of the White Tanks Conservation District. The 1997 tour included a windshield tour of the Main Administrative Area and a robot demonstration at the Mine Countermine Demolition facility. The 1998 visit to White Tanks was to solicit views from the tribe on the preservation and conservation of Native American sites.

In recent years, YPG has hosted:

- Native American field visits to view mission project areas and cultural resource sites (Figure 8-2)
- Native American Elders tours of the YPG cantonment and portions of firing ranges
- A summer youth exchange program with a neighboring tribe that included activities and programs geared to appropriate age groups
- Camp Laguna "Sunday desert tours" for the Arizona Historical Society (Sanguinetti House Museum) in Yuma
- ARPA training presented by the Bureau of Indian Affairs (BIA), Yuma law enforcement agencies, and other government agencies to YPG and Native Americans
- Curation and collections management training to tribal museum personnel



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- A five-tribe joint project to produce cultural posters of each participating tribe that are planned as a part of a display located in the YPG headquarters building
- A “Gathering” of lower Colorado River basin cultural resources managers and tribes to discuss common goals and challenges
- A two-day Native American Consultation Conference to discuss cultural resources management.



*Figure 8-2. Native American Field Tour*

### 8.5.2 Static Displays—The Wahner E. Brooks Historical Exhibit

The Wahner E. Brooks Historical Exhibit is situated on Imperial Dam Road across from the entrance to the Yuma Test Center (formerly known as the Materiel Test Area). The exhibit consists of several static displays (e.g., tanks, personnel carriers, large guns [e.g., howitzers], small missiles, and a kiosk that combines text, photographs, and maps to describe the prehistory of the YPG area, Camp Laguna, and the history of mining in the YPG area (Figure 8-3). The



Figure 8-3. Wahner E. Brooks Historical Exhibit (Source: Peyton 2000)

display was expanded in 2007 and there are future plans to further expand the display.

Large military equipment static displays (e.g., tanks, artillery) have also been placed at several entrances to the installation, including the main entrance to YPG on Highway 95 (Figure 8-4) and at the entrance to the Yuma Test Center. Most of the static displays are situated in areas readily available to the public.

### 8.5.3 U.S. Army Heritage Center

The Heritage Center is located in Building 2 within the Main Administrative Area (Figures 8-5 and 8-6). The Center houses numerous historic photographs of YPG, artifacts associated with equipment that was tested and/or developed at YPG, and various interpretive displays and interactive kiosks. Many of the articles and photographs have been donated by individuals in the community with an interest in the YPG area. The Center contains no archaeological materials and would not meet the standards required for a museum or curation facility. Nonetheless, the Center has a large volume of interesting photographs and artifacts that are enjoyed yearly by hundreds of local and out-of-area visitors and makes an excellent outreach resource for the presentation of both World War II and more recent YPG military history.



Figure 8-4. Static Display at the Highway 95 Entrance to YPG (Source: Peyton 2005)



*Figure 8-5. Building 2, Main Administrative Building, early 1950s*



*Figure 8-6. Building 2 Today, Now the YPG Heritage Center*

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## APPENDICES

- A. Army Regulation AR 200-1, “Environmental Protection and Enhancement,” Chapter 6
- B. Federal Regulation 36 CFR 800
- C. Federal Regulation 36 CFR 61, Appendix A (Secretary of the Interior Guidelines for Professional Qualifications)
- D. Advisory Council on Historic Preservation Program Comment for Capehart and Wherry Era Army Family Housing and Associated Structures and Landscape Features (1949-1962)
- E. U.S. Army Yuma Proving Ground Dig Permit
- F. U.S. Army Yuma Proving Ground Native American Access Instructions for White Tanks
- G. Native American Tribes – Contact List
- H. U.S. Army Yuma Proving Ground Cultural Resources Inventory Survey Reports
- I. U.S. Army Yuma Proving Ground Archaeological Sites
- J. U.S. Army Yuma Proving Ground Commanding Officer’s 2004 Instruction Regarding Collection of Natural and Cultural Resources on YPG
- K. U.S. Army Yuma Proving Ground Standard Operating Procedures
  - 1. National Historic Preservation Act Section 106 Compliance Procedures
  - 2. National Register Evaluation Standards
  - 3. Archaeological Resource Protection Act of 1979 Compliance Procedures
  - 4. Archaeological Inventory Procedures
  - 5. Inadvertent Discovery of Archaeological Deposits
  - 6. National Register Eligibility Testing
  - 7. Analysis and Curation of Cultural Materials
  - 8. Native American Graves Protection and Repatriation Act Compliance
  - 9. Maintenance, Repair, Alteration, or Demolition of National Register-Eligible Historic Buildings and Structures

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## **APPENDIX A**

### Army Regulation AR 200-1, “Environmental Protection and Enhancement” Chapter 6: Cultural Resource Management



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**Army Regulation 200-1**

**Environmental Quality**

**Environmental  
Protection and  
Enhancement**

**Headquarters  
Department of the Army  
Washington, DC  
13 December 2007**

**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

AR 200-1  
Environmental Protection and Enhancement

This administrative revision, dated 13 December 2007--

- o Updates the policy regarding Army Program Guidance Memorandum (para 15-1) .
- o Corrects typographical errors throughout the publication.

Headquarters  
Department of the Army  
Washington, DC  
13 December 2007

**\*Army Regulation 200–1**

Effective 27 December 2007


**Environmental Quality**

**Environmental Protection and Enhancement**

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.  
*General, United States Army*  
Chief of Staff

Official:

  
JOYCE E. MORROW  
*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This publication is an administrative revision. The portions affected by this administrative revision are listed in the summary of change.

**Summary.** This regulation covers environmental protection and enhancement and provides the framework for the Army Environmental Management System.

**Applicability.** This regulation addresses environmental responsibilities of all Army organizations and agencies. Specifically, this regulation applies to—

- (a) Active Army, Army National Guard/Army National Guard of the United States, and United States Army Reserve.
- (b) Tenants, contractors, and lessees performing functions on real property under jurisdiction of the Department of the Army (for example, Army and Air Force Exchange Service (AAFES), Defense Commissary Agency (DECA)).
- (c) Activities and operations under the purview of the Army even when performed off of installations.
- (d) Formerly used defense sites (FUDS) and other excess properties managed by the Army. As used throughout this regulation, the term Army National Guard includes the Army National Guard of the United States.

Installations and facilities in foreign countries will comply with requirements of this regulation that specifically prescribe overseas requirements.

Contracts to operate Government-owned facilities will reference this regulation and will designate by specific citation the applicable provisions.

This regulation does not apply to civil works (CW) functions under the jurisdiction of the U.S. Army Corps of Engineers (USACE).

The terms "Army environmental programs" and "Army Environmental Program" must be read in context. All Army organizations, regardless of their organizational level or chain of command, have environmental responsibilities as part of their functions; these environmental responsibilities must be incorporated into the planning, programming, budgeting, and execution of their respective missions. The Assistant Chief of Staff for Installation Management, working through the Director of Environmental Programs (see Responsibilities, para 1–13x), has specific and more narrowly defined responsibilities that are planned, programmed, budgeted, and executed via assigned accounts. These accounts resource specifically prescribed and focused environmental efforts. Each organization must program and fund its environmental activities from the appropriate account of the proponent's operating budget, not necessarily an environmental account. Being mindful of the context in which requirements are articulated will help define the scope of the "program" being addressed and will preclude inappropriate resourcing decisions or expectations.

**Proponent and exception authority.** The proponent of this regulation is the Assistant Chief of Staff for Installation Management. The proponent has the authority to approve exceptions or waivers

to this regulation that are consistent with law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Army management control process.**

This regulation contains management control provisions and identifies key management controls that must be evaluated.

**Supplementation.** Supplementation of this regulation and establishment of command or local forms are prohibited without prior approval from Assistant Chief of Staff for Installation Management, 600 Army Pentagon, Washington, DC 20310–0600.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) through the chain of command to HQDA, DAIM–ED, 600 Army Pentagon, Washington, DC 20310–0600.

**Distribution.** This publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States and the United States Army Reserve.

\*This regulation supersedes AR 200–1, dated 28 August 2007.

f. Maintain and archive records and reports on all pesticide applications and operations made to all facilities and grounds to include those performed under contract by tenant and supported activities, by lessees per formal agreements, those installations and facilities in the base realignment and closure (BRAC) cleanup program, and for closing overseas installations. (PD: DODI 4150.7)

g. Ensure installation self-help programs are cost-effective and promote IPM approaches for control of minor nuisance pests through use of authorized pest management materiel, equipment, awareness training, and record keeping requirements. (PD: DODI 4150.7)

h. Ensure requirements for aerial pesticide applications over Army lands to control pests of medical, economic, or other emergencies or urgencies of military significance are addressed in an aerial spray statement of need (ASSON) and submitted to the U.S. Army Environmental Command (USAEC), NGB-ARNG, IMCOM-Korea, or IMCOM-Europe as appropriate. (PD: DODI 4150.7)

i. Ensure pest management commercial solicitations incorporate Army requirements for the application and safe handling of pesticides and are forwarded to USAEC, NGB-ARNG, IMCOM-Korea or IMCOM-Europe as appropriate for technical review prior to solicitation. (PD: DODI 4150.7; DOD 4150.7-M; DOD 4150.7-P)

j. Appoint an installation pest management coordinator (IPMC). (PD: DODI 4150.7)

## Chapter 6 Cultural Resources

### 6-1. Policy

Ensure that installations make informed decisions regarding the cultural resources under their control in compliance with public laws, in support of the military mission, and consistent with sound principles of cultural resources management.

### 6-2. Legal and other requirements

Statutes, laws, regulations, and other guidance applicable to the Army Cultural Resources Management Program include:

- a. Section 470, Title 16, United States Code (16 USC 470).
- b. Section 1996, Title 42, United States Code (42 USC 1996) and Executive Order (EO) 13007.
- c. Section 3001, Title 25, United States Code (25 USC 3001).
- d. Section 470aa-470mm, Title 16, United States Code (16 USC 470); Sections 431-433, Title 16, United States Code (16 USC 431-433); and Section 469, Title 16, United States Code (16 USC 469).
- e. Part 79, Title 36, Code of Federal Regulations (36 CFR 79).
- f. Part 800, Title 36, Code of Federal Regulations (36 CFR 800).
- g. Part 229, Title 32, Code of Federal Regulations (32 CFR 229).
- h. Part 10, Title 43, Code of Federal Regulations (43 CFR 10).
- i. DOD American Indian and Alaska Native Policy Memorandum, 20 October 1998.
- j. Presidential Memorandum for Heads of Executive Departments and Agencies, Government-to-Government Relations with Native American Tribal Governments, 29 April 1994.
- k. EO 13175.
- l. EO 13287.
- m. For overseas installations, the country-specific FGS requirements.

### 6-3. Major program goal

Develop and implement procedures to protect against encumbrances to mission by ensuring that Army installations effectively manage cultural resources.

### 6-4. Program requirements

- a. *General program management.*
  - (1) Develop integrated cultural resources management plans (ICRMPs) for use as a planning tool.
  - (2) Develop NHPA programmatic agreements (PAs) and memorandums of agreement (MOAs), Army alternate procedures (AAP) historic property component (HPC) plans, NAGPRA Comprehensive Agreements (CAs) and Plans of Action (POA), Cooperative Agreements, and other compliance documents as needed.
  - (3) Appoint a government (that is, Federal or State Army National Guard (ARNG)) employee as the installation cultural resources manager (CRM).
  - (4) Establish a government-to-government relationship with Federally recognized Indian Tribes, as needed. Initial formal government-to-government consultation with Federally recognized Indian Tribes will occur only between the

garrison commander (GC) or the Adjutant General (TAG) of an ARNG and the heads of tribal governments. Follow-on activities may be accomplished by staff.

(5) Establish a process that effects early coordination between the CRM and all staff elements, tenants, proponents of projects and actions, and other affected stakeholders to allow for proper identification, planning, and programming for cultural resource requirements.

*b. National Historic Preservation Act compliance.*

(1) Ensure that the GC functions as the agency official with responsibility for installation compliance with the National Historic Preservation Act (NHPA).

(2) Establish a historic preservation program, to include the identification, evaluation, and treatment of historic properties in consultation with the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officer (SHPO), local governments, Federally recognized Indian Tribes, Native Hawaiian organizations, and the public as appropriate. Document historic properties that will be substantially altered or destroyed as a result of Army actions. (LD: Section 110, NHPA; 36 CFR 800)

(3) Identify, evaluate, take into account, and treat the effects of all undertakings on historic properties. If an Army undertaking may affect properties of traditional religious or cultural significance to a Federally-recognized Indian Tribe, initiate consultation on a government-to-government basis. (LD: Section 106, NHPA; 36 CFR 800)

(4) Prepare and implement, as required, an NHPA Section 106 MOA, PA, or HPC, to address NHPA compliance for undertakings. Coordinate all NHPA compliance documents (for example, MOAs, PAs, HPCs) through the chain of command to obtain HQDA technical and legal review prior to execution. (LD: 36 CFR 800)

(5) Ensure that efforts to identify, evaluate, and treat historic properties consider the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, and are conducted under the supervision of personnel who meet applicable professional qualifications for undertaking such work. (LD: 36 CFR 61; Section 112, NHPA)

(6) Maintain an up-to-date listing of all historic properties, and where applicable, maintain historic status in conjunction with real property inventory and reporting guidelines. (LD: EO 13287)

(7) Withhold from public disclosure information about the location, character, or ownership of a historic property when the GC determines that disclosure may cause risk of harm to the historic property or may impede the use of a traditional religious site by practitioners. (LD: Section 304, NHPA)

(8) Consider alternatives for historic properties, including adaptive reuse, that are not needed for current or projected installation mission requirements. (LD: Section 111, NHPA)

(9) Nominate to the National Register of Historic Places (NRHP) only those properties that the Army plans to transfer out of Federal management through privatization efforts. Nominate other properties only when justified by exceptional circumstances. Avoid adversely affecting properties that are 50-years old or older that have not been evaluated for eligibility against NHPA criteria. Treat (assume) that all historic sites are eligible (that is, off-limits) until the SHPO concurs with the federal finding of non-eligible.

(10) Where disagreement occurs with the SHPO regarding the eligibility of a historic property for the NRHP, where applicable obtain a "Determination of Eligibility" from the Keeper of the National Register, National Park Service (NPS). (LD 36 CFR 800, 36 CFR 63)

(11) Undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected as a result of Army actions. (LD: 36 CFR 800)

*c. AIRFA, Executive Order 13007 and Executive Order 13175 compliance.*

(1) Consult with Federally recognized Indian Tribes to provide access to sacred sites on Army installations. Consistent with appropriate health, safety mission constraints provide access to allow the practice of traditional religions, rights and ceremonies. The GC will maintain the appropriate confidentiality of sacred site locations. The GC may impose reasonable restrictions and conditions on access to sacred sites on Army installations for the protection of health and safety, or for reasons of national security. (LD: EO 13007)

(2) Avoid adversely affecting the physical integrity of sacred sites. Ensure reasonable notice is provided to Federally-recognized Indian Tribes when proposed actions may adversely affect or restrict access to the ceremonial use of, or the physical integrity of, sacred sites. (LD: EO 13007)

(3) Consult with tribal governments before taking actions that affect Federally recognized Indian Tribes. Assess the impact of Army plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs and activities. (LD: EO 13175)

*d. Native American Graves Protection and Repatriation Act compliance.*

(1) Designate the GC as the Federal agency official with responsibility for installation compliance with Native American Graves Protection and Repatriation Act (NAGPRA). (LD: 43 CFR 10)

(2) Prepare CAs and POAs in coordination with Federally recognized Indian Tribes and Native Hawaiian organizations. Coordinate all NAGPRA CAs through the chain of command to obtain HQDA technical and legal review prior to execution. (LD: 43 CFR 10)

(3) Absent a CA, take reasonable steps to determine whether a planned activity (including MILCON) may result in the intentional excavation or inadvertent discovery of cultural items from Federally-owned or controlled Army lands. When cultural items may be encountered, the GC will implement consultation procedures and planning requirements of Section 3 and Section 5 of NAGPRA prior to issuing approval to proceed with the activity. (LD: 43 CFR 10.3 and 43 CFR 10.5)

(4) Establish initial communication with Federally recognized Indian Tribes via written correspondence between the GC and heads of tribal governments. Formally document all resulting agreements. (LD: 43 CFR 10)

(5) Inventory, summarize, and repatriate cultural items that are in existing collections under Army possession or control. Where there is a dispute as to the affiliation of cultural items, safeguard the cultural items until the dispute is resolved. (LD: 43 CFR 5, 6, 7, and 10)

*e. ARPA and AHPA Compliance.*

(1) Ensure the GC serves as the Federal land manager with responsibility for installation compliance with ARPA. (LD: 32 CFR 229)

(2) Ensure the GC serves as the Federal agency official with management authority over archeological collections and associated records. (LD: 36 CFR 79)

(3) Establish and include installation policy for management of, and for limitation of collection and removal of, paleontological resources in ICRMPs. Address known paleontological resources in any NEPA documentation prepared for actions that may impact or cause irreparable loss or destruction of such resources.

(4) Prohibit searching for or collection of historic properties (including archaeological resources) on Army installations except when authorized by the GC and pursuant to a permit issued under ARPA.

(5) Minimize the amount of archeological material remains permanently curated by reserving such treatment for diagnostic artifacts and other significant and environmentally sensitive material that will add important information to site interpretation.

(6) Curation of archeological materials from Army lands will occur only in 36 CFR 79-compliant repositories. Maximize use of off-installation facilities that are better able to provide for adequate long-term curatorial services.

(7) Do not disclose to the public information concerning the nature and location of any archaeological resource for which the excavation or removal requires a permit or other permission under ARPA or under any other provision of Federal law. (LD: Section 9a, ARPA 1979)

## **Chapter 7 Pollution Prevention**

### **7-1. Policy**

*a.* Pollution prevention is the Army's preferred approach, where timely and cost-effective, to achieve and maintain compliance with environmental laws and regulations.

*b.* Prevent pollution from all sources to the extent practicable by:

(1) Reducing pollutants at the source.

(2) Modifying manufacturing, packaging, and shipping processes, maintenance or other industrial practices.

(3) Modifying product designs.

(4) Developing and modifying acquisition systems.

(5) Recycling/reuse (to include implementing water and energy conservation measures), especially in closed-loop processes.

(6) Preventing disposal and transfer of pollution between media.

(7) Meeting affirmative procurement requirements and promoting the acquisition and use of environmentally preferable products and services.

(8) Promoting use of nontoxic substances.

*c.* Use pollution prevention to complement, and where practicable, replace traditional pollution control approaches.

*d.* Incorporate pollution prevention planning throughout the mission, operation, or product life cycle.

### **7-2. Legal and other requirements**

*a.* 42 USC 6901, (RCRA).

*b.* PL 109-58.

*c.* Sections 6901-6992k, Title 42, United States Code (42 USC 6901-6992k)).

*d.* Sections 13101-13102, Title 42, United States Code (42 USC 13101-13102).

*e.* EO 13423.

*f.* DODI 4715.4.

## **APPENDIX B**

Federal Regulation 36 CFR 800, “Protection of Historic Properties”



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**36 CFR PART 800 -- PROTECTION OF HISTORIC PROPERTIES (incorporating amendments effective August 5, 2004)**

**Subpart A -- Purposes and Participants**

Sec.

800.1 Purposes.

800.2 Participants in the Section 106 process.

**Subpart B -- The Section 106 Process**

800.3 Initiation of the section 106 process.

800.4 Identification of historic properties.

800.5 Assessment of adverse effects.

800.6 Resolution of adverse effects.

800.7 Failure to resolve adverse effects.

800.8 Coordination with the National Environmental Policy act.

800.9 Council review of Section 106 compliance.

800.10 Special requirements for protecting National Historic Landmarks.

800.11 Documentation standards.

800.12 Emergency situations.

800.13 Post-review discoveries.

**Subpart C -- Program Alternatives**

800.14 Federal agency program alternatives.

800.15 Tribal, State and Local Program Alternatives. (Reserved)

800.16 Definitions.

Appendix A – Criteria for Council involvement in reviewing individual section 106 cases

**Authority:** 16 U.S.C. 470s.

**Subpart A-Purposes and Participants**

**§ 800.1 Purposes.**

(a) *Purposes of the section 106 process.* Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Council a reasonable opportunity to comment on such undertakings. The procedures in this part define how Federal agencies meet these statutory responsibilities. The section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of

project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

(b) *Relation to other provisions of the act.* Section 106 is related to other provisions of the act designed to further the national policy of historic preservation. References to those provisions are included in this part to identify circumstances where they may affect actions taken to meet section 106 requirements. Such provisions may have their own implementing regulations or guidelines and are not intended to be implemented by the procedures in this part except insofar as they relate to the section 106 process. Guidelines, policies and procedures issued by other agencies, including the Secretary, have been cited in this part for ease of access and are not incorporated by reference.

(c) *Timing.* The agency official must complete the section 106 process “prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license.” This does not prohibit agency official from conducting or authorizing nondestructive project planning activities before completing compliance with section 106, provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties. The agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking.

**§ 800.2 Participants in the Section 106 process.**

(a) *Agency official.* It is the statutory obligation of the Federal agency to fulfill the requirements of section 106 and to ensure that an agency official with jurisdiction over an undertaking takes legal and financial responsibility for section 106 compliance in accordance with subpart B of this part. The agency official has approval authority for the undertaking and can commit the Federal agency to take appropriate action for a specific undertaking as a result of section 106 compliance. For the purposes of subpart C of this part, the agency official has the authority to commit the Federal agency to any obligation it may assume in the

implementation of a program alternative. The agency official may be a State, local, or tribal government official who has been delegated legal responsibility for compliance with section 106 in accordance with Federal law.

(1) *Professional standards.* Section 112(a)(1)(A) of the act requires each Federal agency responsible for the protection of historic resources, including archeological resources, to ensure that all actions taken by employees or contractors of the agency shall meet professional standards under regulations developed by the Secretary.

(2) *Lead Federal agency.* If more than one Federal agency is involved in an undertaking, some or all the agencies may designate a lead Federal agency, which shall identify the appropriate official to serve as the agency official who shall act on their behalf, fulfilling their collective responsibilities under section 106. Those Federal agencies that do not designate a lead Federal agency remain individually responsible for their compliance with this part.

(3) *Use of contractors.* Consistent with applicable conflict of interest laws, the agency official may use the services of applicants, consultants, or designees to prepare information, analyses and recommendations under this part. The agency official remains legally responsible for all required findings and determinations. If a document or study is prepared by a non-Federal party, the agency official is responsible for ensuring that its content meets applicable standards and guidelines.

(4) *Consultation.* The agency official shall involve the consulting parties described in paragraph (c) of this section in findings and determinations made during the section 106 process. The agency official should plan consultations appropriate to the scale of the undertaking and the scope of Federal involvement and coordinated with other requirements of other statutes, as applicable, such as the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, the Archeological Resources Protection Act and agency-specific legislation. The Council encourages the agency official to use to the extent possible existing agency procedures and mechanisms to fulfill the consultation requirements of this part.

(b) *Council.* The Council issues regulations to implement section 106,

provides guidance and advice on the application of the procedures in this part, and generally oversees the operation of the section 106 process. The Council also consults with and comments to agency officials on individual undertakings and programs that affect historic properties.

(1) *Council entry into the section 106 process.* When the Council determines that its involvement is necessary to ensure that the purposes of section 106 and the act are met, the Council may enter the section 106 process. Criteria guiding Council decisions to enter the section 106 process are found in appendix A to this part. The Council will document that the criteria have been met and notify the parties to the section 106 process as required by this part.

(2) *Council assistance.* Participants in the section 106 process may seek advice, guidance and assistance from the Council on the application of this part to specific undertakings, including the resolution of disagreements, whether or not the Council is formally involved in the review of the undertaking. If questions arise regarding the conduct of the section 106 process, participants are encouraged to obtain the Council's advice on completing the process.

(c) *Consulting parties.* The following parties have consultative roles in the section 106 process.

(1) *State historic preservation officer.*

(i) The State historic preservation officer (SHPO) reflects the interests of the State and its citizens in the preservation of their cultural heritage. In accordance with section 101(b)(3) of the act, the SHPO advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development.

(ii) If an Indian tribe has assumed the functions of the SHPO in the section 106 process for undertakings on tribal lands, the SHPO shall participate as a consulting party if the undertaking takes place on tribal lands but affects historic properties off tribal lands, if requested in accordance with § 800.3(c)(1), or if the Indian tribe agrees to include the SHPO pursuant to § 800.3(f)(3).

(2) *Indian tribes and Native Hawaiian organizations.*

(i) *Consultation on tribal lands.*

(A) *Tribal historic preservation officer.* For a tribe that has assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act, the tribal historic preservation officer (THPO) appointed or designated in accordance with the act is the official representative for the purposes of section 106. The agency official shall consult with the THPO in lieu of the SHPO regarding undertakings occurring on or affecting historic properties on tribal lands.

(B) *Tribes that have not assumed SHPO functions.* When an Indian tribe has not assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act, the agency official shall consult with a representative designated by such Indian tribe in addition to the SHPO regarding undertakings occurring on or affecting historic properties on its tribal lands. Such Indian tribes have the same rights of consultation and concurrence that the THPOs are given throughout subpart B of this part, except that such consultations shall be in addition to and on the same basis as consultation with the SHPO.

(ii) *Consultation on historic properties of significance to Indian tribes and Native Hawaiian organizations.* Section 101(d)(6)(B) of the act requires the agency official to consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking. This requirement applies regardless of the location of the historic property. Such Indian tribe or Native Hawaiian organization shall be a consulting party.

(A) The agency official shall ensure that consultation in the section 106 process provides the Indian tribe or Native Hawaiian organization a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects. It is the responsibility of the agency official to make a reasonable and good faith effort to identify Indian tribes and Native Hawaiian organizations that shall be consulted in the section 106 process. Consultation should commence early in the planning process, in order to identify and discuss relevant

preservation issues and resolve concerns about the confidentiality of information on historic properties.

(B) The Federal Government has a unique legal relationship with Indian tribes set forth in the Constitution of the United States, treaties, statutes, and court decisions. Consultation with Indian tribes should be conducted in a sensitive manner respectful of tribal sovereignty. Nothing in this part alters, amends, repeals, interprets or modifies tribal sovereignty, any treaty rights, or other rights of an Indian tribe, or preempts, modifies or limits the exercise of any such rights.

(C) Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes. The agency official shall consult with representatives designated or identified by the tribal government or the governing body of a Native Hawaiian organization. Consultation with Indian tribes and Native Hawaiian organizations should be conducted in a manner sensitive to the concerns and needs of the Indian tribe or Native Hawaiian organization.

(D) When Indian tribes and Native Hawaiian organizations attach religious and cultural significance to historic properties off tribal lands, section 101(d)(6)(B) of the act requires Federal agencies to consult with such Indian tribes and Native Hawaiian organizations in the section 106 process. Federal agencies should be aware that frequently historic properties of religious and cultural significance are located on ancestral, aboriginal, or ceded lands of Indian tribes and Native Hawaiian organizations and should consider that when complying with the procedures in this part.

(E) An Indian tribe or a Native Hawaiian organization may enter into an agreement with an agency official that specifies how they will carry out responsibilities under this part, including concerns over the confidentiality of information. An agreement may cover all aspects of tribal participation in the section 106 process, provided that no modification may be made in the roles of other parties to the section 106 process without their consent. An agreement may grant the Indian tribe or Native Hawaiian organization additional rights to participate or concur in agency decisions in the section 106 process beyond those specified in subpart B of this part. The agency official shall

provide a copy of any such agreement to the Council and the appropriate SHPOs.

(F) An Indian tribe that has not assumed the responsibilities of the SHPO for section 106 on tribal lands under section 101(d)(2) of the act may notify the agency official in writing that it is waiving its rights under § 800.6(c)(1) to execute a memorandum of agreement.

(3) *Representatives of local governments.* A representative of a local government with jurisdiction over the area in which the effects of an undertaking may occur is entitled to participate as a consulting party. Under other provisions of Federal law, the local government may be authorized to act as the agency official for purposes of section 106.

(4) *Applicants for Federal assistance, permits, licenses and other approvals.* An applicant for Federal assistance or for a Federal permit, license or other approval is entitled to participate as a consulting party as defined in this part. The agency official may authorize an applicant or group of applicants to initiate consultation with the SHPO/THPO and others, but remains legally responsible for all findings and determinations charged to the agency official. The agency official shall notify the SHPO/THPO when an applicant or group of applicants is so authorized. A Federal agency may authorize all applicants in a specific program pursuant to this section by providing notice to all SHPO/THPOs. Federal agencies that provide authorizations to applicants remain responsible for their government to government relationships with Indian tribes.

(5) *Additional consulting parties.* Certain individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties.

(d) *The public.*

(1) *Nature of involvement.* The views of the public are essential to informed Federal decisionmaking in the section 106 process. The agency official shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties, the likely interest of the public in the effects on historic properties, confidentiality concerns of private individuals and businesses, and

the relationship of the Federal involvement to the undertaking.

(2) *Providing notice and information.* The agency official must, except where appropriate to protect confidentiality concerns of affected parties, provide the public with information about an undertaking and its effects on historic properties and seek public comment and input. Members of the public may also provide views on their own initiative for the agency official to consider in decisionmaking.

(3) *Use of agency procedures.* The agency official may use the agency's procedures for public involvement under the National Environmental Policy Act or other program requirements in lieu of public involvement requirements in subpart B of this part, if they provide adequate opportunities for public involvement consistent with this subpart.

#### **Subpart B-The section 106 Process**

##### **§ 800.3 Initiation of the section 106 process.**

(a) *Establish undertaking.* The agency official shall determine whether the proposed Federal action is an undertaking as defined in § 800.16(y) and, if so, whether it is a type of activity that has the potential to cause effects on historic properties.

(1) *No potential to cause effects.* If the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, the agency official has no further obligations under section 106 or this part.

(2) *Program alternatives.* If the review of the undertaking is governed by a Federal agency program alternative established under § 800.14 or a programmatic agreement in existence before January 11, 2001, the agency official shall follow the program alternative.

(b) *Coordinate with other reviews.* The agency official should coordinate the steps of the section 106 process, as appropriate, with the overall planning schedule for the undertaking and with any reviews required under other authorities such as the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, the Archeological Resources Protection Act and agency-specific legislation, such as section 4(f) of the Department of

Transportation Act. Where consistent with the procedures in this subpart, the agency official may use information developed for other reviews under Federal, State or tribal law to meet the requirements of section 106.

(c) *Identify the appropriate SHPO and/or THPO.* As part of its initial planning, the agency official shall determine the appropriate SHPO or SHPOs to be involved in the section 106 process. The agency official shall also determine whether the undertaking may occur on or affect historic properties on any tribal lands and, if so, whether a THPO has assumed the duties of the SHPO. The agency official shall then initiate consultation with the appropriate officer or officers.

(1) *Tribal assumption of SHPO responsibilities.* Where an Indian tribe has assumed the section 106 responsibilities of the SHPO on tribal lands pursuant to section 101(d)(2) of the act, consultation for undertakings occurring on tribal land or for effects on tribal land is with the THPO for the Indian tribe in lieu of the SHPO. Section 101(d)(2)(D)(iii) of the act authorizes owners of properties on tribal lands which are neither owned by a member of the tribe nor held in trust by the Secretary for the benefit of the tribe to request the SHPO to participate in the section 106 process in addition to the THPO.

(2) *Undertakings involving more than one State.* If more than one State is involved in an undertaking, the involved SHPOs may agree to designate a lead SHPO to act on their behalf in the section 106 process, including taking actions that would conclude the section 106 process under this subpart.

(3) *Conducting consultation.* The agency official should consult with the SHPO/THPO in a manner appropriate to the agency planning process for the undertaking and to the nature of the undertaking and its effects on historic properties.

(4) *Failure of the SHPO/THPO to respond.* If the SHPO/THPO fails to respond within 30 days of receipt of a request for review of a finding or determination, the agency official may either proceed to the next step in the process based on the finding or determination or consult with the Council in lieu of the SHPO/THPO. If the SHPO/THPO re-enters the section 106 process, the agency official shall continue the consultation without being required to reconsider previous findings or determinations.

(d) *Consultation on tribal lands.*

Where the Indian tribe has not assumed the responsibilities of the SHPO on tribal lands, consultation with the Indian tribe regarding undertakings occurring on such tribe's lands or effects on such tribal lands shall be in addition to and on the same basis as consultation with the SHPO. If the SHPO has withdrawn from the process, the agency official may complete the section 106 process with the Indian tribe and the Council, as appropriate. An Indian tribe may enter into an agreement with a SHPO or SHPOs specifying the SHPO's participation in the section 106 process for undertakings occurring on or affecting historic properties on tribal lands.

(e) *Plan to involve the public.* In consultation with the SHPO/THPO, the agency official shall plan for involving the public in the section 106 process. The agency official shall identify the appropriate points for seeking public input and for notifying the public of proposed actions, consistent with § 800.2(d).

(f) *Identify other consulting parties.* In consultation with the SHPO/THPO, the agency official shall identify any other parties entitled to be consulting parties and invite them to participate as such in the section 106 process. The agency official may invite others to participate as consulting parties as the section 106 process moves forward.

(1) *Involving local governments and applicants.* The agency official shall invite any local governments or applicants that are entitled to be consulting parties under § 800.2(c).

(2) *Involving Indian tribes and Native Hawaiian organizations.* The agency official shall make a reasonable and good faith effort to identify any Indian tribes or Native Hawaiian organizations that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties. Such Indian tribe or Native Hawaiian organization that requests in writing to be a consulting party shall be one.

(3) *Requests to be consulting parties.* The agency official shall consider all written requests of individuals and organizations to participate as consulting parties and, in consultation with the SHPO/THPO and any Indian tribe upon whose tribal lands an undertaking occurs or affects historic properties, determine which should be consulting parties.

(g) *Expediting consultation.* A consultation by the agency official with the SHPO/THPO and other consulting parties may address multiple steps in §§ 800.3 through 800.6 where the agency official and the SHPO/THPO agree it is appropriate as long as the consulting parties and the public have an adequate opportunity to express their views as provided in § 800.2(d).

**§ 800.4 Identification of historic properties.**

(a) *Determine scope of identification efforts.* In consultation with the SHPO/THPO, the agency official shall:

(1) Determine and document the area of potential effects, as defined in § 800.16(d);

(2) Review existing information on historic properties within the area of potential effects, including any data concerning possible historic properties not yet identified;

(3) Seek information, as appropriate, from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, and identify issues relating to the undertaking's potential effects on historic properties; and

(4) Gather information from any Indian tribe or Native Hawaiian organization identified pursuant to § 800.3(f) to assist in identifying properties, including those located off tribal lands, which may be of religious and cultural significance to them and may be eligible for the National Register, recognizing that an Indian tribe or Native Hawaiian organization may be reluctant to divulge specific information regarding the location, nature, and activities associated with such sites. The agency official should address concerns raised about confidentiality pursuant to § 800.11(c).

(b) *Identify historic properties.* Based on the information gathered under paragraph (a) of this section, and in consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to properties within the area of potential effects, the agency official shall take the steps necessary to identify historic properties within the area of potential effects.

(1) *Level of effort.* The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews,

sample field investigation, and field survey. The agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects. The Secretary's Standards and Guidelines for Identification provide guidance on this subject. The agency official should also consider other applicable professional, State, tribal and local laws, standards and guidelines. The agency official shall take into account any confidentiality concerns raised by Indian tribes or Native Hawaiian organizations during the identification process.

(2) *Phased identification and evaluation.* Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. The agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a memorandum of agreement executed pursuant to § 800.6, a programmatic agreement executed pursuant to § 800.14 (b), or the documents used by an agency official to comply with the National Environmental Policy Act pursuant to § 800.8. The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the SHPO/THPO and any other consulting parties. As specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties in accordance with paragraphs (b)(1) and (c) of this section.

(c) *Evaluate historic significance.*

(1) *Apply National Register criteria.*

In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified properties and guided by the Secretary's Standards and Guidelines for Evaluation, the agency official shall

apply the National Register criteria (36 CFR part 63) to properties identified within the area of potential effects that have not been previously evaluated for National Register eligibility. The passage of time, changing perceptions of significance, or incomplete prior evaluations may require the agency official to reevaluate properties previously determined eligible or ineligible. The agency official shall acknowledge that Indian tribes and Native Hawaiian organizations possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them.

(2) *Determine whether a property is eligible.* If the agency official determines any of the National Register criteria are met and the SHPO/THPO agrees, the property shall be considered eligible for the National Register for section 106 purposes. If the agency official determines the criteria are not met and the SHPO/THPO agrees, the property shall be considered not eligible. If the agency official and the SHPO/THPO do not agree, or if the Council or the Secretary so request, the agency official shall obtain a determination of eligibility from the Secretary pursuant to 36 CFR part 63. If an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to a property off tribal lands does not agree, it may ask the Council to request the agency official to obtain a determination of eligibility.

(d) *Results of identification and evaluation.*

(1) *No historic properties affected.* If the agency official finds that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in § 800.16(i), the agency official shall provide documentation of this finding, as set forth in § 800.11(d), to the SHPO/THPO. The agency official shall notify all consulting parties, including Indian tribes and Native Hawaiian organizations, and make the documentation available for public inspection prior to approving the undertaking.

(i) If the SHPO/THPO, or the Council if it has entered the section 106 process, does not object within 30 days of receipt of an adequately documented finding, the agency official's responsibilities under section 106 are fulfilled.

(ii) If the SHPO/THPO objects within 30 days of receipt of an adequately documented finding, the agency official shall either consult with the objecting party to resolve the disagreement, or forward the finding and supporting documentation to the Council and request that the Council review the finding pursuant to paragraphs (d)(1)(iv)(A) through (d)(1)(iv)(C) of this section. When an agency official forwards such requests for review to the Council, the agency official shall concurrently notify all consulting parties that such a request has been made and make the request documentation available to the public.

(iii) During the SHPO/THPO 30 day review period, the Council may object to the finding and provide its opinion regarding the finding to the agency official and, if the Council determines the issue warrants it, the head of the agency. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part. The agency shall then proceed according to paragraphs (d)(1)(iv)(B) and (d)(1)(iv)(C) of this section.

(iv)(A) Upon receipt of the request under paragraph (d)(1)(ii) of this section, the Council will have 30 days in which to review the finding and provide the agency official and, if the Council determines the issue warrants it, the head of the agency with the Council's opinion regarding the finding. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part. If the Council does not respond within 30 days of receipt of the request, the agency official's responsibilities under section 106 are fulfilled.

(B) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall take into account the Council's opinion before the agency reaches a final decision on the finding.

(C) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall then prepare a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's opinion, and provide it to the Council, the SHPO/THPO, and the consulting parties. The head of the agency may delegate his or her duties under this paragraph to the agency's senior policy official. If the agency official's initial finding will be revised, the agency official shall proceed in

accordance with the revised finding. If the final decision of the agency is to affirm the initial agency finding of no historic properties affected, once the summary of the decision has been sent to the Council, the SHPO/THPO, and the consulting parties, the agency official's responsibilities under section 106 are fulfilled.

(D) The Council shall retain a record of agency responses to Council opinions on their findings of no historic properties affected. The Council shall make this information available to the public.

(2) *Historic properties affected.* If the agency official finds that there are historic properties which may be affected by the undertaking, the agency official shall notify all consulting parties, including Indian tribes or Native Hawaiian organizations, invite their views on the effects and assess adverse effects, if any, in accordance with § 800.5.

#### **§ 800.5 Assessment of adverse effects.**

(a) *Apply criteria of adverse effect.* In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the area of potential effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public.

(1) *Criteria of adverse effect.* An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

(2) *Examples of adverse effects.* Adverse effects on historic properties include, but are not limited to:

(i) Physical destruction of or damage to all or part of the property;

(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;

(iii) Removal of the property from its historic location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

(3) *Phased application of criteria.* Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process in applying the criteria of adverse effect consistent with phased identification and evaluation efforts conducted pursuant to § 800.4(b)(2).

(b) *Finding of no adverse effect.* The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of paragraph (a)(1) of this section or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

(c) *Consulting party review.* If the agency official proposes a finding of no adverse effect, the agency official shall notify all consulting parties of the finding and provide them with the documentation specified in § 800.11(e). The SHPO/THPO shall have 30 days from receipt to review the finding.

(1) *Agreement with, or no objection to, finding.* Unless the Council is reviewing the finding pursuant to paragraph (c)(3) of this section, the agency official may proceed after the close of the 30 day review period if the SHPO/THPO has agreed with the finding or has not provided a response, and no consulting party has objected. The agency official shall then carry out the undertaking in accordance with paragraph (d)(1) of this section.

(2) *Disagreement with finding.*

(i) If within the 30 day review period the SHPO/THPO or any consulting party notifies the agency official in writing that it disagrees with the finding and specifies the reasons for the disagreement in the notification, the agency official shall either consult with the party to resolve the disagreement, or request the Council to review the finding pursuant to paragraphs (c)(3)(i) and (c)(3)(ii) of this section. The agency official shall include with such request the documentation specified in § 800.11(e). The agency official shall also concurrently notify all consulting parties that such a submission has been made and make the submission documentation available to the public.

(ii) If within the 30 day review period the Council provides the agency official and, if the Council determines the issue warrants it, the head of the agency, with a written opinion objecting to the finding, the agency shall then proceed according to paragraph (c)(3)(ii) of this section. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part.

(iii) The agency official should seek the concurrence of any Indian tribe or Native Hawaiian organization that has made known to the agency official that it attaches religious and cultural significance to a historic property subject to the finding. If such Indian tribe or Native Hawaiian organization disagrees with the finding, it may within the 30 day review period specify the reasons for disagreeing with the finding and request the Council to review and object to the finding pursuant to paragraph (c)(2)(ii) of this section.

(3) *Council review of findings.*

(i) When a finding is submitted to the Council pursuant to paragraph (c)(2)(i) of this section, the Council shall review the finding and provide the agency official and, if the Council determines the issue warrants it, the head of the agency with its opinion as to whether the adverse effect criteria have

been correctly applied. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part. The Council will provide its opinion within 15 days of receiving the documented finding from the agency official. The Council at its discretion may extend that time period for 15 days, in which case it shall notify the agency of such extension prior to the end of the initial 15 day period. If the Council does not respond within the applicable time period, the agency official's responsibilities under section 106 are fulfilled.

(ii)(A) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall take into account the Council's opinion in reaching a final decision on the finding.

(B) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall prepare a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's opinion, and provide it to the Council, the SHPO/THPO, and the consulting parties. The head of the agency may delegate his or her duties under this paragraph to the agency's senior policy official. If the agency official's initial finding will be revised, the agency official shall proceed in accordance with the revised finding. If the final decision of the agency is to affirm the initial finding of no adverse effect, once the summary of the decision has been sent to the Council, the SHPO/THPO, and the consulting parties, the agency official's responsibilities under section 106 are fulfilled.

(C) The Council shall retain a record of agency responses to Council opinions on their findings of no adverse effects. The Council shall make this information available to the public.

(d) *Results of assessment.*

(1) *No adverse effect.* The agency official shall maintain a record of the finding and provide information on the finding to the public on request, consistent with the confidentiality provisions of § 800.11(c). Implementation of the undertaking in accordance with the finding as documented fulfills the agency official's responsibilities under section 106 and this part. If the agency official will not conduct the undertaking as proposed in the finding, the agency official shall reopen consultation under paragraph (a) of this section.

(2) *Adverse effect.* If an adverse effect is found, the agency official shall consult further to resolve the adverse effect pursuant to § 800.6.

**§ 800.6 Resolution of adverse effects.**

(a) *Continue consultation.* The agency official shall consult with the SHPO/THPO and other consulting parties, including Indian tribes and Native Hawaiian organizations, to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties.

(1) *Notify the Council and determine Council participation.* The agency official shall notify the Council of the adverse effect finding by providing the documentation specified in § 800.11(e).

(i) The notice shall invite the Council to participate in the consultation when:

(A) The agency official wants the Council to participate;

(B) The undertaking has an adverse effect upon a National Historic Landmark; or

(C) A programmatic agreement under § 800.14(b) will be prepared;

(ii) The SHPO/THPO, an Indian tribe or Native Hawaiian organization, or any other consulting party may at any time independently request the Council to participate in the consultation.

(iii) The Council shall advise the agency official and all consulting parties whether it will participate within 15 days of receipt of notice or other request. Prior to entering the process, the Council shall provide written notice to the agency official and the consulting parties that its decision to participate meets the criteria set forth in appendix A to this part. The Council shall also advise the head of the agency of its decision to enter the process. Consultation with Council participation is conducted in accordance with paragraph (b)(2) of this section.

(iv) If the Council does not join the consultation, the agency official shall proceed with consultation in accordance with paragraph (b)(1) of this section.

(2) *Involve consulting parties.* In addition to the consulting parties identified under § 800.3(f), the agency official, the SHPO/THPO and the Council, if participating, may agree to invite other individuals or organizations to become consulting parties. The agency official shall invite any individual or organization that will assume a specific role or responsibility

in a memorandum of agreement to participate as a consulting party.

(3) *Provide documentation.* The agency official shall provide to all consulting parties the documentation specified in § 800.11(e), subject to the confidentiality provisions of § 800.11(c), and such other documentation as may be developed during the consultation to resolve adverse effects.

(4) *Involve the public.* The agency official shall make information available to the public, including the documentation specified in § 800.11(e), subject to the confidentiality provisions of § 800.11(c). The agency official shall provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking. The agency official should use appropriate mechanisms, taking into account the magnitude of the undertaking and the nature of its effects upon historic properties, the likely effects on historic properties, and the relationship of the Federal involvement to the undertaking to ensure that the public's views are considered in the consultation. The agency official should also consider the extent of notice and information concerning historic preservation issues afforded the public at earlier steps in the section 106 process to determine the appropriate level of public involvement when resolving adverse effects so that the standards of § 800.2(d) are met.

(5) *Restrictions on disclosure of information.* Section 304 of the act and other authorities may limit the disclosure of information under paragraphs (a)(3) and (a)(4) of this section. If an Indian tribe or Native Hawaiian organization objects to the disclosure of information or if the agency official believes that there are other reasons to withhold information, the agency official shall comply with § 800.11(c) regarding the disclosure of such information.

(b) *Resolve adverse effects.*

(1) *Resolution without the Council.*

(i) The agency official shall consult with the SHPO/THPO and other consulting parties to seek ways to avoid, minimize or mitigate the adverse effects.

(ii) The agency official may use standard treatments established by the Council under § 800.14(d) as a basis for a memorandum of agreement.

(iii) If the Council decides to join the consultation, the agency official shall follow paragraph (b)(2) of this section.

(iv) If the agency official and the SHPO/THPO agree on how the adverse

effects will be resolved, they shall execute a memorandum of agreement. The agency official must submit a copy of the executed memorandum of agreement, along with the documentation specified in § 800.11(f), to the Council prior to approving the undertaking in order to meet the requirements of section 106 and this subpart.

(v) If the agency official, and the SHPO/THPO fail to agree on the terms of a memorandum of agreement, the agency official shall request the Council to join the consultation and provide the Council with the documentation set forth in § 800.11(g). If the Council decides to join the consultation, the agency official shall proceed in accordance with paragraph (b)(2) of this section. If the Council decides not to join the consultation, the Council will notify the agency and proceed to comment in accordance with § 800.7(c).

(2) *Resolution with Council participation.* If the Council decides to participate in the consultation, the agency official shall consult with the SHPO/THPO, the Council, and other consulting parties, including Indian tribes and Native Hawaiian organizations under § 800.2(c)(3), to seek ways to avoid, minimize or mitigate the adverse effects. If the agency official, the SHPO/THPO, and the Council agree on how the adverse effects will be resolved, they shall execute a memorandum of agreement.

(c) *Memorandum of agreement.* A memorandum of agreement executed and implemented pursuant to this section evidences the agency official's compliance with section 106 and this part and shall govern the undertaking and all of its parts. The agency official shall ensure that the undertaking is carried out in accordance with the memorandum of agreement.

(1) *Signatories.* The signatories have sole authority to execute, amend or terminate the agreement in accordance with this subpart.

(i) The agency official and the SHPO/THPO are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(1) of this section.

(ii) The agency official, the SHPO/THPO, and the Council are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(2) of this section.

(iii) The agency official and the Council are signatories to a



memorandum of agreement executed pursuant to § 800.7(a)(2).

(2) *Invited signatories.*

(i) The agency official may invite additional parties to be signatories to a memorandum of agreement. Any such party that signs the memorandum of agreement shall have the same rights with regard to seeking amendment or termination of the memorandum of agreement as other signatories.

(ii) The agency official may invite an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties located off tribal lands to be a signatory to a memorandum of agreement concerning such properties.

(iii) The agency official should invite any party that assumes a responsibility under a memorandum of agreement to be a signatory.

(iv) The refusal of any party invited to become a signatory to a memorandum of agreement pursuant to paragraph (c)(2) of this section does not invalidate the memorandum of agreement.

(3) *Concurrence by others.* The agency official may invite all consulting parties to concur in the memorandum of agreement. The signatories may agree to invite others to concur. The refusal of any party invited to concur in the memorandum of agreement does not invalidate the memorandum of agreement.

(4) *Reports on implementation.* Where the signatories agree it is appropriate, a memorandum of agreement shall include a provision for monitoring and reporting on its implementation.

(5) *Duration.* A memorandum of agreement shall include provisions for termination and for reconsideration of terms if the undertaking has not been implemented within a specified time.

(6) *Discoveries.* Where the signatories agree it is appropriate, a memorandum of agreement shall include provisions to deal with the subsequent discovery or identification of additional historic properties affected by the undertaking.

(7) *Amendments.* The signatories to a memorandum of agreement may amend it. If the Council was not a signatory to the original agreement and the signatories execute an amended agreement, the agency official shall file it with the Council.

(8) *Termination.* If any signatory determines that the terms of a memorandum of agreement cannot be or are not being carried out, the signatories

shall consult to seek amendment of the agreement. If the agreement is not amended, any signatory may terminate it. The agency official shall either execute a memorandum of agreement with signatories under paragraph (c)(1) of this section or request the comments of the Council under § 800.7(a).

(9) *Copies.* The agency official shall provide each consulting party with a copy of any memorandum of agreement executed pursuant to this subpart.

**§ 800.7 Failure to resolve adverse effects.**

(a) *Termination of consultation.* After consulting to resolve adverse effects pursuant to § 800.6(b)(2), the agency official, the SHPO/THPO, or the Council may determine that further consultation will not be productive and terminate consultation. Any party that terminates consultation shall notify the other consulting parties and provide them the reasons for terminating in writing.

(1) If the agency official terminates consultation, the head of the agency or an Assistant Secretary or other officer with major department-wide or agency-wide responsibilities shall request that the Council comment pursuant to paragraph (c) of this section and shall notify all consulting parties of the request.

(2) If the SHPO terminates consultation, the agency official and the Council may execute a memorandum of agreement without the SHPO's involvement.

(3) If a THPO terminates consultation regarding an undertaking occurring on or affecting historic properties on its tribal lands, the Council shall comment pursuant to paragraph (c) of this section.

(4) If the Council terminates consultation, the Council shall notify the agency official, the agency's Federal preservation officer and all consulting parties of the termination and comment under paragraph (c) of this section. The Council may consult with the agency's Federal preservation officer prior to terminating consultation to seek to resolve issues concerning the undertaking and its effects on historic properties.

(b) *Comments without termination.* The Council may determine that it is appropriate to provide additional advisory comments upon an undertaking for which a memorandum of agreement will be executed. The Council shall provide them to the

agency official when it executes the memorandum of agreement.

(c) *Comments by the Council.*

(1) *Preparation.* The Council shall provide an opportunity for the agency official, all consulting parties, and the public to provide their views within the time frame for developing its comments. Upon request of the Council, the agency official shall provide additional existing information concerning the undertaking and assist the Council in arranging an onsite inspection and an opportunity for public participation.

(2) *Timing.* The Council shall transmit its comments within 45 days of receipt of a request under paragraph (a)(1) or (a)(3) of this section or § 800.8(c)(3), or termination by the Council under § 800.6(b)(1)(v) or paragraph (a)(4) of this section, unless otherwise agreed to by the agency official.

(3) *Transmittal.* The Council shall provide its comments to the head of the agency requesting comment with copies to the agency official, the agency's Federal preservation officer, all consulting parties, and others as appropriate.

(4) *Response to Council comment.* The head of the agency shall take into account the Council's comments in reaching a final decision on the undertaking. Section 110(l) of the act directs that the head of the agency shall document this decision and may not delegate his or her responsibilities pursuant to section 106. Documenting the agency head's decision shall include:

(i) Preparing a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's comments and providing it to the Council prior to approval of the undertaking;

(ii) Providing a copy of the summary to all consulting parties; and

(iii) Notifying the public and making the record available for public inspection.

**§ 800.8 Coordination With the National Environmental Policy Act.**

(a) *General principles.*

(1) *Early coordination.* Federal agencies are encouraged to coordinate compliance with section 106 and the procedures in this part with any steps taken to meet the requirements of the National Environmental Policy Act (NEPA). Agencies should consider their section 106 responsibilities as early as possible in the NEPA process, and plan

their public participation, analysis, and review in such a way that they can meet the purposes and requirements of both statutes in a timely and efficient manner. The determination of whether an undertaking is a “major Federal action significantly affecting the quality of the human environment,” and therefore requires preparation of an environmental impact statement (EIS) under NEPA, should include consideration of the undertaking's likely effects on historic properties. A finding of adverse effect on a historic property does not necessarily require an EIS under NEPA.

(2) *Consulting party roles.*

SHPO/THPOs, Indian tribes and Native Hawaiian organizations, other consulting parties, and organizations and individuals who may be concerned with the possible effects of an agency action on historic properties should be prepared to consult with agencies early in the NEPA process, when the purpose of and need for the proposed action as well as the widest possible range of alternatives are under consideration.

(3) *Inclusion of historic preservation issues.* Agency officials should ensure that preparation of an environmental assessment (EA) and finding of no significant impact (FONSI) or an EIS and record of decision (ROD) includes appropriate scoping, identification of historic properties, assessment of effects upon them, and consultation leading to resolution of any adverse effects.

(b) *Actions categorically excluded under NEPA.* If a project, activity or program is categorically excluded from NEPA review under an agency's NEPA procedures, the agency official shall determine if it still qualifies as an undertaking requiring review under section 106 pursuant to § 800.3(a). If so, the agency official shall proceed with section 106 review in accordance with the procedures in this subpart.

(c) *Use of the NEPA process for section 106 purposes.* An agency official may use the process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with section 106 in lieu of the procedures set forth in §§ 800.3 through 800.6 if the agency official has notified in advance the SHPO/THPO and the Council that it intends to do so and the following standards are met.

(1) *Standards for developing environmental documents to comply with Section 106.* During preparation of the EA or draft EIS (DEIS) the agency official shall:

(i) Identify consulting parties either pursuant to § 800.3(f) or through the NEPA scoping process with results consistent with § 800.3(f);

(ii) Identify historic properties and assess the effects of the undertaking on such properties in a manner consistent with the standards and criteria of §§ 800.4 through 800.5, provided that the scope and timing of these steps may be phased to reflect the agency official's consideration of project alternatives in the NEPA process and the effort is commensurate with the assessment of other environmental factors;

(iii) Consult regarding the effects of the undertaking on historic properties with the SHPO/THPO, Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to affected historic properties, other consulting parties, and the Council, where appropriate, during NEPA scoping, environmental analysis, and the preparation of NEPA documents;

(iv) Involve the public in accordance with the agency's published NEPA procedures; and

(v) Develop in consultation with identified consulting parties alternatives and proposed measures that might avoid, minimize or mitigate any adverse effects of the undertaking on historic properties and describe them in the EA or DEIS.

(2) *Review of environmental documents.*

(i) The agency official shall submit the EA, DEIS or EIS to the SHPO/THPO, Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to affected historic properties, and other consulting parties prior to or when making the document available for public comment. If the document being prepared is a DEIS or EIS, the agency official shall also submit it to the Council.

(ii) Prior to or within the time allowed for public comment on the document, a SHPO/THPO, an Indian tribe or Native Hawaiian organization, another consulting party or the Council may object to the agency official that preparation of the EA, DEIS or EIS has not met the standards set forth in paragraph (c)(1) of this section or that the substantive resolution of the effects on historic properties proposed in an EA, DEIS or EIS is inadequate. If the agency official receives such an objection, the agency official shall refer the matter to the Council.

(3) *Resolution of objections.* Within 30 days of the agency official's referral of an objection under paragraph (c)(2)(ii) of this section, the Council shall review the objection and notify the agency as to its opinion on the objection.

(i) If the Council agrees with the objection:

(A) The Council shall provide the agency official and, if the Council determines the issue warrants it, the head of the agency with the Council's opinion regarding the objection. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part. The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall take into account the Council's opinion in reaching a final decision on the issue of the objection.

(B) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall prepare a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's opinion, and provide it to the Council. The head of the agency may delegate his or her duties under this paragraph to the agency's senior Policy Official. If the agency official's initial decision regarding the matter that is the subject of the objection will be revised, the agency official shall proceed in accordance with the revised decision. If the final decision of the agency is to affirm the initial agency decision, once the summary of the final decision has been sent to the Council, the agency official shall continue its compliance with this section.

(ii) If the Council disagrees with the objection, the Council shall so notify the agency official, in which case the agency official shall continue its compliance with this section.

(iii) If the Council fails to respond to the objection within the 30 day period, the agency official shall continue its compliance with this section.

(4) *Approval of the undertaking.* If the agency official has found, during the preparation of an EA or EIS that the effects of an undertaking on historic properties are adverse, the agency official shall develop measures in the EA, DEIS, or EIS to avoid, minimize, or mitigate such effects in accordance with paragraph (c)(1)(v) of this section. The agency official's responsibilities under section 106 and the procedures in this

subpart shall then be satisfied when either:

- (i) a binding commitment to such proposed measures is incorporated in
  - (A) the ROD, if such measures were proposed in a DEIS or EIS; or
  - (B) an MOA drafted in compliance with § 800.6(c); or
- (ii) the Council has commented under § 800.7 and received the agency's response to such comments.

(5) *Modification of the undertaking.* If the undertaking is modified after approval of the FONSI or the ROD in a manner that changes the undertaking or alters its effects on historic properties, or if the agency official fails to ensure that the measures to avoid, minimize or mitigate adverse effects (as specified in either the FONSI or the ROD, or in the binding commitment adopted pursuant to paragraph (c)(4) of this section) are carried out, the agency official shall notify the Council and all consulting parties that supplemental environmental documents will be prepared in compliance with NEPA or that the procedures in §§ 800.3 through 800.6 will be followed as necessary.

#### **§ 800.9 Council review of section 106 compliance.**

(a) *Assessment of agency official compliance for individual undertakings.* The Council may provide to the agency official its advisory opinion regarding the substance of any finding, determination or decision or regarding the adequacy of the agency official's compliance with the procedures under this part. The Council may provide such advice at any time at the request of any individual, agency or organization or on its own initiative. The agency official shall consider the views of the Council in reaching a decision on the matter in question.

(b) *Agency foreclosure of the Council's opportunity to comment.* Where an agency official has failed to complete the requirements of section 106 in accordance with the procedures in this part prior to the approval of an undertaking, the Council's opportunity to comment may be foreclosed. The Council may review a case to determine whether a foreclosure has occurred. The Council shall notify the agency official and the agency's Federal preservation officer and allow 30 days for the agency official to provide information as to whether foreclosure has occurred. If the Council determines foreclosure has occurred, the Council shall transmit the determination to the

agency official and the head of the agency. The Council shall also make the determination available to the public and any parties known to be interested in the undertaking and its effects upon historic properties.

(c) *Intentional adverse effects by applicants.*

(1) *Agency responsibility.* Section 110(k) of the act prohibits a Federal agency from granting a loan, loan guarantee, permit, license or other assistance to an applicant who, with intent to avoid the requirements of section 106, has intentionally significantly adversely affected a historic property to which the grant would relate, or having legal power to prevent it, has allowed such significant adverse effect to occur, unless the agency, after consultation with the Council, determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. Guidance issued by the Secretary pursuant to section 110 of the act governs its implementation.

(2) *Consultation with the Council.* When an agency official determines, based on the actions of an applicant, that section 110(k) is applicable and that circumstances may justify granting the assistance, the agency official shall notify the Council and provide documentation specifying the circumstances under which the adverse effects to the historic property occurred and the degree of damage to the integrity of the property. This documentation shall include any views obtained from the applicant, SHPO/THPO, an Indian tribe if the undertaking occurs on or affects historic properties on tribal lands, and other parties known to be interested in the undertaking.

(i) Within thirty days of receiving the agency official's notification, unless otherwise agreed to by the agency official, the Council shall provide the agency official with its opinion as to whether circumstances justify granting assistance to the applicant and any possible mitigation of the adverse effects.

(ii) The agency official shall consider the Council's opinion in making a decision on whether to grant assistance to the applicant, and shall notify the Council, the SHPO/THPO, and other parties known to be interested in the undertaking prior to granting the assistance.

(3) *Compliance with Section 106.* If an agency official, after consulting with

the Council, determines to grant the assistance, the agency official shall comply with §§ 800.3 through 800.6 to take into account the effects of the undertaking on any historic properties.

(d) *Evaluation of Section 106 operations.* The Council may evaluate the operation of the section 106 process by periodic reviews of how participants have fulfilled their legal responsibilities and how effectively the outcomes reached advance the purposes of the act.

(1) *Information from participants.* Section 203 of the act authorizes the Council to obtain information from Federal agencies necessary to conduct evaluation of the section 106 process. The agency official shall make documentation of agency policies, operating procedures and actions taken to comply with section 106 available to the Council upon request. The Council may request available information and documentation from other participants in the section 106 process.

(2) *Improving the operation of section 106.* Based upon any evaluation of the section 106 process, the Council may make recommendations to participants, the heads of Federal agencies, and the Secretary of actions to improve the efficiency and effectiveness of the process. Where the Council determines that an agency official or a SHPO/THPO has failed to properly carry out the responsibilities assigned under the process in this part, the Council may participate in individual case reviews conducted under such process in addition to the SHPO/THPO for such period that it determines is necessary to improve performance or correct deficiencies. If the Council finds a pattern of failure by a Federal agency in carrying out its responsibilities under section 106, the Council may review the policies and programs of the agency related to historic preservation pursuant to section 202(a)(6) of the act and recommend methods to improve the effectiveness, coordination, and consistency of those policies and programs with section 106.

#### **§ 800.10 Special requirements for protecting National Historic Landmarks.**

(a) *Statutory requirement.* Section 110(f) of the act requires that the agency official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking. When

commenting on such undertakings, the Council shall use the process set forth in §§ 800.6 through 800.7 and give special consideration to protecting National Historic Landmarks as specified in this section.

(b) *Resolution of adverse effects.* The agency official shall request the Council to participate in any consultation to resolve adverse effects on National Historic Landmarks conducted under § 800.6.

(c) *Involvement of the Secretary.* The agency official shall notify the Secretary of any consultation involving a National Historic Landmark and invite the Secretary to participate in the consultation where there may be an adverse effect. The Council may request a report from the Secretary under section 213 of the act to assist in the consultation.

(d) *Report of outcome.* When the Council participates in consultation under this section, it shall report the outcome of the section 106 process, providing its written comments or any memoranda of agreement to which it is a signatory, to the Secretary and the head of the agency responsible for the undertaking.

#### **§ 800.11 Documentation standards.**

(a) *Adequacy of documentation.* The agency official shall ensure that a determination, finding, or agreement under the procedures in this subpart is supported by sufficient documentation to enable any reviewing parties to understand its basis. The agency official shall provide such documentation to the extent permitted by law and within available funds. When an agency official is conducting phased identification or evaluation under this subpart, the documentation standards regarding description of historic properties may be applied flexibly. If the Council, or the SHPO/THPO when the Council is not involved, determines the applicable documentation standards are not met, the Council or the SHPO/THPO, as appropriate, shall notify the agency official and specify the information needed to meet the standard. At the request of the agency official or any of the consulting parties, the Council shall review any disputes over whether documentation standards are met and provide its views to the agency official and the consulting parties.

(b) *Format.* The agency official may use documentation prepared to comply with other laws to fulfill the

requirements of the procedures in this subpart, if that documentation meets the standards of this section.

(c) *Confidentiality.*

(1) *Authority to withhold information.* Section 304 of the act provides that the head of a Federal agency or other public official receiving grant assistance pursuant to the act, after consultation with the Secretary, shall withhold from public disclosure information about the location, character, or ownership of a historic property when disclosure may cause a significant invasion of privacy; risk harm to the historic property; or impede the use of a traditional religious site by practitioners. When the head of a Federal agency or other public official has determined that information should be withheld from the public pursuant to these criteria, the Secretary, in consultation with such Federal agency head or official, shall determine who may have access to the information for the purposes of carrying out the act.

(2) *Consultation with the Council.* When the information in question has been developed in the course of an agency's compliance with this part, the Secretary shall consult with the Council in reaching determinations on the withholding and release of information. The Federal agency shall provide the Council with available information, including views of the SHPO/THPO, Indian tribes and Native Hawaiian organizations, related to the confidentiality concern. The Council shall advise the Secretary and the Federal agency within 30 days of receipt of adequate documentation.

(3) *Other authorities affecting confidentiality.* Other Federal laws and program requirements may limit public access to information concerning an undertaking and its effects on historic properties. Where applicable, those authorities shall govern public access to information developed in the section 106 process and may authorize the agency official to protect the privacy of non-governmental applicants.

(d) *Finding of no historic properties affected.* Documentation shall include:

(1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, drawings, as necessary;

(2) A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information pursuant to § 800.4(b); and

(3) The basis for determining that no historic properties are present or affected.

(e) *Finding of no adverse effect or adverse effect.* Documentation shall include:

(1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;

(2) A description of the steps taken to identify historic properties;

(3) A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;

(4) A description of the undertaking's effects on historic properties;

(5) An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and

(6) Copies or summaries of any views provided by consulting parties and the public.

(f) *Memorandum of agreement.*

When a memorandum of agreement is filed with the Council, the documentation shall include, any substantive revisions or additions to the documentation provided the Council pursuant to § 800.6(a)(1), an evaluation of any measures considered to avoid or minimize the undertaking's adverse effects and a summary of the views of consulting parties and the public.

(g) *Requests for comment without a memorandum of agreement.*

Documentation shall include:

(1) A description and evaluation of any alternatives or mitigation measures that the agency official proposes to resolve the undertaking's adverse effects;

(2) A description of any reasonable alternatives or mitigation measures that were considered but not chosen, and the reasons for their rejection;

(3) Copies or summaries of any views submitted to the agency official concerning the adverse effects of the undertaking on historic properties and alternatives to reduce or avoid those effects; and

(4) Any substantive revisions or additions to the documentation provided the Council pursuant to § 800.6(a)(1).

#### **§ 800.12 Emergency situations.**

(a) *Agency procedures.* The agency official, in consultation with the appropriate SHPOs/THPOs, affected Indian tribes and Native Hawaiian organizations, and the Council, is encouraged to develop procedures for taking historic properties into account during operations which respond to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or which respond to other immediate threats to life or property. If approved by the Council, the procedures shall govern the agency's historic preservation responsibilities during any disaster or emergency in lieu of §§ 800.3 through 800.6.

(b) *Alternatives to agency procedures.* In the event an agency official proposes an emergency undertaking as an essential and immediate response to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or another immediate threat to life or property, and the agency has not developed procedures pursuant to paragraph (a) of this section, the agency official may comply with section 106 by:

(1) Following a programmatic agreement developed pursuant to § 800.14(b) that contains specific provisions for dealing with historic properties in emergency situations; or

(2) Notifying the Council, the appropriate SHPO/THPO and any Indian tribe or Native Hawaiian organization that may attach religious and cultural significance to historic properties likely to be affected prior to the undertaking and affording them an opportunity to comment within seven days of notification. If the agency official determines that circumstances do not permit seven days for comment, the agency official shall notify the Council, the SHPO/THPO and the Indian tribe or Native Hawaiian organization and invite any comments within the time available.

(c) *Local governments responsible for section 106 compliance.* When a local government official serves as the agency official for section 106 compliance, paragraphs (a) and (b) of this section also apply to an imminent threat to public health or safety as a result of a natural disaster or emergency declared by a local government's chief executive officer or legislative body, provided that if the Council or SHPO/THPO objects to the proposed action within seven days, the agency official shall comply with §§ 800.3 through 800.6.

(d) *Applicability.* This section applies only to undertakings that will be implemented within 30 days after the disaster or emergency has been formally declared by the appropriate authority. An agency may request an extension of the period of applicability from the Council prior to the expiration of the 30 days. Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of section 106 and this part.

#### **§ 800.13 Post-review discoveries.**

(a) *Planning for subsequent discoveries.*

(1) *Using a programmatic agreement.* An agency official may develop a programmatic agreement pursuant to § 800.14(b) to govern the actions to be taken when historic properties are discovered during the implementation of an undertaking.

(2) *Using agreement documents.* When the agency official's identification efforts in accordance with § 800.4 indicate that historic properties are likely to be discovered during implementation of an undertaking and no programmatic agreement has been developed pursuant to paragraph (a)(1) of this section, the agency official shall include in any finding of no adverse effect or memorandum of agreement a process to resolve any adverse effects upon such properties. Actions in conformance with the process satisfy the agency official's responsibilities under section 106 and this part.

(b) *Discoveries without prior planning.* If historic properties are discovered or unanticipated effects on historic properties found after the agency official has completed the section 106 process without establishing a process under paragraph (a) of this section, the agency official shall make reasonable efforts to avoid, minimize or mitigate adverse effects to such properties and:

(1) If the agency official has not approved the undertaking or if construction on an approved undertaking has not commenced, consult to resolve adverse effects pursuant to § 800.6; or

(2) If the agency official, the SHPO/THPO and any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to the affected property agree that such property is of value solely for its scientific, prehistoric, historic or archeological data, the agency official may comply with the

Archeological and Historic Preservation Act instead of the procedures in this part and provide the Council, the SHPO/THPO, and the Indian tribe or Native Hawaiian organization with a report on the actions within a reasonable time after they are completed; or

(3) If the agency official has approved the undertaking and construction has commenced, determine actions that the agency official can take to resolve adverse effects, and notify the SHPO/THPO, any Indian tribe or Native Hawaiian organization that might attach religious and cultural significance to the affected property, and the Council within 48 hours of the discovery. The notification shall describe the agency official's assessment of National Register eligibility of the property and proposed actions to resolve the adverse effects. The SHPO/THPO, the Indian tribe or Native Hawaiian organization and the Council shall respond within 48 hours of the notification. The agency official shall take into account their recommendations regarding National Register eligibility and proposed actions, and then carry out appropriate actions. The agency official shall provide the SHPO/THPO, the Indian tribe or Native Hawaiian organization and the Council a report of the actions when they are completed.

(c) *Eligibility of properties.* The agency official, in consultation with the SHPO/THPO, may assume a newly-discovered property to be eligible for the National Register for purposes of section 106. The agency official shall specify the National Register criteria used to assume the property's eligibility so that information can be used in the resolution of adverse effects.

(d) *Discoveries on tribal lands.* If historic properties are discovered on tribal lands, or there are unanticipated effects on historic properties found on tribal lands, after the agency official has completed the section 106 process without establishing a process under paragraph (a) of this section and construction has commenced, the agency official shall comply with applicable tribal regulations and procedures and obtain the concurrence of the Indian tribe on the proposed action.

#### **Subpart C-Program Alternatives**

#### **§ 800.14 Federal agency program alternatives.**

(a) *Alternate procedures.* An agency official may develop procedures to implement section 106 and substitute them for all or part of subpart B of this part if they are consistent with the Council's regulations pursuant to section 110(a)(2)(E) of the act.

(1) *Development of procedures.* The agency official shall consult with the Council, the National Conference of State Historic Preservation Officers or individual SHPO/THPOs, as appropriate, and Indian tribes and Native Hawaiian organizations, as specified in paragraph (f) of this section, in the development of alternate procedures, publish notice of the availability of proposed alternate procedures in the Federal Register and take other appropriate steps to seek public input during the development of alternate procedures.

(2) *Council review.* The agency official shall submit the proposed alternate procedures to the Council for a 60-day review period. If the Council finds the procedures to be consistent with this part, it shall notify the agency official and the agency official may adopt them as final alternate procedures.

(3) *Notice.* The agency official shall notify the parties with which it has consulted and publish notice of final alternate procedures in the Federal Register.

(4) *Legal effect.* Alternate procedures adopted pursuant to this subpart substitute for the Council's regulations for the purposes of the agency's compliance with section 106, except that where an Indian tribe has entered into an agreement with the Council to substitute tribal historic preservation regulations for the Council's regulations under section 101(d)(5) of the act, the agency shall follow those regulations in lieu of the agency's procedures regarding undertakings on tribal lands. Prior to the Council entering into such agreements, the Council will provide Federal agencies notice and opportunity to comment on the proposed substitute tribal regulations.

(b) *Programmatic agreements.* The Council and the agency official may negotiate a programmatic agreement to govern the implementation of a particular program or the resolution of adverse effects from certain complex project situations or multiple undertakings.

(1) *Use of programmatic agreements.* A programmatic agreement may be used:

(i) When effects on historic properties are similar and repetitive or are multi-State or regional in scope;

(ii) When effects on historic properties cannot be fully determined prior to approval of an undertaking;

(iii) When nonfederal parties are delegated major decisionmaking responsibilities;

(iv) Where routine management activities are undertaken at Federal installations, facilities, or other land-management units; or

(v) Where other circumstances warrant a departure from the normal section 106 process.

(2) *Developing programmatic agreements for agency programs.*

(i) The consultation shall involve, as appropriate, SHPO/THPOs, the National Conference of State Historic Preservation Officers (NCSHPO), Indian tribes and Native Hawaiian organizations, other Federal agencies, and members of the public. If the programmatic agreement has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the agency official shall also follow paragraph (f) of this section.

(ii) *Public Participation.* The agency official shall arrange for public participation appropriate to the subject matter and the scope of the program and in accordance with subpart A of this part. The agency official shall consider the nature of the program and its likely effects on historic properties and take steps to involve the individuals, organizations and entities likely to be interested.

(iii) *Effect.* The programmatic agreement shall take effect when executed by the Council, the agency official and the appropriate SHPOs/THPOs when the programmatic agreement concerns a specific region or the president of NCSHPO when NCSHPO has participated in the consultation. A programmatic agreement shall take effect on tribal lands only when the THPO, Indian tribe or a designated representative of the tribe is a signatory to the agreement. Compliance with the procedures established by an approved programmatic agreement satisfies the agency's section 106 responsibilities for all individual undertakings of the program covered by the agreement until

it expires or is terminated by the agency, the president of NCSHPO when a signatory, or the Council. Termination by an individual SHPO/THPO shall only terminate the application of a regional programmatic agreement within the jurisdiction of the SHPO/THPO. If a THPO assumes the responsibilities of a SHPO pursuant to section 101(d)(2) of the act and the SHPO is signatory to programmatic agreement, the THPO assumes the role of a signatory, including the right to terminate a regional programmatic agreement on lands under the jurisdiction of the tribe.

(iv) *Notice.* The agency official shall notify the parties with which it has consulted that a programmatic agreement has been executed under paragraph (b) of this section, provide appropriate public notice before it takes effect, and make any internal agency procedures implementing the agreement readily available to the Council, SHPO/THPOs, and the public.

(v) If the Council determines that the terms of a programmatic agreement are not being carried out, or if such an agreement is terminated, the agency official shall comply with subpart B of this part with regard to individual undertakings of the program covered by the agreement.

(3) *Developing programmatic agreements for complex or multiple undertakings.* Consultation to develop a programmatic agreement for dealing with the potential adverse effects of complex projects or multiple undertakings shall follow § 800.6. If consultation pertains to an activity involving multiple undertakings and the parties fail to reach agreement, then the agency official shall comply with the provisions of subpart B of this part for each individual undertaking.

(4) *Prototype programmatic agreements.* The Council may designate an agreement document as a prototype programmatic agreement that may be used for the same type of program or undertaking in more than one case or area. When an agency official uses such a prototype programmatic agreement, the agency official may develop and execute the agreement with the appropriate SHPO/THPO and the agreement shall become final without need for Council participation in consultation or Council signature.

(c) *Exempted categories.*

(1) *Criteria for establishing.* The Council or an agency official may propose a program or category of undertakings that may be exempted

from review under the provisions of subpart B of this part, if the program or category meets the following criteria:

(i) The actions within the program or category would otherwise qualify as "undertakings" as defined in § 800.16;

(ii) The potential effects of the undertakings within the program or category upon historic properties are foreseeable and likely to be minimal or not adverse; and

(iii) Exemption of the program or category is consistent with the purposes of the act.

(2) *Public participation.* The proponent of the exemption shall arrange for public participation appropriate to the subject matter and the scope of the exemption and in accordance with the standards in subpart A of this part. The proponent of the exemption shall consider the nature of the exemption and its likely effects on historic properties and take steps to involve individuals, organizations and entities likely to be interested.

(3) *Consultation with SHPOs/THPOs.* The proponent of the exemption shall notify and consider the views of the SHPOs/THPOs on the exemption.

(4) *Consultation with Indian tribes and Native Hawaiian organizations.* If the exempted program or category of undertakings has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

(5) *Council review of proposed exemptions.* The Council shall review an exemption proposal that is supported by documentation describing the program or category for which the exemption is sought, demonstrating that the criteria of paragraph (c)(1) of this section have been met, describing the methods used to seek the views of the public, and summarizing any views submitted by the SHPO/THPOs, the public, and any others consulted. Unless it requests further information, the Council shall approve or reject the proposed exemption within 30 days of receipt, and thereafter notify the relevant agency official and SHPO/THPOs of the decision. The decision shall be based on the consistency of the exemption with the purposes of the act, taking into consideration the magnitude of the exempted undertaking or program and the likelihood of impairment of historic

properties in accordance with section 214 of the act.

(6) *Legal consequences.* Any undertaking that falls within an approved exempted program or category shall require no further review pursuant to subpart B of this part, unless the agency official or the Council determines that there are circumstances under which the normally excluded undertaking should be reviewed under subpart B of this part.

(7) *Termination.* The Council may terminate an exemption at the request of the agency official or when the Council determines that the exemption no longer meets the criteria of paragraph (c)(1) of this section. The Council shall notify the agency official 30 days before termination becomes effective.

(8) *Notice.* The proponent of the exemption shall publish notice of any approved exemption in the Federal Register.

(d) *Standard treatments.*

(1) *Establishment.* The Council, on its own initiative or at the request of another party, may establish standard methods for the treatment of a category of historic properties, a category of undertakings, or a category of effects on historic properties to assist Federal agencies in satisfying the requirements of subpart B of this part. The Council shall publish notice of standard treatments in the Federal Register.

(2) *Public participation.* The Council shall arrange for public participation appropriate to the subject matter and the scope of the standard treatment and consistent with subpart A of this part. The Council shall consider the nature of the standard treatment and its likely effects on historic properties and the individuals, organizations and entities likely to be interested. Where an agency official has proposed a standard treatment, the Council may request the agency official to arrange for public involvement.

(3) *Consultation with SHPOs/THPOs.* The Council shall notify and consider the views of SHPOs/THPOs on the proposed standard treatment.

(4) *Consultation with Indian tribes and Native Hawaiian organizations.* If the proposed standard treatment has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

(5) *Termination.* The Council may terminate a standard treatment by publication of a notice in the Federal Register 30 days before the termination takes effect.

(e) *Program comments.* An agency official may request the Council to comment on a category of undertakings in lieu of conducting individual reviews under §§ 800.4 through 800.6. The Council may provide program comments at its own initiative.

(1) *Agency request.* The agency official shall identify the category of undertakings, specify the likely effects on historic properties, specify the steps the agency official will take to ensure that the effects are taken into account, identify the time period for which the comment is requested and summarize any views submitted by the public.

(2) *Public participation.* The agency official shall arrange for public participation appropriate to the subject matter and the scope of the category and in accordance with the standards in subpart A of this part. The agency official shall consider the nature of the undertakings and their likely effects on historic properties and the individuals, organizations and entities likely to be interested.

(3) *Consultation with SHPOs/THPOs.* The Council shall notify and consider the views of SHPOs/THPOs on the proposed program comment.

(4) *Consultation with Indian tribes and Native Hawaiian organizations.* If the program comment has the potential to affect historic properties on tribal lands or historic properties of religious and cultural significance to an Indian tribe or Native Hawaiian organization, the Council shall follow the requirements for the agency official set forth in paragraph (f) of this section.

(5) *Council action.* Unless the Council requests additional documentation, notifies the agency official that it will decline to comment, or obtains the consent of the agency official to extend the period for providing comment, the Council shall comment to the agency official within 45 days of the request.

(i) If the Council comments, the agency official shall take into account the comments of the Council in carrying out the undertakings within the category and publish notice in the Federal Register of the Council's comments and steps the agency will take to ensure that effects to historic properties are taken into account.

(ii) If the Council declines to comment, the agency official shall continue to comply with the requirements of §§ 800.3 through 800.6 for the individual undertakings.

(6) *Withdrawal of comment.* If the Council determines that the consideration of historic properties is not being carried out in a manner consistent with the program comment, the Council may withdraw the comment and the agency official shall comply with the requirements of §§ 800.3 through 800.6 for the individual undertakings.

(f) *Consultation with Indian tribes and Native Hawaiian organizations when developing program alternatives.* Whenever an agency official proposes a program alternative pursuant to paragraphs (a) through (e) of this section, the agency official shall ensure that development of the program alternative includes appropriate government-to-government consultation with affected Indian tribes and consultation with affected Native Hawaiian organizations.

(1) *Identifying affected Indian tribes and Native Hawaiian organizations.* If any undertaking covered by a proposed program alternative has the potential to affect historic properties on tribal lands, the agency official shall identify and consult with the Indian tribes having jurisdiction over such lands. If a proposed program alternative has the potential to affect historic properties of religious and cultural significance to an Indian tribe or a Native Hawaiian organization which are located off tribal lands, the agency official shall identify those Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to such properties and consult with them. When a proposed program alternative has nationwide applicability, the agency official shall identify an appropriate government to government consultation with Indian tribes and consult with Native Hawaiian organizations in accordance with existing Executive orders, Presidential memoranda and applicable provisions of law.

(2) *Results of consultation.* The agency official shall provide summaries of the views, along with copies of any written comments, provided by affected Indian tribes and Native Hawaiian organizations to the Council as part of the documentation for the proposed program alternative. The agency official and the Council shall take those views

into account in reaching a final decision on the proposed program alternative.

#### **§ 800.15 Tribal, State, and local program alternatives. (Reserved)**

#### **§ 800.16 Definitions.**

(a) *Act* means the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470w-6.

(b) *Agency* means agency as defined in 5 U.S.C. 551.

(c) *Approval of the expenditure of funds* means any final agency decision authorizing or permitting the expenditure of Federal funds or financial assistance on an undertaking, including any agency decision that may be subject to an administrative appeal.

(d) *Area of potential effects* means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

(e) *Comment* means the findings and recommendations of the Council formally provided in writing to the head of a Federal agency under section 106.

(f) *Consultation* means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process. The Secretary's "Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act" provide further guidance on consultation.

(g) *Council* means the Advisory Council on Historic Preservation or a Council member or employee designated to act for the Council.

(h) *Day or days* means calendar days.

(i) *Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register.

(j) *Foreclosure* means an action taken by an agency official that effectively precludes the Council from providing comments which the agency official can meaningfully consider prior to the approval of the undertaking.

(k) *Head of the agency* means the chief official of the Federal agency responsible for all aspects of the agency's actions. If a State, local or tribal government has assumed or has

been delegated responsibility for section 106 compliance, the head of that unit of government shall be considered the head of the agency.

(l)(1) *Historic property* means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

(2) The term *eligible for inclusion in the National Register* includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria.

(m) *Indian tribe* means an Indian tribe, band, nation, or other organized group or community, including a native village, regional corporation or village corporation, as those terms are defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(n) *Local government* means a city, county, parish, township, municipality, borough, or other general purpose political subdivision of a State.

(o) *Memorandum of agreement* means the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

(p) *National Historic Landmark* means a historic property that the Secretary of the Interior has designated a National Historic Landmark.

(q) *National Register* means the National Register of Historic Places maintained by the Secretary of the Interior.

(r) *National Register criteria* means the criteria established by the Secretary of the Interior for use in evaluating the eligibility of properties for the National Register (36 CFR part 60).

(s)(1) *Native Hawaiian organization* means any organization which serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of



historic preservation that are significant to Native Hawaiians.

(2) *Native Hawaiian* means any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the State of Hawaii.

(t) *Programmatic agreement* means a document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations in accordance with § 800.14(b).

(u) *Secretary* means the Secretary of the Interior acting through the Director of the National Park Service except where otherwise specified.

(v) *State Historic Preservation Officer (SHPO)* means the official appointed or designated pursuant to section 101(b)(1) of the act to administer the State historic preservation program or a representative designated to act for the State historic preservation officer.

(w) *Tribal Historic Preservation Officer (THPO)* means the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of section 106 compliance on tribal lands in accordance with section 101(d)(2) of the act.

(x) *Tribal lands* means all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities.

(y) *Undertaking* means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.

(z) *Senior policy official* means the senior policy level official designated by the head of the agency pursuant to section 3(e) of Executive Order 13287.

#### **Appendix A to Part 800 -- Criteria for Council Involvement in Reviewing Individual section 106 Cases**

(a) *Introduction.* This appendix sets forth the criteria that will be used by the Council to determine whether to enter an individual section 106 review that it normally would not be involved in.

(b) *General policy.* The Council may choose to exercise its authorities under

the section 106 regulations to participate in an individual project pursuant to the following criteria. However, the Council will not always elect to participate even though one or more of the criteria may be met.

(c) *Specific criteria.* The Council is likely to enter the section 106 process at the steps specified in the regulations in this part when an undertaking:

(1) *Has substantial impacts on important historic properties.* This may include adverse effects on properties that possess a national level of significance or on properties that are of unusual or noteworthy importance or are a rare property type; or adverse effects to large numbers of historic properties, such as impacts to multiple properties within a historic district.

(2) *Presents important questions of policy or interpretation.* This may include questions about how the Council's regulations are being applied or interpreted, including possible foreclosure or anticipatory demolition situations; situations where the outcome will set a precedent affecting Council policies or program goals; or the development of programmatic agreements that alter the way the section 106 process is applied to a group or type of undertakings.

(3) *Has the potential for presenting procedural problems.* This may include cases with substantial public controversy that is related to historic preservation issues; with disputes among or about consulting parties which the Council's involvement could help resolve; that are involved or likely to be involved in litigation on the basis of section 106; or carried out by a Federal agency, in a State or locality, or on tribal lands where the Council has previously identified problems with section 106 compliance pursuant to § 800.9(d)(2).

(4) *Presents issues of concern to Indian tribes or Native Hawaiian organizations.* This may include cases where there have been concerns raised about the identification of, evaluation of or assessment of effects on historic properties to which an Indian tribe or Native Hawaiian organization attaches religious and cultural significance; where an Indian tribe or Native Hawaiian organization has requested Council involvement to assist in the resolution of adverse effects; or where there are questions relating to policy, interpretation or precedent under section 106 or its relation to other

authorities, such as the Native American Graves Protection and Repatriation Act.

## **APPENDIX C**

Federal Regulation 36 CFR 61, Appendix A, “Professional Qualifications”

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## PROFESSIONAL QUALIFICATION STANDARDS - 1983

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In the September 29, 1983, issue of the Federal Register, the National Park Service published the following Professional Qualification Standards as part of the larger Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. These Professional Qualification Standards are in effect currently. Since 1983, the National Park Service has not issued any revisions for effect, although the National Park Service is in the process of drafting such revisions.

The following requirements are those used by the National Park Service, and have been previously published in the Code of Federal Regulations, 36 CFR Part 61. The qualifications define minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved. In the following definitions, a year of full-time professional experience need not consist of a continuous year of full-time work but may be made up of discontinuous periods of full-time or part-time work adding up to the equivalent of a year of full-time experience.

### History

The minimum professional qualifications in history are a graduate degree in history or closely related field; or a bachelor's degree in history or closely related field plus one of the following:

1. At least two years of full-time experience in research, writing, teaching, interpretation, or other demonstrable professional activity with an academic institution, historical organization or agency, museum, or other professional institution; or
2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of history.

### Archeology

The minimum professional qualifications in archeology are a graduate degree in archeology, anthropology, or closely related field plus:

1. At least one year of full-time professional experience or equivalent specialized training in archeological research,

administration or management;

2. At least four months of supervised field and analytic experience in general North American archeology; and

3. Demonstrated ability to carry research to completion.

In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period.

A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period.

### **Architectural History**

The minimum professional qualifications in architectural history are a graduate degree in architectural history, art history, historic preservation, or closely related field, with coursework in American architectural history; or a bachelor's degree in architectural history, art history, historic preservation or closely related field plus one of the following:

1. At least two years of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or

2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

### **Architecture**

The minimum professional qualifications in architecture are a professional degree in architecture plus at least two years of full-time experience in architecture; or a State license to practice architecture.

### **Historic Architecture**

The minimum professional qualifications in historic architecture are a professional degree in architecture or a State license to practice architecture, plus one of the following:

1. At least one year of graduate study in architectural

preservation, American architectural history, preservation planning, or closely related field; or

2. At least one year of full-time professional experience on historic preservation projects.

Such graduate study or experience shall include detailed investigations of historic structures, preparation of historic structures research reports, and preparation of plans and specifications for preservation projects.



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## **APPENDIX D**

Advisory Council on Historic Preservation Program Comment for  
Capehart and Wherry Era Army Family Housing and Associated  
Structures and Landscape Features (1949–1962)



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## Notices

Federal Register

Vol. 67, No. 110

Friday, June 7, 2002

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

### ADVISORY COUNCIL ON HISTORIC PRESERVATION

#### Program Comment for Capehart and Wherry Era Army Family Housing and Associated Structures and Landscape Features (1949–1962)

**AGENCY:** Advisory Council on Historic Preservation.

**ACTION:** Notice of approval of Program Comment on Army Capehart and Wherry Era Housing.

**SUMMARY:** On May 31, 2002, the Advisory Council on Historic Preservation approved a Program Comment that facilitates the Army's compliance with the National Historic Preservation Act with regard to its management of its inventory of Capehart and Wherry Era family housing and associated structures and landscape features.

**DATES:** The Program Comment goes into effect on June 7, 2002.

**FOR FURTHER INFORMATION CONTACT:** Address all comments concerning this Program Comment to David Berwick, Army Affairs Coordinator, Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW., Suite 809, Washington, DC 20004. Fax (202) 606–8672. [dberwick@achp.gov](mailto:dberwick@achp.gov).

**SUPPLEMENTARY INFORMATION:** Section 106 of the National Historic Preservation Act, 16 U.S.C. 470f, requires Federal agencies to consider the effects of this undertakings on historic properties and provide the Advisory Council on Historic Preservation (“Council”) a reasonable opportunity to comment with regard to such undertakings. The Council has issued the regulations that set forth the process through which Federal agencies comply with these duties. Those regulations are codified under 36 CFR part 800 (“Section 106 regulations”).

The section 106 regulations, under 36 CFR 800.14(e), provide that an agency

may request the Council for a “Program Comment” allowing it to comply with section 106 for a category of undertakings in lieu of conducting a separate review for each individual undertaking under the regular process.

#### I. Background

According to the requirements for obtaining a Program Comment, the Army formally requested the Council comment on Capehart and Wherry Era Army family housing and associated structures and landscape features in lieu of requiring separate reviews under sections 800.4 through 800.6 of the section 106 regulations for each individual undertaking. The Army identified the category of undertakings as maintenance and repair; rehabilitation; layaway and mothballing; renovation; demolition; demolition and replacement; and transfer, sale or lease out of Federal control, affecting Army family housing built between 1949 and 1962 and termed “Capehart and Wherry.” The Army also specified the likely effects that these management actions would have on historic properties and the steps the Army would take to ensure that the effects are taken into account. The Army included in their request to the Council the public comments that it received from a 30-day public comment opportunity provided through an earlier notice (67 FR 2644, January 18, 2002).

The Council subsequently published a notice of intent to issue the Program Comment (67 FR 12966, March 20, 2002) and notified State Historic Preservation Officers (“SHPOs”), the National Conference of State Historic Preservation Officers (“NCSHPO”), Tribal Historic Preservation Officers (“THPOs”), and the National Association of Tribal Historic Preservation Officers, and requested their views on the Army's proposed Program Comment.

During its May 31, 2002 business meeting, the Council membership (with the Department of Defense recusing itself) voted unanimously to approve and issue the Program Comment found at the end of this notice. The vote was 19 in favor of approving and issuing the Program Comment and no votes against, with the Department of Defense abstaining.

Neither the Council nor the Army have engaged in the particularized consultation with Indian Tribes and

Native Hawaiian organizations, pursuant to 36 CFR 800.14(e)(4), since such consultation does not seem to be warranted. All Army actions considered under this Program Comment will be undertaken on Army property. The Program Comment will not have consequences for historic properties of religious and cultural significance, regardless of location, to any Indian tribe or Native Hawaiian organization since any Capehart and Wherry actions which would affect these types of properties are specifically excluded under the Program Comment.

#### II. Response to Public Comments

At the end of the 30-day comment period, only four comments had been filed: NCSHPO, the New Jersey SHPO, the National Trust for Historic Preservation (“Trust”), and the Department of Housing and Urban Development. The following Council responses reflect significant comments and the manner in which the Council has modified the Program Comment to respond to these public comments. The public comments are printed in bold typeface, while the Council response follows immediately in normal typeface:

**The Army's proposal will, in effect, exempt one property type from any and all future compliance with section 106.** The Program Comment process is not an exemption. The Program Comment reflects what the Army must follow to be in compliance with section 106.

**The period of significance for Capehart and Wherry Housing is less than fifty years old. For most properties the passage of time is considered to be essential in order to gain scholarly perspective.** While the National Register criteria allow for properties of exceptional significance to be eligible for the Register prior to this 50-year benchmark, the Council believes that Capehart Wherry properties would never meet the significance test for this category of exceptional significance. Since these properties are now on the cusp of meeting the 50-year benchmark, we believe it is appropriate for the Army to take management action, which would reduce their administrative cost of managing these resources, to comply with Section 106 in advance of meeting the 50-year threshold. The Council supports proactive agency planning in order to reduce administrative costs and burdens.

**Conclusions reached about the non-significance of properties that are less than fifty years old are inherently suspect.** The Council's notice of intent states that "The Army considers its inventory of Capehart and Wherry properties, including any associated structures and landscape features, to be eligible for the National Register of Historic Places for the purposes of section 106 compliance."

**The Army's plans should receive detailed consideration, possibly by the Council as a whole.** The Council's Federal Agency Program Committee reviewed the Program Comment and provided recommendations to the Council membership for its deliberation and vote at the May 31, 2002, business meeting. As stated above, at that meeting, the Council membership discussed the Program Comment and unanimously voted to approve and issue it.

SHPOs from states with significant inventories of Capehart Wherry era housing should be invited to participate in the development of treatment plans. The Council and the Army provided all SHPOs and NCSHPO ample opportunity to comment on the proposed treatment plans detailed in the Program Comment. That resulted in the receipt of comments from only one SHPO (New Jersey) and NCSHPO. Both comments were closely considered in the final drafting of the Program Comment. The consultation met the requirements of the section 106 regulations for the issuance of a Program Comment.

**While documentation of the affected resources may be one effective treatment, preservation of significant examples needs to be considered also.** The Program Comment has been modified to allow for identification and preservation of properties of particular importance for continued use as military housing within the funding and mission constraints of the Army.

**The Advisory Council needs more information on the resource type affected, such as information about representative individual examples or types and information about groups of resources as they exist today on military installations.** The revised and expanded context study will provide more detailed information on individual examples of the types of Capehart and Wherry housing which exist at each installation. This information will be used by the Army to prepare the design guidelines that will be used by installations in future planning efforts that affect Capehart and Wherry communities.

**The Council should insure that Capehart Wherry communities are**

**evaluated within a comprehensive context, including evaluating significance within the context of local and state significance, Criteria for Evaluation B (related to individuals of historic importance) and C (work of a master). Because the housing program was not uniform across all installations, a post-by-post evaluation needs to be made for groups of resources in order to evaluate their significance.** The revised and expanded context study will specifically address the importance of historically important builders, developers and architects that may have been associated with design and construction of Capehart and Wherry Era housing developments at specific Army installations.

**The potential for secondary effects on National Register listed or eligible property that may be adjacent to Capehart Wherry era housing is not consider in this proposal, and archaeology is not considered either. Ground disturbing activities on Army installations should be evaluated on an individual basis.** The Program Comment specifically states that it does not apply to the following properties historic properties: (a) Archaeological sites; (b) properties of traditional religious and cultural significance to federally recognized Indian tribes or Native Hawaiian organizations; and/or (c) historic properties other than Army Capehart and Wherry Era housing, associated structures and landscape features. This is found in section III, Applicability.

**The Council's regulations emphasize public participation. We do not believe the spirit of the Council's regulations have been addressed by one Federal Register notice.** We disagree. The Council's regulations allow agencies to use their own public review processes, including NEPA, in complying with the public involvement requirements under the Council's regulations. The general public had an opportunity to respond to comments under the Army's NEPA document and again through the Council's notice of intent process. There were no general public comments received by either the Army or the Council during these public review processes. We believe that the non-response by the general public reflects its lack of interest in these types of properties, especially as they relate to military installations.

**Would the program comment affect the Army's responsibilities under section 110 of the National Historic preservation Act?** Section 110(a)(2)(E) requires agency's procedures for compliance with Section 106 to be consistent with the Council's

regulations and provide a process for identification, evaluation, and consultation regarding the means by which adverse effects are considered. This Program Comment was issued and approved by the Council pursuant to the Council's section 106 regulations.

**The Army's proposal includes no commitment that any of these useful documents (i.e., context study, design guidelines) will actually be used or applied by the Army.** The intent of the Program Comment is that the Army apply these guidelines consistently across installations where Capehart and Wherry units will be retained by the Army. If the Council believes that the Army is not using the guidelines as intended, the Council may withdraw the Program Comment in its entirety.

**There (is no) proposal by the Army to commit to the preservation of Capehart Wherry properties.** The Program Comment has been modified to allow for identification and preservation of properties of particular importance for continued use as military housing within the funding and mission constraints of the Army.

**The Army should not be allowed to proceed under the program comments demolition prior to the completion of the mitigation actions.** While the Army is allowed to proceed with action which affect Capehart and Wherry properties prior to completion of mitigation, the Program Comment prevents them from completing management action which may preclude the eventual successful completion of the steps outlined in the Program Comment.

**Rather than leaving to chance the question of which of these properties may survive, if any, the Army should identify a limited selection of these resources in advance, based on criteria of significance, and should place an explicit priority on actually preserving them.** The Program Comment has been modified to establish a process for the identification of Capehart and Wherry Era properties of particular importance and to allow the preservation of such properties for continued use as military housing within the funding and mission constraints of the Army.

**The Army's proposal does not contemplate any distinction whatsoever in the treatment of properties that have special architectural or other significance.** The revised and expanded context study will include identification of significant architects, builders/contractors/developers and subcontractors. Upon completion, the context study will be reviewed for Capehart and Wherry Era properties of particular importance. Properties identified in this review process may

have additional historical documentation completed for them, as needed, they will be taken into consideration in producing the video documentation and they will be considered for preservation through continued use as Army family housing.

### III. Text of the Program Comment

The full text of the Program Comment is produced below:

Program Comment for Capehart and Wherry Era Army Family Housing and Associated Structures and Landscape Features (1949–1962)

#### I. Introduction

This Program Comment, adopted pursuant to 36 CFR 800.14(e), demonstrates Department of the Army (Army) compliance with its responsibilities under section 106 of the National Historic Preservation Act with regard to the following management actions for Capehart and Wherry Era Army family housing, associated structures and landscape features: maintenance and repair; rehabilitation; layaway and mothballing; renovation; demolition; and replacement; and transfer, sale of lease out of Federal control.

Structures associated with this family housing include detached garages, carports and storage buildings, and the landscape features (including but not limited to the overall design and layout of the Capeharts and Wherry Era communities, including road patterns, plantings and landscaping, open spaces, playgrounds, parking areas, signage, site furnishings, views into and out of the community, lighting, sidewalks, setbacks and all other associated cultural landscape features). A small percentage of buildings and structures constructed during this period were not constructed with funds provided through the Capehart and Wherry funding programs, but are similar in all other respects, and are therefore included in this Program Comment.

#### II. Treatment of Capehart and Wherry Properties

##### a. Consideration of Eligibility

The Army conducted a historic context of its Capehart and Wherry properties in a report entitled *For Want of a Home: A Historic Context for Wherry and Capehart Military Family Housing*. On May 22, 2001, the Army sponsored a symposium on Capehart and Wherry Era housing management as it relates to historic preservation. The symposium was attended by preservation experts, including the National Trust for Historic Preservation

(Trust), the National Conference of State Historic Preservation Officers (NCSHPO), the Advisory Council on Historic Preservation (Council), and nationally recognized experts in the field of historic preservation from academia and industry. As recommended by the symposium participants, the treatment section, below, presents the programmatic approach for complying with section 106. The Army considers its inventory of Capehart and Wherry Era properties, including any associated structures and landscape features, to be eligible for the National Register of Historic Places for the purposes of section 106 compliance.

##### b. Treatment

The Army requested a Program Comment as an Army-wide section 106 compliance action related to management of Capehart and Wherry Era housing, associated structures and landscape features. This programmatic approach will facilitate management actions for maintenance and repair; rehabilitation; layaway and mothballing; renovation; demolition; and replacement; and transfer, sale or lease of Capehart and Wherry Era housing, associated structures and landscape features out of Federal control. Such actions present a potential for adverse effects to these historic properties.

The following treatment is based on the measures proposed by the Army in their request for Program Comment, the comments received from the Council's "notice of intent to issue program comments" as published in the **Federal Register** (67 FR 12956; March 20, 2002) and follow up discussions between the Council, the Army, NCSHPO, and the Trust.

(1) *Context Study*: The Army will expand and revise the existing historic context, *For Want of a Home: A Historic Context for Wherry and Capehart Military Family Housing*. Consistent with issues identified during the symposium on Capehart and Wherry Era Housing held by the Army in May 2001, and subsequent public review, the Army will expand the historic context to address the following important issues:

- (1) Explore changing Army family demographics following the end of the World War II and their impact on housing needs and responsive programs;
- (ii) Focus on post-World War II suburbanization, housing trends and affordable housing programs in the civilian sector;
- (iii) Identify those Capehart and Wherry properties that may be of particular importance due to their association with historically important builders, developers and architects;

(iv) Discuss associated structures, and landscape features, in addition to addressing the housing units; and

(v) Describe the inventory of Capehart and Wherry Era housing, providing information on the various types of buildings and architectural styles and the quantity of each.

(2) *Context Study Review*: The Army review the results of the expanded and revised context study and determine whether any of those properties identified under section II(b)(1)(iii) are of particular importance. The Army will notify the Council of the results of this review, and the Council will forward the results to the NCSHPO, and the Trust.

(3) *Design Guidelines*: The Army's scoping process identified landscape features as an important attribute of Capehart and Wherry Era land-use planning and development. Using information developed in the expanded and revised context study, the Army will develop *Capehart and Wherry Era Neighborhood Design Guidelines* that consider the importance of Capehart and Wherry Era family housing, associated structures and landscape features. The Army will:

- (i) Provide the design guidelines to the Council for review;
- (ii) Distribute the design guidelines to those facilities and installations that have been identified in the expanded and revised context study as having Capehart and Wherry Era properties; and
- (iii) Consider the design guidelines in planning actions that affect the Army's Capehart and Wherry Era housing, associated structures and landscape features.

(4) *Properties of Particular Importance*: For Capehart and Wherry properties that have been determined to have particular importance under section II(b)(2), above, the Army will:

- (i) Consider the need to conduct additional historical documentation for these properties;
- (ii) Focus video documentation efforts on such properties; and
- (iii) Within funding and mission constraints, consider the preservation of these properties through continued use as military housing.

(5) *Tax Credits*: The Army will advise developers involved in the Army's privatization initiatives that Capehart and Wherry Era properties may be eligible for historic preservation tax credits.

(6) *Video Documentation*: The Army will document and record Capehart and Wherry Era housing, associated structures and landscape features

through preparation of a video. The video will:

(i) Document and record representative structural types and landscape features at three installations, including appropriate examples of properties of particular importance;

(ii) Explain the relationship of this housing construction program to significant issues and topics researched for the expanded and revised context study;

(iii) Be distributed for educational purposes, and archived by the Army; and

(iv) Be provided, in digital format, to the Council, the Trust, and the NCSHPO.

(7) *Schedule for Completion:*

(i) Within 12 months from Council approval of the Program Comment, the Army shall complete:

(A) The expanded and revised context study for Capehart and Wherry Era housing as described in section II(b)(1), above;

(B) Review of the context study for properties of particular importance as described in II(b)(2), above; and

(c) The design guidelines as described in section II(b)(3), above; exclusive of section II(b)(3)(iii).

(ii) Within 24 months from Council approval of the Program Comment, the Army shall complete:

(A) Its consideration of properties of particular importance as described in section II(b)(4), above; and

(B) The video documentation of Capehart and Wherry Era housing as described in Section II(b)(6), above.

(8) *Availability:* Upon their completion, the Army will make final products available to installation commanders.

### III. Applicability

This Program Comment does not apply to the following properties that are listed, or eligible for listing, on the National Register of Historic Places:

(a) Archeological sites;

(b) Properties of traditional religious and cultural significance to federally recognized Indian tribes or Native Hawaiian organizations; and/or

(c) Historic properties other than Army Capehart and Wherry Era housing, associated structures and landscape features.

### IV. Effect of Program Comment

By the following this Program Comment, the Army meets its responsibilities for compliance under section 106 regarding management of its entire inventory of Capehart and Wherry Era housing (1949–1962), associated structures and landscape features.

Accordingly, installations are no longer required to follow the case-by-case section 106 review process for each individual management action affecting Capehart and Wherry Era housing, associated structures and landscape features.

The Army may carry out management actions prior to the completion of the treatment steps outlined above, so long as such management actions do not preclude the eventual successful completion of these steps.

This Program Comment will remain in effect until such time as the Department of the Army determines that such comments are no longer needed, and notifies the Council, in writing, or the Council withdraws the Program Comment in accordance with 36 CFR 800.14(e)(6). Following such withdrawal, the Army would be required to comply with the requirements of 36 CFR 800.3 through 800.7 for each individual management action.

The Council approved this Program Comment on May 31, 2002.

[Signed by Chairman John L. Nau, III on May 31, 2002]

**Authority:** 36 CFR 800.14(e).

Dated: June 4, 2002.

**John M. Fowler,**

*Executive Director.*

[FR Doc. 02–14389 Filed 6–6–02; 8:45 am]

**BILLING CODE 4310–10–M**

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## DEPARTMENT OF AGRICULTURE

### Agricultural Research Service

#### Notice of Intent To Grant Exclusive License

**AGENCY:** Agricultural Research Service, USDA.

**ACTION:** Notice of intent.

**SUMMARY:** Notice is hereby given that the U.S. Department of Agriculture, Agricultural Research Service, intends to grant to Shrieve Chemical Co. of Woodlands, Texas, an exclusive license to U.S. Patent No. 5,676,994, “Non-Separable Starch-Oil Compositions,” issued on October 4, 1997 and to U.S. Patent No. 5,882,713, “Non-Separable Compositions of Starch and Water-Immiscible Organic Materials,” issued on March 16, 1999, for all uses in the field of oil drilling applications including, but not limited to, drilling muds and drilling lubricants.

U.S. Patent No. 5,676,994 is a continuation of U.S. Patent Application Serial No. 08/233,173, “Non-Separable Starch-Oil Compositions,” and U.S.

Patent No. 5,882,713 is a continuation-in-part of U.S. Patent Application Serial No. 08/233,173. Notice of Availability for U.S. Patent Application Serial No. 08/233,173 was published in the **Federal Register** on October 24, 1994.

**DATES:** Comments must be received within thirty (30) calendar days of the date of publication of this Notice in the **Federal Register**.

**ADDRESSES:** Send comments to: USDA, ARS, Office of Technology Transfer, 5601 Sunnyside Avenue, Rm. 4–1174, Beltsville, Maryland 20705–5131.

**FOR FURTHER INFORMATION CONTACT:** June Blalock of the Office of Technology Transfer at the Beltsville address given above; telephone: 301–504–5989.

**SUPPLEMENTARY INFORMATION:** The Federal Government’s patent rights in this invention are assigned to the United States of America, as represented by the Secretary of Agriculture. It is in the public interest to so license this invention as Shrieve Chemical Co. has submitted a complete and sufficient application for a license. The prospective exclusive license will be royalty-bearing and will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. The prospective exclusive license may be granted unless, within thirty (30) days from the date of this published Notice, the Agricultural Research Service receives written evidence and argument which establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

**Michael D. Ruff,**

*Assistant Administrator.*

[FR Doc. 02–14288 Filed 6–6–02; 8:45 am]

**BILLING CODE 3410–03–P**

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## DEPARTMENT OF AGRICULTURE

### Forest Service

#### Siskiyou County Resource Advisory Committee; Meeting

**AGENCY:** Forest Service, USDA.

**ACTION:** Notice of meeting

**SUMMARY:** The Siskiyou County Resource Advisory Committee (RAC) will meet on June 17, 2002, in Yreka, California. The purpose of the meeting is to discuss the following topics: Approval of Previous Meeting Minutes; Rating Criteria Review and Design; Timeline for RFPs from subgroup; Funding mechanisms status (report from Forest Service); Review successful and unsuccessful letters; 15% Merchantable

## **APPENDIX E**

### **U.S. Army Yuma Proving Ground Dig Permit**

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Dig Permits [My Dig Permits](#) | [Create a Dig Permit](#) | [Search Permits](#) | [Generate Report\(s\)](#)  
| [View Printer Friendly Page](#)

### Dig Permit Awaiting Review

[View Work Order](#)

**Work Request/Service Order #:** Work Order XXXX

**Title:** Geomorphological Trenching

**Location:** South of Pole Line Road

**High Priority:**

**Project Engineer:**

**Project Engineer Phone #:**

**Requestor:**

**Requestor Phone #:**

**Begin Date:** February 22, 10

**End Date:** March 03, 10

**Method:** Backhoe

**Depth:** 4 feet

**Width/Diameter:** 3 feet

**Length:** varies, 10-30 feet

**Description of Work to be Performed::** Trench @ 10 locations south of Pole Line Road (see attached maps). Total number of trenches TBD, however, several locations will have >1 trench. Length of ea trench will vary. Work to begin at 164 & 165.

**Hazards that may be Encountered::** 2/18/10 one comment in Work Order Review having to do with assurance that area is cleared for UXO. Requesting concurrent review of both Dig Permit and Work Order while ROM being prepared, so as to expedite approvals for Monday 22 Feb Arrival of personnel doing exploration. 2/?/10 unknown

**Comments:**

**Checklist:**

No - Is the digging being performed in a PM-10 area of YPG? [PM-10 Non Attainment Area](#)

This digging permit is not valid unless signed by the DPW or his authorized representative.  
The approved digging permit must be maintained at the work site during all digging operations.

### Supporting Document(s)

No supporting documents.

### Dig Permit Review Section I - Coordination is Manditory for all Digging Permits.

#### CS-PW Review - **Approved (Conditional)**

Action	CS-PW Reviewer	Date
Record and Drawings Search Complete Drawings <b>Must</b> Accompany Request for Continued Processing		February 18, 10



**Comments**

This Digging Permit shall be with work crew while work is being performed at site. This Digging Permit must be available on site for its duration. When completed, please provide all As-Built Drawings to Public Works (bldg. 308) for documentation.

**CD-ES Review - Approved**

Action	CS-ES Reviewer	Date
A record of environmental consideration is required? - <b>Yes</b>		February 18, 10
A cultural resources survey is required? - <b>No</b>		February 18, 10
A stormwater pollution prevention plan and/or permit is required? - <b>No</b>		February 18, 10
Renovation and demolition activities: asbestos? - <b>No</b>		February 18, 10
Underground storage tanks: change of status, installation or closure? - <b>No</b>		February 18, 10
A septic tank / leach field permit is required? - <b>No</b>		February 18, 10
An aquifer protection permit is required? - <b>No</b>		February 18, 10
The site is clear of known contamination? - <b>Yes (Conditional)</b>		February 18, 10
Natural resources survey required? - <b>No</b>		February 18, 10
Drinking water concerns? - <b>No</b>		February 18, 10
Air quality concerns? - <b>No</b>		February 18, 10

**SWPPP Level****Comments**

###Cultural survey has already been done and no further cultural resources investigation is necessary. If, however, buried cultural items are located during construction or excavation, contact XXXXX at XXXX.### Desert tortoises may be found at some sites. Do not disturb. If tortoises must be moved, follow AZGFD procedures (emailed to proponent). When backfilling trenches, avoid leaving areas where water can pool (to reduce habitat for invasive weeds). Natural resource questions/issues can be addressed to XXXX xXXXX.### Contact Environmental Sciences at xXXXX or xXXXX if hazardous materials or discolored soil is encountered. Carry appropriate spill cleanup materials in case of equipment leaks or line failure. Follow YPG spill protocol for all spills and report spills to Environmental Sciences within 24 hours. - REC has already been completed.

**TD-S Review - Approved**

Action	TD-S Reviewer	Date
Suspected hazard? - <b>No</b> Procedure required? - <b>No</b>		February 22, 10

**Comments**

Ref. CFR 1926, Subpart P applies.

**Dig Permit Review Section II - Coordination is Necessary When Utilities are Known or Suspected.****ISSC Review - Approved (Conditional)**

Action	ISSC Reviewer	Date
An on-site survey is required to mark underground facilities? <b>Yes</b>		February 18, 10

**Comments**

Call 328-XXXX or 920-XXXX prior to digging activities for utility location.

**MT-IM-C Review - Approved**

Action	MT-IM-C Reviewer	Date
An on-site survey is required prior to digging? <b>Yes</b> On-site survey by . . .		February 18, 10
<b>Comments</b>		
Call XXXX/XXXX for cable/fiber locates PRIOR to digging.		

**Dig Permit Review Section III - Coordination is Necessary When Digging is in the Range Areas.**

**MT-R Review - Approved**

Action	MR-R Reviewer	Date
Suspected unexploded ordnance? <b>No</b>		February 18, 10
<b>Comments</b>		
Contact Demo if suspect items are found		

**MT-AR Review - Approved (Conditional)**

Action	MR-AR Reviewer	Date
Has the excavation been cleared? <b>No</b> Surface clearance? Subsurface clearance?		February 18, 10
<b>Comments</b>		
If UXO found call XXXX/XXXX for assistance.		

**Dig Permit Review Section IV - Has necessary coordination been accomplished?**

**MT-AR Review**

Status	Reviewer	Date	Comments
<b>Approved</b> Necessary Coordination Has Been Accomplished, Digging Permit is Approved.		February 22, 10	

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## **APPENDIX F**

### White Tanks Access Form and Sample Letter

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REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
US ARMY INSTALLATION MANAGEMENT COMMAND  
HEADQUARTERS, UNITED STATES ARMY GARRISON, YUMA  
301 C STREET  
YUMA AZ 85365-9498

Month dd, yyyy

Environmental Sciences Division

Ms. First and Last Name

Address Line 1

Address Line 2

City, State, Zip

Dear Ms. Last Name:

The Environmental Sciences Division will coordinate your visit with Yuma Proving Ground's Range Control and Security offices. To ensure your safety while visiting the White Tanks Management Area, please provide the following information to the Cultural Resources Manager, Meg McDonald, (928) 328-2520, one week prior to your visit:

- Your name
- Number of people in party
- Vehicle make, model, license plate number
- Purpose of visit
- Indicate entry point, route, and exit point
- Date of visit

Yuma Proving Ground's Standing Operating Procedures (SOP) for Range Operations (YP-YTRO-P-1000) and Army Regulation 385-63 (Range Safety) are the authorities for general range control precautions and instructions associated with your request to visit the White Tanks Management Area.

While you are on the installation, please respect our policies when visiting the White Tanks Management Area. Do not remove any naturally occurring or manmade materials from the installation. Do not handle or disturb any manmade object that appears to be of military origin. Any change from this policy requires written permission by the installation Senior Commander. As a reminder, you should stay within the delineated White Tanks Management Area. Thank you for your cooperation.

Sincerely,

Richard T. Martin  
Garrison Manager

Enclosure

**PARTICIPANT AGREEMENT:**

I agree to comply with the regulations of U.S. Army Yuma Proving Ground while visiting the White Tanks Management Area. I further agree to waive my rights to hold the United States Government liable or to undertake any type of action against it for personal injury or property damage which may be occasioned by my presence on Yuma Proving Ground as a result of visiting the White Tanks Management Area. Additionally, I acknowledge reading the Visitors Safety Briefing as set forth below.

Visitor Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

If the visitor is less than 18 years old, the signature of a parent or legal guardian is required:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_

Relationship: \_\_\_\_\_

**VISITOR SAFETY BRIEFING ENVIRONMENTAL SAFETY:**

The desert can be a dangerous place. Exposure to climatic elements, rough and rugged terrain, hazardous plants and wildlife await the unprepared. Desert-worthy transportation, first aid kits, maps, water, appropriate dress and contingency plans are all essential for visiting the White Tanks Management Area.

**MISSION SAFETY:**

YPG is a dangerous place. Rockets, artillery, mines, bombs, lasers and explosives are tested here. When ranges are not actively firing, the danger from unexploded ordnance remains. White Tanks Management Area is relatively distant from active ranges and surface ordnance contamination. However, the possibility of encountering unexploded ordnance exists for all lands on YPG, including the White Tanks Management Area. Please be careful and avoid ordnance.

**AREA CLEARANCES:**

Always notify the Environmental Sciences Division, (928) 328-2520, of your intent to visit the White Tanks Management Area. This assures your safety by avoiding conflicts with military users of the same or adjacent areas, and is the primary means that YPG has to respond to emergency situations.

## **APPENDIX G**

### Native American Tribes – Contact List



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Native American Tribes – Contact List  
March 2012

Contact Person	Address	Telephone / Fax	Package Delivery
<b>Ak-Chin Indian Community (<a href="http://www.ak-chin.nsn.us">http://www.ak-chin.nsn.us</a>)</b>			
Mr. Louis J. Manuel , Jr. Chairman, Tribal Council Current term of office ends January 2013	Ak-Chin Indian Community 42507 W. Peters & Nall Rd. Maricopa, AZ 85239	520-568-1000 / 520-568-1001	
Ms. Caroline Antone Cultural Resources Manager <a href="mailto:Cantone@ak-chin.nsn.us">Cantone@ak-chin.nsn.us</a>	Ak-Chin Indian Community 42507 W. Peters & Nall Rd. Maricopa, AZ 85239	520-568-1372 / 520-568-1366	
Mr. Gary Gilbert Cultural Resources Specialist <a href="mailto:Ggilber@ak-chin.nsn.us">Ggilber@ak-chin.nsn.us</a>	Ak-Chin Indian Community 42507 W. Peters & Nall Rd. Maricopa, AZ 85239	520-568-1369 / 520-568-1366	
<b>Chemehuevi Indian Tribe (<a href="http://www.chemehuevi.net">http://www.chemehuevi.net</a>)</b>			
Mr. Charles Wood Chairman, Tribal Council Current term of office ends April 2012	Chemehuevi Indian Tribe P.O. Box 1976 Havasu Lake, CA 92363	760-858-4301 / 760-858-5400	Chemehuevi Indian Tribe 1990 Palo Verde Blythe, CA 92363
Mr. Ronald Escobar Secretary-Treasurer, Tribal Council <a href="mailto:ronetribe@yahoo.com">ronetribe@yahoo.com</a> Current term of office ends April 2012	Chemehuevi Indian Tribe P.O. Box 1976 Havasu Lake, CA 92363	760-858-4219 / 760-858-5400	Chemehuevi Indian Tribe 1990 Palo Verde Blythe, CA 92363
<b>Cocopah Indian Tribe (<a href="http://www.cocopah.com">http://www.cocopah.com</a>)</b>			
Ms. Sherry Cordova Chairwoman, Tribal Council Current term of office ends July 2012	Cocopah Indian Tribe 14515 S. Veterans Dr. Somerton, AZ 85350	928-627-2102 / 928-627-3173	
Ms. Jill McCormick Cultural Resources Manager <a href="mailto:culturalres@cocopah.com">culturalres@cocopah.com</a>	Cocopah Indian Tribe 14515 S. Veterans Dr. Somerton, AZ 85350	928-627-4849 / 928-627-3173	
<b>Colorado River Indian Tribes (<a href="http://www.crit-nsn.gov/crit_contents/government">http://www.crit-nsn.gov/crit_contents/government</a>)</b>			
Mr. Eldred Enas Chairman, Tribal Council Current term of office ends December 2012	Colorado River Indian Tribes 26600 Mohave Road Parker, AZ 85344	928-669-9211 / 928-669-1216	
Mr. George Ray Director, Colorado River Indian Tribes Museum <a href="mailto:crit.museum@yahoo.com">crit.museum@yahoo.com</a>	Colorado River Indian Tribes 26600 Mohave Road Parker, AZ 85344	928-669-1339 / 928-669-1925	
Ms. Lisa Swick Cultural Compliance Technician <a href="mailto:crit.museum@yahoo.com">crit.museum@yahoo.com</a>	Colorado River Indian Tribes 26600 Mohave Road Parker, AZ 85344	928-669-1339 / 928-669-1925	

Contact Person	Address	Telephone / Fax	Package Delivery
<b>Fort McDowell Yavapai Nation Community (<a href="http://www.ftmcdowell.org">http://www.ftmcdowell.org</a>)</b>			
Dr. Clinton M. Pattea President, Tribal Council Current term of office ends December 2015	Fort McDowell Yavapai Nation Community P.O. Box 17779 Fountain Hills, AZ 85268	480-837-5121 / 480-837-7957	Fort McDowell Yavapai Nation Community 17661 East Yavapai Road Fort McDowell, AZ 85264
Ms. Karen Ray Language/Cultural Coordinator <a href="mailto:kray@ftmcdowell.org">kray@ftmcdowell.org</a>	Fort McDowell Yavapai Nation Community P.O. Box 17779 Fountain Hills, AZ 85268	602-577-1915 / 480-837-7957	17661 East Yavapai Road, Fort McDowell, AZ 85264
Mr. Gary Loutzenheiser Director of Education <a href="mailto:gloutzenheiser@ftmcdowell.org">gloutzenheiser@ftmcdowell.org</a>	Fort McDowell Yavapai Nation Community P.O. Box 17779 Fountain Hills, AZ 85268	480-789-7229 / 480-837-7957	17661 East Yavapai Road, Fort McDowell AZ 85264
<b>Fort Mojave Indian Tribe (<a href="http://www.fortmojave.com">http://www.fortmojave.com</a>)</b>			
Mr. Timothy Williams Chairman, Tribal Council Current term of office ends June 2015	Fort Mojave Indian Tribe 500 Merriman Avenue Needles, CA 92363	760-629-4591 / 760-629-2468	
Ms. Linda Otero Director, AhaMaKav Cultural Society <a href="mailto:lindaotero@fortmojave.com">lindaotero@fortmojave.com</a>	Fort Mojave Indian Tribe P.O. Box 5990 Mohave Valley, AZ 86440	928-768-4475 / 928-768-7996	Fort Mojave Indian Tribe 500 Merriman Avenue Needles, CA 92363
<b>Gila River Indian Community (<a href="http://www.gilariver.org">http://www.gilariver.org</a>)</b>			
Mr. Gregory Mendoza Governor, Tribal Council Current term of office ends December 2014	Gila River Indian Community P.O. Box 97 Sacaton, AZ 85147	520-562-9841 / 520-562-9849	Gila River Indian Community 525 West Gu u Ki Sacaton, AZ 85147
Mr. Barnaby V. Lewis Tribal Historic Preservation Officer <a href="mailto:Barnaby.Lewis@gric.nsn.us">Barnaby.Lewis@gric.nsn.us</a>	Gila River Indian Community P.O. Box 2140 Sacaton, AZ 85147	520-562-6713 or x6743 / 520-562-5083	Gila River Indian Community 525 West Gu u Ki Sacaton, AZ 85147
Mr. Larry Benallie , Jr. Archaeological Compliance Specialist <a href="mailto:Larry.Benallie@gric.nsn.us">Larry.Benallie@gric.nsn.us</a>	Gila River Indian Community P.O. Box 2140 Sacaton, AZ 85147	520-562-7153 / 520-562-5083	Gila River Indian Community 525 West Gu u Ki Sacaton, AZ 85147
<b>Hopi Tribe (<a href="http://www.hopi-nsn.gov">http://www.hopi-nsn.gov</a>)</b>			
Mr. LeRoy N. Shingoitewa Chairman, Tribal Council Current term of office ends December 2013	Hopi Tribe P.O. Box 123 Kykotsmovi, AZ 86039	928-734-3102 / 928-734-6665	Hopi Tribe One Main Street Kykotsmovi, AZ 86039
Mr. Leigh Kuwanwisiwma Director, Hopi Cultural Preservation Office <a href="mailto:lkuwanwisiwma@hopi.nsn.us">lkuwanwisiwma@hopi.nsn.us</a>	Hopi Tribe P.O. Box 123 Kykotsmovi, AZ 86039	928-734-4612 or x3611 / 928-734-3629	Hopi Tribe One Main Street Kykotsmovi, AZ 86039
Mr. Terry Morgart Legal Researcher <a href="mailto:tmorgart@hopi.nsn.us">tmorgart@hopi.nsn.us</a>	Hopi Tribe P.O. Box 123 Kykotsmovi, AZ 86039	928-734-3619 / 928-734-3629	Hopi Tribe One Main Street Kykotsmovi, AZ 86039

Native American Tribes – Contact List  
March 2012

Contact Person	Address	Telephone / Fax	Package Delivery
<b>Quechan Indian Tribe (<a href="http://www.itcaonline.com/tribes_quechan.html">http://www.itcaonline.com/tribes_quechan.html</a>)</b>			
Mr. Keeny Escalanti , Sr. President, Tribal Council Current term of office ends December 2014	Quechan Indian Tribe P.O. Box 1899 Yuma, AZ 85366	760-572-0213 / 760-572-2102	Quechan Indian Tribe 350 Picacho Road Winterhaven, CA 92283
Mr. John Bathke Quechan Historic Preservation Officer <a href="mailto:jbathke@quechantribe.com">jbathke@quechantribe.com</a>	Quechan Indian Tribe P.O. Box 1899 Yuma, AZ 85366	760-572-2423 / 760-572-0515	Quechan Indian Tribe 350 Picacho Road Winterhaven, CA 92283
Mrs. Pauline José Chairwoman, Quechan Cultural Committee	Quechan Indian Tribe P.O. Box 1899 Yuma, AZ 85366	760-572-0661 / 760-572-2102	Quechan Indian Tribe 350 Picacho Road Winterhaven, CA 92283
<b>Salt River Pima-Maricopa Indian Community (<a href="http://www.srpmic-nsn.gov">http://www.srpmic-nsn.gov</a>)</b>			
Ms. Diane Enos Chairwoman, Tribal Council Current term of office ends December 2014	Salt River Pima-Maricopa Indian Community 10005 East Osborn Road Scottsdale, AZ 85256	480-362-7400 / 480-362-7593	
Mr. Kelly Washington Cultural Resources Department Director <a href="mailto:kelly.washington@SRPMIC-nsn.gov">kelly.washington@SRPMIC-nsn.gov</a>	Salt River Pima-Maricopa Indian Community 10005 East Osborn Road Scottsdale, AZ 85256	480-850-8325 / 480-850-2940	
Mr. Shane Antone Cultural Resources Supervisor <a href="mailto:shane.antone@SRPMIC-nsn.gov">shane.antone@SRPMIC-nsn.gov</a>	Salt River Pima-Maricopa Indian Community 10005 East Osborn Road Scottsdale, AZ 85256	480-850-4708 / 480-850-2940	
<b>San Carlos Apache Tribe (<a href="http://www.sancarlosapache.com">http://www.sancarlosapache.com</a>)</b>			
Mr. Terry Rambler Chairman, Tribal Council Current term of office ends November 2014	San Carlos Apache Tribe P.O. Box O San Carlos, AZ 85550	928-475-2361 / 928-475-2567	San Carlos Apache Tribe San Carlos Avenue San Carlos, AZ 85550
Ms. Vernelda Grant Tribal Historic Preservation Officer <a href="mailto:apachevern@yahoo.com">apachevern@yahoo.com</a>	San Carlos Apache Tribe P.O. Box O San Carlos, AZ 85550	928-475-5797 / 928-475-2423	San Carlos Apache Tribe San Carlos Avenue San Carlos, AZ 85550
<b>Tohono O'Odham Nation (<a href="http://www.tonation-nsn.gov/default.aspx">http://www.tonation-nsn.gov/default.aspx</a>)</b>			
Mr. Ned Norris , Jr. Chairman, Tribal Council Current term of office ends May 2013	Tohono O'Odham Nation P.O. Box 837 Sells, AZ 86534	520-383-2028 / 520-383-3379	Tohono O'Odham Nation Main Street, Bldg #49 Sells, AZ 85634
Mr. Peter Steere Tribal Historic Preservation Officer <a href="mailto:psteere@toua.net">psteere@toua.net</a> or <a href="mailto:peter.steere@tonation-nsn.gov">peter.steere@tonation-nsn.gov</a>	Tohono O'Odham Nation P.O. Box 837 Sells, AZ 86534	520-383-0202 x103 / 520-383-0217	Tohono O'Odham Nation Main Street, Bldg #49 Sells, AZ 85634
Mr. Joseph Joaquin Cultural Resource Specialist <a href="mailto:itjoaquin@hotmail.com">itjoaquin@hotmail.com</a>	Tohono O'Odham Nation P.O. Box 837 Sells, AZ 86534	520-383-0202 x113 / 520-383-0217	Tohono O'Odham Nation Main Street, Bldg #49 Sells, AZ 85634

<b>Contact Person</b>	<b>Address</b>	<b>Telephone / Fax</b>	<b>Package Delivery</b>
<b>Yavapai-Apache Nation (<a href="http://www.yavapai-apache.org/index.html">http://www.yavapai-apache.org/index.html</a>)</b>			
Mr. David Kwail Chairman, Tribal Council Current term of office ends September 2013	Yavapai-Apache Nation 2400 W. Datsi Road Camp Verde, AZ 86322	928-567-3649 / 928-567-3994	
Ms. Delores Plunkett Director, Cultural Department <a href="mailto:dplunkett@yan-tribe.org">dplunkett@yan-tribe.org</a>	Yavapai-Apache Nation 2400 W. Datsi Road Camp Verde, AZ 86322	928-649-6963 / 928-567-6832	
Mr. Chris Coder Archaeologist <a href="mailto:ccoder@yan-tribe.org">ccoder@yan-tribe.org</a>	Yavapai-Apache Nation 2400 W. Datsi Road Camp Verde, AZ 86322	928-649-6962 / 928-567-6832	
Ms. Judie Piner Preservation & Technology Administrator <a href="mailto:jpiner@yan-tribe.org">jpiner@yan-tribe.org</a>	Yavapai-Apache Nation 2400 W. Datsi Road Camp Verde, AZ 86322	928-649-6961 / 928-567-6832	
<b>Yavapai-Prescott Tribe (<a href="http://www.vpit.com">http://www.vpit.com</a>)</b>			
Mr. Ernest Jones, Sr. President, Tribal Council Current term of office ends July 2012	Yavapai-Prescott Tribe 530 East Merritt Street Prescott, AZ 86301	928-777-9404 / 928-778-9445	
Ms. Linda Ogo Culture Research Department Director <a href="mailto:logo@ypit.com">logo@ypit.com</a>	Yavapai-Prescott Tribe 530 East Merritt Street Prescott, AZ 86301	928-777-9437 / 928-778-9445	
Mr. Greg Glassco Compliance Officer <a href="mailto:gglassco@ypit.com">gglassco@ypit.com</a>	Yavapai-Prescott Tribe 530 East Merritt Street Prescott, AZ 86301	928-445-8790 / 928-778-9445	

## **APPENDIX H**

U.S. Army Yuma Proving Ground Cultural Resources Reports

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## U.S. Army Yuma Proving Ground Cultural Resources Reports

Report Log Current through December 2010

### Organization:

ACS	=	Archaeological Consulting Services, Inc., Tempe, AZ
AC	=	Anteon Corp., San Diego, CA
ARS	=	Archaeological Research Services, Inc., Tempe, AZ
ASM	=	Archaeological Systems Management Affiliates, San Diego, CA
AZDOT	=	Arizona Department of Transportation, Phoenix, AZ
AZSM	=	Arizona State Museum, Tucson, AZ
BFM	=	Brian F. Mooney Associates, Inc., San Diego, CA
BLM	=	Bureau of Land Management, Yuma, AZ
BTI	=	Building Technology Incorporated, Silver Spring, MD
DAI	=	Desert Archaeology, Inc., Tucson, AZ
DRI	=	Desert Research Institute, Reno, NV
EPG	=	Environmental Planning Group, Phoenix, AZ
ETC	=	Earth Technology Corp., Colton, CA
GPI	=	Gutierrez-Palmenberg, Inc., Yuma, AZ
JAC	=	Jason Associates Corp., Yuma, AZ
JRP	=	JRP Historical Consultants, Inc., Davis, CA
LSD	=	Logan Simpson Design, Tempe, AZ
MNA	=	Museum of Northern Arizona, Flagstaff, AZ
NRI	=	Northland Research, Inc., Flagstaff, AZ
SAIC	=	Science Applications International Corp., San Diego, CA
SRI	=	Statistical Research, Inc., Tucson, AZ
SSI	=	Soils Systems, Inc., Phoenix, AZ
SWCA	=	Steven W. Caruthers and Associates, Scottsdale, AZ
TES	=	Tierra Environmental Services, San Diego, CA
UCR	=	University of California, Riverside, CA
USBR	=	U.S. Bureau of Reclamation, Boulder City, NV
WES	=	U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS
WESTEC	=	WESTEC Services, Inc., San Diego, CA
YPG	=	U.S. Army Yuma Proving Ground, Yuma, AZ
ZIA	=	Zia Engineering and Environmental Consultants, Las Cruces, NM

Report # YPG-R-	Author	Date	Title	Organization
1	Johnson, Boma	1981	Cultural Resources Along the Proposed New Jersey Zinc Power and Water Lines	BLM
2	Swarthout, Jeanne, and Christopher E. Drover	1981	Final Report for an Archaeological Overview for the Lower Colorado River Valley, Arizona, Nevada, and California Reach 3 Davis Dam to the International Border	MNA, USBR
3	Effland, Richard W., and Margerie Green	1983	Cultural Resource Investigations for the Yuma 500kV Transmission Line, Arizona Public Service Company, Cultural Resources Report 14	ACS
4	Mann, Timothy	1983	The Yuma Proving Ground Archaeological Surveys 1982-83	BLM
5	Sires, Earl	1984	An Archaeological Clearance Survey of Arizona Department of Transportation Materials Pit #8719 Martinez Lake, Yuma County, Arizona	AZDOT, AZSM
6	Hoffman, Teresa L.	1984	A Cultural Resources Overview and Management Plan for YPG	SSI
7	Schilz, Allan J., and Joyce M. Clevenger	1985	Archaeological Investigations on the Yuma Proving Ground: Direct Fire Weapons Range Phase I	WESTEC



Report # YPG-R-	Author	Date	Title	Organization
8	Altschul, Jeffrey H., and Steven D. Shelley	1987	Class II Cultural Resources Survey for the Gila Land Disposal Project, Yuma County, Arizona	SRI
9	Effland, Richard W., and Allan J. Schilz	1987	Archaeological Investigations on the Yuma Proving Ground: Survey and Evaluation of the Laguna Army Airfield	WESTEC
10	Elling, C. Michael, and Jerry Schaefer	1987	Archaeological Investigations on the Yuma Proving Ground: A Survey of Lithic Quarries and Chipping Stations in the North Cibola Range	BFM
11	Effland, Richard W., Allan J. Schilz, and Patricia R. Jertberg	1987	Archaeological Investigations on the Yuma Proving Ground: The Direct Fire Weapons Range, Phase II	WESTEC
12	Johnson, Boma	1988	Archaeological Evaluation of a Proposed Aerostat Balloon Site on Yuma Proving Ground, Yuma, Arizona	BLM
13	Schilz, Allan J., Carolyn Kyle, and Joyce M. Clevenger	1988	Archaeological Investigations on the Yuma Proving Ground Archaeological Recordation and Assessment	WESTEC
14	Schaefer, Jerry	1988	TEXS North Cultural Resources Inventory	BFM
15	Mooney and Associates	1988	Work Plan for a Stratified Sample Survey on the Yuma Proving Ground, North Cibola Range	BFM
16	Effland, Richard W., Allan J. Schilz, Joyce M. Clevenger, and Elizabeth Elstein	1988	Archaeological Investigations on the Yuma Proving Ground: Sample Survey of the Cibola Range, an Assessment of Cultural Resource Sensitivity in the Western Deserts of Arizona	WESTEC
17	Schaefer, Jerry, and John R. Cook	1988	Results of Three Surveys on the Yuma Proving Ground: Red Bluff, Obod, and Direct Fire Weapons Range	BFM
18	Nowak, Timothy R.	1988	A Cultural Resources Evaluation of a Proposed Natural Water Tank Enhancement in the Trigo Mountains of the South Cibola Range, Yuma Proving Ground, Arizona	YPG
19	Nowak, Timothy R.	1988	Cultural Resources Assessment – Four KTM Sites in South Cibola Range	YPG
20	Nowak, Timothy R.	1989	Cultural Resources Assessment – Aerostat Communication Line in Castle Dome Heliport Vicinity, South Cibola Range	YPG
21	Nowak, Timothy R.	1989	Cultural Resources Assessment – Special Project Test Site in the Kofa Firing Range	YPG
22	Nowak, Timothy R.	1989	Cultural Resources Assessment – Communication Lines for Four HIP Sites in the Kofa Firing Range	YPG
23	Nowak, Timothy R.	1989	Cultural Resources Assessment – Installation of an Overhead Powerline in the Kofa Firing Range	YPG
24	Schaefer, Jerry	1989	A Cultural Resources Records Search of the Yuma Proving Ground	BFM
25	Nowak, Timothy R.	1989	Cultural Resources Assessment – CCTV Cable Installation in the Ammo Igloo Magazine Storage Area, Kofa Firing Range	YPG
26	Nowak, Timothy R.	1989	Cultural Resources Assessment – Drop Test Development Site in the Kofa Firing Range	YPG
27	Nowak, Timothy R.	1989	A Cultural Resources Evaluation of a Proposed Nitromethane Test Development Site in the South Trigo Peaks Area of the North Cibola Range, Yuma Proving Ground, Arizona	YPG
28	Schaefer, Jerry	1989	Hunter Gatherer Settlement Patterns on the Cibola Direct Fire Weapons Range, Yuma Proving Ground: Results of a Stratified Random Sample Survey	BFM
29	Nowak, Timothy R.	1989	Cultural Resources Assessment – Proposed ROVITS Construction in the Kofa Firing Range	YPG
30	Nowak, Timothy R.	1989	Cultural Resources Assessment – Five KTM Mound Sites in the Kofa Firing Range	YPG
31	Nance, Edgar F.	1989	Bureau of Reclamation Trigo Wash Quarry Evaluation	USBR
32	Schaefer, Jerry	1989	A Patayan Seed Grinding Complex on the Yuma Proving Ground, Arizona	BFM

Report # YPG-R-	Author	Date	Title	Organization
33	Schaefer, Jerry, and Eric Jacobson	1989	Results of a Stratified Random Sample Survey in the North Cibola Range, Yuma Proving Ground, Arizona	BFM
34	Nowak, Timothy R.	1990	A Cultural Resources Evaluation of a Proposed TOW 2B Missile Performance Test Site in the Mohave Wash Drainage Area of the North Cibola Range, Yuma Proving Ground, Arizona	YPG
35	Cottrell, Marie	1991	Archaeological Resource Assessment for the Proposed Electromagnetic/Electrothermal Chemical (EM/ETC) Gun Facility at Yuma Proving Ground, Arizona	YPG
36	Ashworth, Kenneth A.	1991	Draft Environmental Assessment: Construction, Operation, and Impacts of Operation after Construction of La Posa Drop Zone in Connection with C-17 Airdrop Testing at Yuma Proving Ground	YPG
37	Ashworth, Kenneth A.	1991	Archaeological Sites Located Adjacent to Water Line replacement Project, Castle Dome Area	YPG
38	Ashworth, Kenneth A.	1991	Cultural Resource Survey, Proposed Construction of Rocket Shade, KFR-Minefield	YPG
39	Ashworth, Kenneth A.	1991	Cultural Resource Assessment of Proposed C-17 Runway Construction	YPG
40	Ashworth, Kenneth A.	1991	Proposed Expansion of Horse Pen	YPG
41	Ashworth, Kenneth A.	1991	Cultural Resource Survey and Assessment of Proposed La Posa Drop Zone	YPG
42	Ashworth, Kenneth A.	1991	Cultural Resource Survey of Mission-Support trailer Locations at Tower 31	YPG
43	Ashworth, Kenneth A.	1991	Cultural Resource Survey of Tactical Explosive Site Adjacent to La Posa DZ	YPG
44	Ashworth, Kenneth A.	1991	Paint Test Ashworth and Harper	YPG
45	Dosh, Steven G., and William S. Marmaduke	1992	Archaeological Investigations Jefferson Proving Ground Relocation Phase I Mitigation Studies: Evaluation of the Sleeping Circle Regeneration Hypothesis. Volume 2 Technical Narrative	NRI
46	Marmaduke, William S., Steven G. Dosh, and Kenneth A. Ashworth	1992	Plan of Work Phase 2 Mitigation Studies for the Jefferson Proving Ground Facilities, Yuma Proving Ground, Arizona	NRI, YPG
47	Marmaduke, William S., Steven G. Dosh, and Kenneth A. Ashworth	1992	Plan of Work Phase 1 Mitigation Studies Jefferson Proving Ground Relocation Areas	NRI, YPG
48	Ashworth, Kenneth A.	1992	Cultural Resource Survey and Assessment of Light Armored Vehicle Test Course	YPG
49	Dosh, Steven G., and William S. Marmaduke	1992	Archaeological Investigations, Jefferson Proving Ground Relocation Phase 1 Mitigation Studies: Evaluation of the Sleeping Circle Regeneration Hypothesis. Volume 1 Technical Narrative	NRI
50	Dosh, Steven G., and William S. Marmaduke	1992	Cultural Resources Inventory Jefferson Proving Ground Relocation, U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
51	Homburg, Jeffrey A.	1992	Cultural Resources Sample Survey of Potential Electromagnetic Pulse Simulator Site: East Arm of the Yuma Proving Ground, Yuma County, Arizona	SRI, SAIC
52	Torres, Javier F., and Bob Manygoats	1992	Final Ethnographic Resources Report El Paso Natural Gas Company Yuma Lateral Expansion Project: California Line, San Luis Line, and Yuma Line	SWCA
52A	Torres, Javier F.	1993	Addendum to an Ethnographic Survey of the Yuma Lateral Expansion Project: Yuma and San Luis Line Realignment, Yuma County, Arizona	SWCA
53	Haynes-Peterson, Robert G.	1992	Addendum to an Archaeological Survey of the Yuma Lateral Expansion Project: Realignment North of the Gila River, Yuma County, Arizona	SWCA

Report # YPG-R-	Author	Date	Title	Organization
53A	Doak, David P.	1993	Second Addendum to an Archaeological Survey of the Yuma Lateral Expansion Project: Realignment South of the Gila River, Yuma County, Arizona	SWCA
54	McQuestion, Kathleen P., Robert G. Haynes-Peterson, and Pat H. Stein	1992	An Archaeological Survey of the Yuma Lateral Expansion Project, La Paz and Yuma Counties, Arizona	SWCA
55	Haynes-Peterson, Robert G.	1993	Third Addendum to an Archaeological Survey of the Yuma Lateral Expansion Project: 40 Soil Testing Sites, Yuma County, Arizona	SWCA
55A	Seymour, Gregory R.	1992	An Archaeological Survey for Nineteen Soils Testing Sites Along the Gila River, Yuma County, Arizona	SWCA
56	Schaefer, Jerry, Ken Hedges, Diane L. Hamann, and M. Steven Shackley	1993	Hunter Gatherer Settlement, Subsistence, and Symbolism at White Tanks, Yuma Proving Ground, Arizona	BFM
57	Dosh, Steven G., and William S. Marmaduke	1993	Cultural Resources Inventory of the Target Recognition Range in Lower Yuma Wash, U.S. Army Yuma Proving Ground, La Paz County, Arizona	NRI
58	Dosh, Steven G.	1993	Archaeological Survey of Approximately One Mile of Powerline Realignment for Runway Avoidance near Laguna Army Air Field, U.S. Army Yuma Proving Ground, Arizona	NRI
59	Dosh, Steven G.	1993	Cultural Resources Inventory Survey of the Proposed Laguna Army Air Field Runway Extension Turnaround, U.S. Army Yuma Proving Ground, Arizona	NRI
60	Dosh, Steven G.	1993	Cultural Resources Inventory Survey of 1.5 Acres for Electrical Power Improvement of Site #3 Drop Test Area, Cibola Range, U.S. Army Yuma Proving Ground, Arizona	NRI
61	Dosh, Steven G.	1993	Cultural Resources Inventory Survey of Proposed Aircraft Armament Pads and an Access Road on Cobra Flats, South Cibola Range, U.S. Army Yuma Proving Ground, Arizona	NRI
62	Dosh, Steven G.	1993	Cultural Resources Inventory Survey of the Proposed Kofa Sewage Lagoon and Sewer Line, U.S. Army Yuma Proving Ground, Arizona	NRI
63	Marmaduke, William S., and Steven G. Dosh	1994	The Cultural Evolutionary Context of "Sleeping Circle" Sites in the Lower Colorado River Basin	NRI
64	Dosh, Steven G.	1994	Cultural Resources Inventory Survey of the Rock Ledge Course Expansion and Access Road, U.S. Army Yuma Proving Ground, Arizona	NRI
65	Dosh, Steven G., and William S. Marmaduke	1994	Cultural Resources Inventory of the Target Recognition Range in Lower Yuma Wash, U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
66	Dosh, Steven G.	1994	Cultural Resource Mitigation AZ R:15:217(ASM) Rock Ledge Test Course Access, U.S. Army Yuma Proving Ground, Arizona	NRI
67	Dosh, Steven G.	1994	Cultural Resources Inventory Survey Proposed Parking Lot for the Camp Laguna Interpretive Display, U.S. Army Yuma Proving Ground, Arizona	NRI
68	Dosh, Steven G.	1994	Cultural Resources Inventory Survey of the Proposed Test Vehicle Access Roads to the Kofa Dust Course and Gun Position 20, U.S. Army Yuma Proving Ground, Arizona	NRI
69	Dosh, Steven G., and William S. Marmaduke	1995	Cultural Resources Inventory of the Mobility Test Areas, U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
70	Smithwick, James M.	1994	Cultural Resources Survey Report of the Wide Area Mine Buried Optic Fiber Cable Corridor from Castle Dome Heliport to Chicken Little, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI

Report # YPG-R-	Author	Date	Title	Organization
71	Smithwick, James M.	1994	Cultural Resources Report of Roadrunner DZ Powerline Corridor, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
72	Miller, Elisabeth A.	1995	Resources Management Plan Historic Preservation Plan Phase 1, Yuma Proving Ground	GPI
73	Smithwick, James M.	1995	Cultural Resources Report of Castle Dome Heliport Borrow Pit, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
74	Smithwick, James M.	1995	Cultural Resources Report of Forty-Foot Drop Zone, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
75	Smithwick, James M.	1995	Cultural Resources Report of the Phillips Drop Zone, U.S. Army, Yuma Proving Ground, Yuma County, Arizona	GPI
76	Smithwick, James M.	1995	Cultural Resources Report of New Ammunition Storage Facility Site, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
77	Smithwick, James M.	1995	Cultural Resources Report of Impact East High Explosive Impact Area, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
78	Gutierrez-Palmenberg, Inc.	1995	Cultural Resources Mitigation Report of Site 02-050-1172 (BLM) Impact East High Explosive Area, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
79	Smithwick, James M.	1995	Cultural Resources Report of Cibola South Pad Improvements High-Wire Corridor, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
80	Smithwick, James M.	1995	Cultural Resources Report of the Powerline Corridor to GP21A, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
81	Smithwick, James M.	1995	Cultural Resources Report of the Joint Camouflage, Concealment and Deception Area, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
82	Smithwick, James M.	1995	Cultural Resources Report of the Cibola Tank Trail, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
83	Smithwick, James M., and Mark T. Bentley	1995	Cultural Resources Report of the Equipment Access Corridor at Laguna Airfield, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
84	Stone, Bradford W.	1995	Cultural Resources Survey of a 25 Mile Long Segment of Arizona Department of Transportation Right-of-Way for U.S. Highway 95 Between Mileposts 38 and 63, North of Yuma, Yuma and La Paz Counties, Arizona	ARS
85	Bentley, Mark T.	1996	Archaeological Survey South/Southeast of Laguna Army Airfield, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
86	Bentley, Mark T.	1996	Cultural Resources Report for the Cadet Training Camp in Cibola Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
87	Bentley, Mark T.	1996	Cultural Resources Report for the General Support Test Project, U.S. Army Yuma Proving Ground, La Paz County, Arizona	GPI
88	Bentley, Mark T.	1996	Cultural Resources Report for the DT/OT – North Cibola Survey, U.S. Army Yuma Proving Ground, La Paz County, Arizona	GPI
89	Bentley, Mark T.	1996	General Support Test Additional Survey	GPI
90	Bentley, Mark T., and Roxanne W. Walker	1996	An Aerial Cultural Resource Reconnaissance in North Cibola Range, U.S. Army Yuma Proving Ground, La Paz County, Arizona	GPI
91	Bentley, Mark T.	1996	Cultural Resource Survey Report for the Combat Systems Live Fire Range Access Road, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI

Report # YPG-R-	Author	Date	Title	Organization
92	Bentley, Mark T., and Roxanne W. Walker	1996	A Cultural Resource Aerial Reconnaissance Northeast of the Red Bluff Mountain Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
93	Bentley, Mark T., and Roxanne W. Walker	1997	Cultural Resource Survey Report for the Combat Systems Live Fire Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
94	Bentley, Mark T., and Roy William Rohrer	1997	Cultural Resources Survey Report for the Test Support Network – Phase I, U.S. Army Yuma Proving Ground, La Paz and Yuma Counties, Arizona	GPI
95	Wright, Thomas E., and Michelle N. Stevens	1997	Cultural Resources Survey of a 33 Mile Long Segment of U.S. Highway 95 Right-of-Way Between Quartzsite and Yuma (Mileposts 63-96), Yuma and La Paz Counties, Arizona	ARS, ADOT
96	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Additional Access Road to the Rock Ledge Course, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
97	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Smart Munitions Project, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
98	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Radio Trunk New Road Project, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
99	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Range Digital Technical System Project, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
100	Bentley, Mark T.	1997	Cultural Resources Survey Report for the MVT Mortar Range Improvements Project, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
101	Bentley, Mark T.	1997	Cultural Resources Survey Report for Project Magpie, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
102	Briuer, Frederick L., J. David Lashlee, and William L. Murphy	1997	Cultural Resources Survey for the Proposed Combat Systems Maneuver Area (Phase I and II Areas).	WES
103	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Smart Munitions Test Facility Borrow Pit, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
104	Bentley, Mark T.	1997	Cultural Resources Survey Report for the Water Jet Facility Access Road on Kofa Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	GPI
105	Moreno, Jerryll, James Potter, Holly DeMaagd, and Barbara S. Macnider	1997	Archaeological Survey of the Parker to Gila 161 KV Transmission Line, San Bernardino County, California to Yuma County, Arizona	ACS
106	Gauna, Delores	1998	Borrow Pit For Yuma County	
107	Huber, Edgar K., and Scott O'Mack	1999	Class III Cultural Resources Inventory of the New Countermine Facility, Kofa Firing Range, Yuma Proving Ground, Arizona	SRI
108	Vanderpot, Rein, and Jeffrey H. Altschul	1999	Patterns in the Pavement: A Class III Cultural Resources Inventory and Evaluation of the Extended Combat Systems Maneuver Area, Kofa Firing Range, Yuma Proving Ground, Arizona	SRI
109	Bischoff, Matt C.	1999	An Architectural Survey of U.S. Army Yuma Proving Ground, Arizona	SRI
110	Brown, Gregory B.	1999	A Cultural Resources Survey of U.S. 95 Between Mileposts 32.0-47.3 From Avenue 9E to Aberdeen Road, North of Yuma, Yuma County, Arizona	SRI

Report # YPG-R-	Author	Date	Title	Organization
111	DeMaagd, Holly, and Barbara S. Macnider	2000	Cultural Resource Survey of the Parker to Gila 161 KV Transmission Line Structures 74-6 to 116-5, Yuma and La Paz Counties, Arizona	ACS
112	Huber, E. and S. O'Mack	2000	At the Foot of the Palomas: A Class II Cultural Resources Sample Survey of the M898 Sense and Destroy Armor Program, Limited User Test Area, Yuma Proving Ground, Arizona	SRI
113	Zyniecki, M.	2000	A Cultural Resources Inventory of 5,062 Acres Near Mohave Wash and Mohave Tanks for a Proposed Drop Zone in the Cibola Range, La Paz County, Arizona	NRI
114	Duff, Gabrielle, and Edgar K. Huber	2001	Windy Hill to Signal Butte: Results of a Class III Cultural Resource Inventory of 5.8 Miles of Fiber-Optic Line, Yuma Proving Ground, Arizona	SRI
115	Zyniecki, M.	2001	Archaeological Survey for a Proposed Cellular Telephone Tower at the U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
116	Giacomini, Barb, Matt Murray, and Noah Stewart	2001	A Cultural Resources Inventory of Selected Properties along Public Routes from Yuma Proving Ground, Arizona to Twenty-Nine Palms, California, in Support of Operation Desert Scimitar: First Marine Division, Camp Pendleton, California	AC
117	Campbell, Kirsten	2001	Cultural Resources Monitoring along the Parker Gila 116 KV Transmission Line Rehabilitation Project (Western Area Power Administration Survey)	
118	Carlson, J. Tyler	2001	Western Area Power Administration (Western) Parker-Gila 161kV Transmission Line Rehabilitation Project.	
119	Wegener, Robert M., and Matt C. Bischoff	2002	Class III Cultural Resources Inventory of the Proposed Countermine Facility Extension, Kofa Firing Range, Yuma Proving Ground, Arizona	SRI
120	Giacomini, Barb, Matt Murray, and Noah Stewart	2002	A Cultural Resources Inventory of Selected Properties along Public Routes from Twenty-Nine Palms, California to Yuma Proving Ground, Arizona, in Support of Operation Desert Scimitar 2002: First Marine Division, Camp Pendleton, California	AC
121	Douglass, John G., Benjamin R. Vargas, and Edgar K. Huber	2002	A Class III Cultural Resources Inventory and Evaluation of the Proposed Hot Weather Test Complex (HWTC), Yuma Proving Ground, Arizona	SRI
122	Giacomini, Barb, Patrick McGinnis, Matt Murray, and Noah Stewart	2002	A Cultural Resources Inventory of Selected Properties along Public Routes from Yuma Proving Ground, Arizona to Twenty-nine Palms, California, in Support of Operation Desert Scimitar 2003: First Marine Division, Camp Pendleton California	AC
123	Miljour, Heather J.	2003	Class III Cultural Resources Inventory of Ricky's Acres, a Proposed Vehicle Test Site, North Cibola Range, U.S. Army Yuma Proving Ground, Arizona	SRI
124	Vanderpot, Rein, and Koral Ahmet	2003	Ancient Hunters of the Red Bluff Mountain Range: A Class III Cultural Resources Survey of 5,434 Acres on the Kofa Firing Range, U.S. Army Yuma Proving Ground, Arizona	SRI
125	Tierra Environmental Services	2001	Native American Consultation Plan for U.S. Army Yuma Proving Ground, Yuma, Arizona	TES
126	Hart, David R.	2004	Letter report: Cryofracture facility 0.1 Acre Survey on the Kofa Firing Range	NRI
127	Schaefer, Jerry, and Ken Moslak	2004	A Cultural Resources Survey of Selected Parcels on the North Cibola Range, Yuma Proving Ground, Arizona	ASM
128	Hart, David R.	2004	Cultural Resources Survey of 1,344 Acres in the North Cibola Range of United States Army Yuma Proving Ground, Yuma and La Paz Counties, Arizona	NRI

Report # YPG-R-	Author	Date	Title	Organization
129	Hall, Susan D.	2004	Cultural Resources Survey Along McAllister Wash on the Yuma Proving Ground, La Paz County, Arizona	DAI
130	Hall, Susan D.	2004	Cultural Resources Survey of the Corral Drop Zone on the Yuma Proving Ground, La Paz County, Arizona	DAI
131	Stone, Bradford W., and Thomas G. Wright	2004	A Class III Cultural Resources Survey of the Proposed Gould Wash and Kofa 1 Fiber Optics Cable Links on the U.S. Army Yuma Proving Ground, Northeast of Yuma, Yuma County, Arizona	ARS
132	Breen, Judith	2005	A Cultural Resources Survey of 1,016 Acres for the Airborne Detection Range, Yuma Proving Ground, Yuma County, Arizona	LSD
133	Hart, David R.	2005	Cultural Resources Inventory for a Fiber Optic Line on the United States Army Yuma Proving Ground, Yuma County, Arizona	NRI
134	Hart, David R.	2005	Cultural Resources Survey of 130 Acres for the JERC Site Complex in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	NRI
135	James, Karla	2006	Cultural Resources Survey of 2.5 Acres for the Proposed Expansion of the Gun Pad 3835Z on the Kofa Range of the United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
136	Hopkins, Maren	2006	Cultural Resources Survey of 2,346 Acres for the JERC II Project in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	NRI
137	James, Karla	2006	Cultural Resources Survey of 15 Acres for the JERC Bypass Road in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
138	James, Karla	2006	Cultural Resources Survey of 10 Acres for a Proposed Powerline and Access Road at Gauna Peak in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
139	James, Karla	2006	Cultural Resources Survey of the North and South Turnarounds for the Proposed JERC North Course Road in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
140	Hopkins, Maren	2006	Cultural Resources Survey of the Proposed JERC North Course in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	NRI
141	James, Karla	2006	Cultural Resources Survey of the Proposed Grenade Range and Access Road in the Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
142	James, Karla	2006	Cultural Resources Survey of the Proposed PAL Parking Area at the Main Administrative Area of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
143	Hopkins, Maren	2006	Cultural Resources Survey of 235 Acres for the Proposed Cibola Dust Course in the Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	NRI
144	James, Karla	2006	Cultural Resources Survey of Two Acres for the Proposed Firing Front 2 Access Road in the Kofa Firing Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
145	James, Karla	2006	Cultural Resources Survey of Six Acres for the Proposed Expansion of S-15 in the KOFA Firing Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
146	James, Karla	2006	Class I Literature Review of 58.5 Acres for the Proposed Laguna Runway Extension in the Laguna Army Airfield of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG

Report # YPG-R-	Author	Date	Title	Organization
147	James, Karla	2006	Cultural Resources Survey of 46.5 Acres for the Proposed Upgrades to Four Wildlife Water Tanks in the Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
148	James, Karla	2006	Cultural Resources Survey of 4,600 Linear Meters for the Proposed Heliport to Aerostat Water Pipeline in the South Cibola Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
149	Dore, Christopher D., and Stephen A. McElroy	2006	Automated Trail Identification and Mapping: An Experiment in Archaeological Spectral-Image Analysis using Commercial High-Resolution Satellite Remote-Sensing Data	SRI
150	Lashlee, J. David, Frederick Briuer, William Murphy, and Eric V. McDonald	1999	Geospatial Distribution of Cultural Resources in the Combat Systems Maneuver Area, U.S. Army Yuma Proving Ground	WES, DRI
151	Dobschuetz, Kris, and Gina S. Gage	2006	A Cultural Resource Survey for the Proposed Palo Verde to North Gila 500kV Line Conductor Maintenance Project, Yuma and Maricopa Counties, Arizona	EPG
152	Barr, David M.R., and India S. Hesse	2006	A Cultural Resources Survey of Wildlife Water Catchment #806 on the U.S. Army Yuma Proving Ground, Yuma County, Arizona	SWCA
153	Walsh, Mary-Ellen	2006	A Cultural Resources Survey of 441 Acres for the Proposed Expansion of the Kofa Dust Course, Yuma Proving Ground, Yuma County, Arizona	LSD
154	James, Karla	2006	Cultural Resources Survey of Eleven Acres for the Proposed Excaliber Berms in the Kofa Firing Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
155	James, Karla	2006	Cultural Resources Survey of 2.4 Miles for the Proposed Aerostat Water Pipeline in the South Cibola Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
156	James, Karla	2006	Cultural Resources Survey of 22.7 Acres for the Proposed OP66 to VTM Range Fiber Optic Cable in the Kofa Firing Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
157	Gage, Gina S.	2002	Cultural Resources Survey of Six Segments of Arizona Public Service Company's Palo Verde to North Gila 500kV Transmission Line, Maricopa and Yuma Counties, Arizona	ACS
158	Hopkins, Maren	2006	Cultural Resources Survey of 1,134 Acres for the Proposed Excalibur Limited User Test Program Located in the East Arm of the Kofa Range of United States Army Yuma Proving Ground, Yuma County, Arizona	NRI
159	James, Karla	2007	Cultural Resources Survey of 35 Acres for the Proposed Test Hole Borings at Army's Hot Weather Test Complex in the South Cibola Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
160	James, Karla	2007	Cultural Resources Survey of 117 Additional Acres for the Proposed Hot Weather Test Complex in the South Cibola Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
161	McDonald, Meg	2007	Cultural Resources Survey of 0.75 Acres for the Proposed Rock Ledge Climb in the Cibola Range, United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
162	Duff, Gabrielle, and Edgar K. Huber	2002	Travel and Procurement along the Castle Dome Plain: A Class III Cultural Resources Inventory and Evaluation of the Proposed Combat Systems Maneuver Area, Kofa Firing Range, Yuma Proving Ground, Arizona	SRI



Report # YPG-R-	Author	Date	Title	Organization
163	James, Karla	2007	Cultural Resources Survey of 94 Acres for Additional Test Areas Straddling the JERC North Course Road in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
164	James, Karla	2007	Cultural Resources Survey of Approximately 50 Acres for the Proposed Location of a Fiber Optic Line in the South Cibola Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
165	James, Karla	2007	Letter report: USAG YPG proposes to replace deteriorating power poles located at Contraves J in the Kofa Firing Range	YPG
166	Nickens, Paul R.	2004	Finding of No Affect on Historic Properties-- Environmental Baseline Survey Utility Privatization, U.S. Army Yuma Proving Ground	JAC
167	James, Karla	2007	Class I Literature Review of 28 Acres for the Proposed Yuma Wash ECUT Test Track in the Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
168	Saunders, Daniel M.	1996	Results of Reconnaissance Survey for Sign Placement at White Tanks Conservation Area	ETC
169	James, Karla	2007	Cultural Resources Survey of 5 Acres for the Proposed op64 Ammunition Storage Pad and Access Road in the Kofa Firing Range of United States Army Yuma Proving Ground, Yuma County, Arizona	YPG
170	Hopkins, Maren, and Christina M. Carpenter	2007	Cultural Resources Survey of 3,032 Acres in Two Separate Locations of the Hot Weather Test Complex for the Army Test Tracks, Cibola and Kofa Ranges of the United States Army Yuma Proving Ground, Yuma County, Arizona	NRI
171	James, Karla	2007	Letter report: USAG YPG proposes to build a Special Operation Forces Free Fall Simulator Facility	YPG
172	James, Karla	2007	Cultural Resources Survey of 13 Acres for the Proposed Expansion of the Site 8 Unmanned Aerial Vehicle Complex in the Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
173	DeChambre, David J., and Maren Hopkins	2007	Cultural Resources Survey of 16.6 Miles of Proposed Roads, Cibola Range of the United States Army Yuma Proving Ground, La Paz and Yuma Counties, Arizona	NRI
174	Bentley, Mark T.	1996	Cultural Resource Survey Report for the Dynamometer Course Road Addition	GPI
175	Carpenter, Christina M.	2007	Cultural Resources Survey of 1,486 Acres for Proposed Engineering Test Sites in Four Separate Locations in the Cibola and Kofa Ranges of the United States Army Yuma Proving Ground, Yuma and La Paz Counties, Arizona	NRI
176	Dosh, Steven G., and Christina M. Carpenter	2007	Cultural Resources Survey of 949 Acres within La Posa Drop Zone Proposed De-Brushing Area, North Cibola Range, U.S. Army Yuma Proving Ground, La Paz County, Arizona	NRI
177	James, Karla	2007	Cultural Resources Survey of 76 Acres for the Proposed Electromagnetic Environment (EME) Pad, Road, and Use Area in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
178	Carpenter, Tina	2009	Cultural Resources Survey of 1,564 Acres for a Proposed Engineering Test Site and Fiber Optic Line in Lands Administered by the Bureau of Land Management and in the Cibola Range of the United States Army Yuma Proving Ground, Yuma and La Paz Counties, Arizona	NRI
179	Carpenter, Christina M., and Steven G. Dosh	2007	Cultural Resources Survey of 1,747 Acres for the Proposed Ironwood Drop Zone, Cibola Range, U.S. Army Yuma Proving Ground, La Paz County, Arizona	NRI

Report # YPG-R-	Author	Date	Title	Organization
180	Rowe, Robert A.	2007	A Cultural Resource Survey for the Palo Verde Hub to North Gila Substation 500kV Transmission Project, Maricopa and Yuma Counties, Arizona	
181	Altschul, Jeffrey H. (editor), with contributions by Jeffrey H. Altschul, Christopher D. Dore, Clay Mathers, and Chris M. Rohe	2007	On the Path, Predictive Models of the Archaeological Record of Travel, Yuma Proving Ground, Arizona	SRI
182	James, Karla	2008	Archaeological Survey of 15 Acres in Response to Inadvertent Site Damage at Hogan's Road, Cibola Range, United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
183	Dosh, Steven G.	2008	Cultural Resources Survey of Approximately 17 Miles Along Ehrenberg-Cibola Road for the Desert Storm Rally, Bureau of Land Management, Yuma Field Office, and U.S. Army Yuma Proving Ground, La Paz County, Arizona	NRI
184	James, Karla	2008	Archaeological Survey of 68 Acres for the Proposed Tombstone Test Track in the North Cibola Range of United States Army Yuma Proving Ground, La Paz County, Arizona	YPG
185	James, Karla	2008	Archaeological Survey of Eight Acres for Three Proposed Wildlife Watering Tanks on the North Cibola Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
186	James, Karla	2008	Archaeological Survey of 52 Acres for the Proposed Kinetic Tracking Mount, Targets, and Access Roads and Trails on Bureau of Land Management and U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
187	Carpenter, Christina M., and Steven G. Dosh	2007	Cultural Resources Survey of 3,994 Acres in the Airborne Detection Range on the Kofa Firing Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
188	Aguila, Lourdes & Suzanne Derosa	2008	Class I Literature Review of US 95, Mileposts 42 to 83, Yuma and La Paz Counties, Arizona	
189	Dosh, Steven G.	2008	Archaeological Survey of 2,270 Acres for the Proposed Hot Weather Test Complex Army Performance Test Facilities (Area D) on the South Cibola Range U.S. Army Yuma Proving Ground Yuma County, Arizona	NRI
190	Dosh, Steven G.	2008	Archaeological Survey of 3,583 Acres West of Firing Front Road on the Kofa Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	NRI
191	JRP Historical	2009	Architectural Historic Property Inventory, U.S. Army Garrison Yuma Proving Ground, Yuma County, Arizona	JRP
192	Trafzer, Clifford E.	2010	Historic Property Inventory, Traditional Cultural Properties: Yavapai-Prescott Cultural Ethnography of Lands	UCR
193	James, Karla	2008	Archaeological Survey of 59.25 Acres for the Proposed Relocation of a Portion of the Desert March Course on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona	YPG
194	James, Karla	2009	Archaeological Survey of 260 Acres Along Cibola Lake Road for the 2009 Desert Storm Road Rally on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona	YPG
195	James, Karla	2009	Archaeological Survey of 36.75 Acres for a Proposed Test Track on the Kofa Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG

Report # YPG-R-	Author	Date	Title	Organization
196	McDonald, Meg	2009	Letter report: USAG YPG proposes to designate an area for all-terrain vehicle use to enhance the quality of life for soldiers, their families, and residents on the installation	YPG
197	James, Karla	2009	Archaeological Survey of 29 Acres for a Proposed New Canine Village on the Cibola Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
198	James, Karla	2009	Archaeological Survey of 200 Acres for the Proposed Joint Test Tunnel Range on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona	YPG
200	James, Karla	2009	Archaeological Survey of 17.6 Acres for the Proposed Expansion of the Joint Experimental Range Complex One (JERC 1) Mission Control Compound on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona	YPG
201	James, Karla	2009	Archaeological Survey of 112.5 Acres for the Proposed Simulated Village at the Joint Experimental Range Complex Three (JERC 3) on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona	YPG
202	James, Karla	2009	Archaeological Survey of 19 Acres for the Proposed Expansion of the Kofa Firing Range (KFR) Sewage Lagoon on the Kofa Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
203	Ashworth, Kenneth A.	1992	Cultural Resource Survey and Assessment of Three Proposed Water-hole Projects	YPG
204	McDonald, Meg	2009	Letter report for proposed Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for two inactive historic-period landfills at USAG YPG	YPG
205	James, Karla	2009	Archaeological Survey of 166.8 acres for a Proposed Remote Control Test Track South of Aberdeen Road on the Kofa Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
206	James, Karla	2009	Archaeological Survey of 50 acres for the Proposed Construction of an Airship Shelter and Mooring Pads at Comanche Flats on the Cibola Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
207	McDonald, Meg	2009	Letter report: USAG YPG proposes to construct expanded IED test environment including emplacement of 14 remote solar-powered equipment stations	YPG
208	McDonald, Meg	2009	Letter report: USAG YPG intends to conduct digital geophysical mapping and excavations during a remedial investigation of a 625-acre former mortar impact area known as site YPG-002	YPG
209	Wilcox, Scott, and Christopher Rayle	2010	A Class III Cultural Resource Survey of Approximately 5,860 Acres of the Joint Experimental Range Complex (JERC) 1 and 3, U.S. Army Yuma Proving Ground, La Paz and Yuma Counties, Arizona	ACS
210	Wilcox, Scott, and Christopher Rayle	2010	A Class III Cultural Resource Survey of Approximately 3,094 Acres of the Airborne Detection Range on the Kofa Firing Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	ACS
211	Wilcox, Scott, and Christopher Rayle	2010	A Class III Cultural Resource Survey of Approximately 2,317 Acres of the Unmanned Aerial Systems Complex, U.S. Army Yuma Proving Ground, Yuma County, Arizona	ACS
212	Wilcox, Scott, and Christopher Rayle	2010	A Class III Cultural Resource Survey of Approximately 1,797 Acres of the Excalibur Complex, U.S. Army Yuma Proving Ground, Yuma County, Arizona	ACS

Report # YPG-R-	Author	Date	Title	Organization
213	Rayle, Christopher, and Scott Wilcox	2010	A Class III Cultural Resource Survey of Approximately 1,433 Acres of the Military Training Area on the South Cibola Range, U.S. Army Yuma Proving Ground, Yuma County, Arizona	ACS
214	McDonald, Meg	2010	Letter report: 2010 and Future Desert Storm Road Rallies using Cibola Lake and Ehrenberg Roads.	YPG
215	James, Karla	2010	Archaeological Survey of 30.4 Acres for the Proposed Construction of Two New Gun Positions on the North Cibola Range of U.S. Army Yuma Proving Ground, La Paz County, Arizona.	YPG
216	McDonald, Meg	2010	Class I Literature Review for the Proposed New and Expanded Impact Areas in the Kofa Region of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
217	James, Karla	2010	Archaeological Survey of 100 Acres for the Proposed Airship Mooring Pad at the Joint Experimental Range Complex One (JERC 1) on the North Cibola Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
218	James, Karla	2010	Archaeological Survey of Seven Acres for the Proposed New Water Treatment Facility at the Mobility Test Area of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
219	James, Karla	2010	Archaeological Survey of 44 Acres in Training Area Bravo on the Cibola Range of U.S. Army Yuma Proving Ground, Yuma County, Arizona	YPG
220	Eakin, Joanne	2010	Archaeological Site Monitoring at White Tanks Management Area	ZIA
221	McDonald, Meg	2010	Letter report: USAG YPG proposes to construct a new access control point (ACP) on Ocotillo Road for the Yuma Test Center (YTC).	YPG
222	Brown, Victoria T.	2010	Historic Building Inventory Survey, Building 6003	ZIA
224	Becker, Kenneth M., and Jeffrey H. Altschul, with a contribution by Christopher D. Dore	2003	Historic Context for Prehistoric and Protohistoric Trails and Related Features at Yuma Proving Ground, Arizona	SRI
229	Brenner, William	1984	Historic American Engineering Record, Yuma Proving Ground, AZ-5	BTI

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## **APPENDIX I**

### **U.S. Army Yuma Proving Ground Recorded Archaeological Sites**

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## U.S. Army Yuma Proving Ground Recorded Archaeological Sites

Site list current through December 2010

NR (National Register determination): E = eligible; NE = not eligible; U = undetermined; if the code is bold and italic, the AZ SHPO has concurred with the determination

Age: P = prehistoric; H = historic; H/P = historic and prehistoric; M = modern; U = unknown or undetermined

Landform: AF = alluvial fan; AP = alluvial plain; AT = alluvial terrace; AW = active wash; BD = badland; DU = dune; IN = inselberg; MH = mountain highlands; MX = mixed, PD = pediment

Landform Age: Br = bedrock surface; Qf0 = oldest alluvial fan; Qf1 = second oldest alluvial fan; Qf2 = third oldest alluvial fan; Qf3 = youngest alluvial fan; Qf4 = alluvial terrace; Qf5 = active wash; Qpl = alluvial plain; QTP = pediment; QTb = badland

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0001	AZ 050-496	1	U	M	Historic teepee			AF	Qf1
0002	AZ Y:1:3(ASM)	3	<i>E</i>	P	Lithic scatter			AF	Qf2
0003	AZ Y:1:5(ASM)	3	<i>E</i>	P	Lithic scatter			AW	Qf5
0005	AZ R:15:1(ASM)	7, 11	<i>E</i>	P	Cleared areas	Rock ring	Lithic/ceramic scatter	AF	Qf2
0006	AZ R:15:2(ASM)	7, 11	<i>E</i>	P	Trail segment			AW	Qf5
0007	AZ R:15:3(ASM)	7, 11	<i>E</i>	P	Trail segment			AF	Qf2
0008	AZ R:15:4(ASM)	7, 11	<i>E</i>	P	Trail segment			AF	Qf2
0009	AZ R:15:5(ASM)	7, 11	<i>E</i>	P	Trail segment			AW	Qf5
0010	AZ X:3:43(ASM)	9	NE	P	Lithic scatter			AP	Qpl
0015	AZ R:11:2(ASM)	10	<i>E</i>	P	Quarry			IN	Br
0016	AZ R:11:3(ASM)	10	<i>E</i>	P	Lithic scatter			AP	Qpl
0017	AZ R:11:4(ASM)	10	<i>E</i>	P	Lithic scatter			AP	Qpl
0018	AZ R:11:5(ASM)	10	<i>E</i>	P	Lithic scatter			AP	Qpl
0019	AZ R:11:6(ASM)	10	<i>E</i>	P	Lithic scatter			AP	Qpl
0020	AZ R:11:7(ASM)	10	<i>E</i>	P	Lithic scatter			AF	Qf1
0021	AZ R:11:8(ASM)	10	<i>E</i>	P	Lithic scatter			AP	Qpl
0022	AZ R:15:6(ASM)	11	<i>E</i>	P	Trail segment	Cleared area	Lithic scatter	AF	Qf2
0023	AZ R:15:7(ASM)	11	<i>E</i>	P	Trail segment			AW	Qf5
0024	AZ R:10:1114(BLM)	13	U	H/P	Rockshelter			AF	Qf1
0025	AZ 050-1115	13	U	P	Rockshelters	Milling station	Trail segment	MH	Br
0026	AZ 050-896	13	U	P	Rockshelters w/ cultural	Lithic/ceramic scatter		MH	Br



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
					midden				
0027	AZ 050-897	13, 194	U	P	Cleared areas/rock rings	Lithic scatter		MH	Br
0028	AZ 050-898	13	U	P	Cleared areas/rock rings			AF	Qf2
0029	AZ 050-899	13	U	P	Cleared areas	Lithic scatter		MH	Br
0030	AZ 050-900	13, 113	U	P	Rockshelter/cave	Lithic scatter	Ceramic scatter	MH	Br
0031	AZ 050-901	13, 113	U	P	Rock ring, cleared area	Lithic scatter	Ceramic scatter	AF	Qf2
0032	AZ 050-902	13	U	P	Rock ring	Lithic scatter		AW	Qf5
0033	AZ 050-904	13	U	P	Rock ring, cleared area	Lithic scatter		AF	Qf2
0034	AZ 050-905	13	U	P	Rock ring			AF	Qf2
0036	AZ 050-907	13	U	P	Rock ring	Lithic scatter		AF	Qf2
0037	AZ R:11:908(BLM)	13	U	P	Rock ring	Lithic scatter		MH	Br
0038	AZ R:11:909(BLM)	13	U	P	Rock ring	Lithic scatter	Ceramic scatter	AF	Qf2
0039	AZ 050-911	13	U	P	Rock ring	Lithic scatter		AF	Qf1
0040	AZ R:11:90(ASM)	13, 113	U	H/P	Rockshelter	Rock ring/trail	Lithic scatter	AF	Qf1
0041	AZ 050-1474	13	U	P	Quarry	Lithic scatter		AF	Qf1
0042	AZ 050-1187	13, 194	U	H/P	Corral	Rock ring		AF	Qf1
0043	AZ 050-1194	13	U	P	Rockshelter/cave	Lithic scatter	Ceramic scatter	MH	Br
0044	AZ 050-1195	13	U	P	Quarry	Rockshelter	Lithic scatter	MH	Br
0045	AZ 050-1197	13	NE	P	Lithic scatter			AF	Qf1
0046	AZ 050-1198	13	NE	P	Lithic scatter	Ceramic scatter		MH	Br
0047	AZ 050-1268	13	U	P	Rockshelter	Lithic scatter		MH	Br
0048	AZ 050-1269	13	U	H	Mineshafts			AF	Qf3
0049	AZ 050-1262	13	NE	P	Lithic scatter			AF	Qf2
0050	AZ 050-1132	13	U	P	Trail segment	Cleared areas	Lithic scatter	AF	Qf1
0051	AZ 050-1201	13	E	P	Lithic scatter			AF	Qf2
0052	AZ 050-1271	13	NE	P	Milling station			AP	Qpl
0053	AZ R:11:9(ASM)	14, 36	NE	P	Lithic scatter			AP	Qpl
0054	AZ R:11:10(ASM)	14, 32, 36	NE	P	Milling station			AP	Qpl
0055	AZ R:11:11(ASM)	14, 32, 36	NE	P	Milling station	Lithic scatter	Ceramic scatter	AP	Qpl
0056	AZ R:11:12(ASM)	14, 32, 36	NE	P	Milling station	Ceramic scatter		AP	Qpl
0057	AZ R:11:13(ASM)	14, 36, 41	U	P	Milling station			AP	Qpl
0058	AZ R:11:14(ASM)	14, 36, 41, 43	NE	P	Lithic scatter	Ceramic scatter		AF	Qf3
0059	AZ R:11:15(ASM)	14, 36, 41, 43	NE	H	Possible historic graves	Cobble mounds	Historic can/trash scatter	AF	Qf3
0060	AZ R:15:8(ASM)	16	U	P	Rock ring			MH	Br
0061	AZ R:15:9(ASM)	16	U	P	Rock ring	Trail segment	Lithic scatter	MH	Br

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0062	AZ R:15:10(ASM)	16	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf2
0063	AZ R:15:11(ASM)	16	U	P	Rock ring	Cleared areas	Lithic scatter	AF	Qf1
0064	AZ R:15:12(ASM)	16	U	P	Lithic scatter			AF	Qf2
0065	AZ R:15:13(ASM)	16	U	P	Rock ring	Lithic scatter		AF	Qf1
0066	AZ R:15:14(ASM)	16	U	P	Rock ring	Lithic scatter		AF	Qf1
0067	AZ R:15:15(ASM)	16	U	P	Rock ring, rock cluster	Trail segment	Lithic/ceramic scatter	AF	Qf2
0068	AZ R:15:16(ASM)	16	U	P	Lithic scatter			AF	Qf2
0069	AZ R:15:17(ASM)	16	U	P	Trail	Lithic scatter		AF	Qf2
0070	AZ R:15:18(ASM)	16	U	P	Lithic scatter			AW	Qf5
0071	AZ R:15:19(ASM)	16	U	P	Cleared area, rock ring	Trail segment	Lithic/ceramic scatter	AF	Qf2
0072	AZ R:15:20(ASM)	16	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf2
0073	AZ R:15:21(ASM)	16	U	P	Cleared area	Trail segment	Lithic scatter	AF	Qf2
0074	AZ X:3:44(ASM)	16	U	P	Trail	Cleared area		AF	Qf2
0075	AZ X:3:45(ASM)	16	U	P	Trail			AF	Qf2
0076	AZ X:4:3(ASM)	17	NE	P	Trail			AF	Qf2
0077	AZ X:4:4(ASM)	17	NE	P	Lithic scatter			PD	QTP
0078	AZ X:4:5(ASM)	17	E	P	Quarry			PD	QTP
0079	AZ X:4:6(ASM)	17	NE	P	Lithic scatter			AF	Qf1
0080	AZ X:4:7(ASM)	17	NE	P	Lithic scatter			AF	Qf1
0081	AZ X:4:8(ASM)	17	NE	P	Lithic scatter			AF	Qf1
0082	AZ X:4:9(ASM)	17	NE	P	Lithic scatter			AF	Qf1
0083	AZ X:4:10(ASM)	17	NE	P	Rock ring			AF	Qf1
0084	AZ X:4:11(ASM)	17	NE	P	Rock ring	Lithic scatter		PD	QTP
0085	AZ X:4:12(ASM)	17	NE	P	Lithic scatter			PD	QTP
0086	AZ X:4:13(ASM)	17	NE	P	Lithic scatter			MH	Br
0087	AZ X:4:14(ASM)	17	NE	P	Rock enclosure & alignment	Trail segment	Lithic scatter	MH	Br
0088	AZ X:4:15(ASM)	17	NE	P	Lithic scatter			MH	Br
0089	AZ X:4:16(ASM)	17	NE	P	Lithic scatter			MH	Br
0090	AZ X:4:17(ASM)	17	E	P	Quarry			MH	Br
0091	AZ X:4:18(ASM)	17	E	P	Milling station	Trail		MH	Br
0092	AZ X:4:19(ASM)	17	NE	P	Lithic scatter	Trail		MH	Br
0093	AZ X:4:20(ASM)	17	E	P	Milling station	Lithic scatter	Cleared area	PD	QTP
0094	AZ X:4:21(ASM)	17	E	P	Ceramic scatter			AF	Qf1
0095	AZ X:3:46(ASM)	17	NE	P	Cleared areas			AF	Qf2
0096	AZ X:3:47(ASM)	17	NE	H	Rock cairn			AF	Qf2
0097	AZ X:3:48(ASM)	17	NE	P	Trail			AW	Qf5
0099	AZ R:11:16(ASM)	27	<b>E</b>	P	Quarry	Lithic scatter		MH	Br
0100	AZ R:7:94(ASM)	33	E	P	Trail segment	Ceramic scatter		MH	Br
0101	AZ R:7:93(ASM)	33	NE	P	Rock ring	Trail segment		MH	Br
0102	AZ R:7:89(ASM)	33	NE	P	Cleared areas			MH	Br
0103	AZ R:7:90(ASM)	33	E	P	Rock ring	Lithic/ceramic scatter		MH	Br

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0104	AZ R:7:92(ASM)	33	U	H	Copper Giant Mine	Chimney & head frame	Historic trash scatter	AW	Qf5
0105	AZ R:7:95(ASM)	33	NE	P	Rock ring			MH	Br
0106	AZ R:7:96(ASM)	33	NE	P	Rock ring			MH	Br
0107	AZ R:7:97(ASM)	33	U	P	Ceramic scatter	Lithic scatter		AF	Qf2
0108	AZ R:7:101(ASM)	33	E	P	Rock ring, cairns	Lithic/ceramic scatter	Trail segment	AF	Qf2
0109	AZ R:11:18(ASM)	33	NE	P	Rock ring			AW	Qf5
0110	AZ R:11:20(ASM)	33	NE	P	Rock ring			AF	Qf2
0111	AZ R:10:35(ASM)	33	NE	P	Lithic scatter			AF	Qf0
0112	AZ R:11:22(ASM)	33	NE	P	Rock ring			AW	Qf5
0113	AZ R:11:24(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0114	AZ R:7:88(ASM)	33	NE	P	Cleared areas			MH	Br
0115	AZ R:7:91(ASM)	33	E	P	Petroglyph	Rock ring	Lithic/ceramic scatter	MH	Br
0116	AZ R:7:99(ASM)	33	NE	P	Cleared areas	Rock clusters		AF	Qf2
0117	AZ R:11:17(ASM)	33	E	P	Lithic scatter			AF	Qf2
0118	AZ R:7:98(ASM)	33	NE	P	Rock ring			AF	Qf2
0119	AZ R:11:25(ASM)	33	NE	P	Rock ring			AF	Qf2
0120	AZ R:11:27(ASM)	33	E	P	Geoglyph	Lithic artifacts		AF	Qf2
0121	AZ R:11:29(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0122	AZ R:10:38(ASM)	33	E	P	Lithic scatter			AF	Qf2
0123	AZ R:10:40(ASM)	33	E	P	Lithic scatter			AF	Qf2
0124	AZ R:10:42(ASM)	33	E	P	Lithic scatter			AW	Qf5
0125	AZ R:10:44(ASM)	33	NE	P	Cleared area			AF	Qf2
0126	AZ R:11:32(ASM)	33	E	P	Rockshelters	Rock rings	Lithic scatter	MH	Br
0127	AZ R:11:31(ASM)	33	E	P	Milling station	Lithic/ceramic scatter	Possible roasting pit	AP	Qpl
0128	AZ R:11:19(ASM)	33	E	P	Lithic scatter	Quarry		AF	Qf1
0129	AZ R:7:100(ASM)	33	U	P	Lithic scatter	Fire-affected rock cluster		DU	Qd
0130	AZ R:11:21(ASM)	33	NE	P	Rock ring			AF	Qf2
0131	AZ R:10:36(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0132	AZ R:11:23(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0133	AZ R:10:37(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0134	AZ R:11:26(ASM)	33	NE	P	Cleared area			AF	Qf1
0135	AZ R:11:28(ASM)	33	E	P	Lithic scatter			AF	Qf2
0136	AZ R:11:30(ASM)	33	NE	P	Lithic scatter			AF	Qf1
0137	AZ R:10:39(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0138	AZ R:10:41(ASM)	33	NE	P	Cleared area			AF	Qf2
0139	AZ R:10:43(ASM)	33	NE	P	Lithic scatter			AF	Qf2
0140	AZ R:7:102(ASM)	33	E	P	Rockshelter	Milling station	Lithic scatter	AF	Qf1
0141	AZ 050-1242	37	U	P	Trail segment			AF	Qf2
0142	AZ 050-1243	37	U	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0143	AZ R:11:34(ASM)	39	NE	P	Lithic scatter			AF	Qf2
0144	AZ R:11:33(ASM)	39	E	P	Lithic scatter			AF	Qf2
0145	AZ R:11:35(ASM)	41	NE	H	Historic camp	Cleared areas	Can scatter	AP	Qpl
0147	AZ X:4:22(ASM)	48	NE	P	Cleared area			AF	Qf2
0148	AZ X:4:23(ASM)	48	NE	P	Cleared area			AW	Qf5
0149	AZ X:4:24(ASM)	48	NE	P	Cleared area	Rock cluster (small)	Lithic scatter	AF	Qf1
0150	AZ X:4:25(ASM)	48	NE	P	Trail segments	Rock ring, rock cairn	Lithic scatter	AF	Qf2
0151	AZ X:4:26(ASM)	48	NE	P	Cleared area	Trail segment		AW	Qf5
0152	AZ X:4:27(ASM)	48	NE	P	Cleared area			AF	Qf2
0153	AZ X:4:28(ASM)	48	NE	P	Cleared area			AF	Qf2
0154	AZ X:4:29(ASM)	48	NE	P	Rock ring	Trail segment		AF	Qf2
0155	AZ X:4:30(ASM)	48	NE	P	Cleared area, rock ring	Lithic scatter	Trail segment	AF	Qf2
0156	AZ X:4:31(ASM)	48	NE	P	Cleared area, rock ring	Trail segment	Lithic scatter	AF	Qf3
0157	AZ X:4:32(ASM)	48	NE	P	Cleared area	Lithic scatter	Trail segment	AF	Qf2
0158	AZ X:4:33(ASM)	48	NE	P	Cleared area			AF	Qf1
0160	AZ X:4:66(ASM)	49, 50	E	P	Cleared area	Ceramic scatter		AF	Qf2
0161	AZ X:4:46(ASM)	49, 50	E	P	Rock ring	Rock clusters	Lithic scatter	AF	Qf1
0162	AZ X:4:47(ASM)	49, 50	E	P	Cleared area	Rock rings, rock clusters	Lithic scatter	AF	Qf1
0163	AZ X:4:50(ASM)	49, 50	E	P	Cleared area	Rock ring		AF	Qf2
0164	AZ X:4:52(ASM)	49, 50	E	P	Cleared areas	Lithic/ceramic scatter	Trail segment	AF	Qf2
0165	AZ X:4:53(ASM)	49, 50	E	P	Cleared area, compressed gravel area	Rock cluster	Lithic scatter	AF	Qf2
0166	AZ X:4:54(ASM)	49, 50	E	P	Cleared area	Lithic scatter		AF	Qf2
0167	AZ X:4:55(ASM)	49, 50	E	P	Cleared area	Lithic scatter		AF	Qf2
0168	AZ X:4:56(ASM)	49, 50	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0169	AZ X:4:57(ASM)	49, 50	E	P	Cleared areas	Lithic/ceramic scatter		AF	Qf2
0170	AZ X:4:58(ASM)	49, 50	E	P	Cleared area			AF	Qf2
0171	AZ X:4:59(ASM)	49, 50	E	P	Rock rings			PD	QTP
0181	AZ X:4:48(ASM)	50	E	P	Cleared area	Lithic scatter		AF	Qf1
0182	AZ X:4:49(ASM)	50	E	P	Cleared area	Rock cluster	Lithic scatter	AF	Qf2
0183	AZ X:4:51(ASM)	50	E	P	Cleared area	Lithic scatter		AF	Qf2
0212	AZ 050-1202	50	E	P	Cleared areas			AF	Qf2
0213	AZ 050-1204	50	E	P	Lithic scatter			AF	Qf1
0214	AZ 050-1205	50	E	P	Rock ring	Lithic scatter (small)		AF	Qf1
0242	AZ X:4:63(ASM)	50	E	P	Rock clusters			AF	Qf3
0243	AZ X:4:65(ASM)	50	E	P	Rock ring, rock cluster	Cleared areas		AF	Qf2
0247	AZ X:4:67(ASM)	50	E	P	Cleared area			AF	Qf2
0248	AZ X:4:68(ASM)	50	E	P	Cleared area			AF	Qf2
0299	AZ X:3:108(ASM)	50	E	P	Cleared area			AF	Qf2
0300	AZ X:3:109(ASM)	50	E	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0303	AZ S:14:56(ASM)	51	U	P	Lithic scatter			AF	Qf1
0306	AZ X:3:86(ASM)	53	NE	H	Historic trash scatter			AW	Qf5
0313	AZ R:15:82(ASM)	54	E	P	Rock ring	Lithic scatter		AW	Qf5
0314	AZ R:15:83(ASM)	54	E	H	Military foxhole			AF	Qf1
0315	AZ R:15:84(ASM)	54	E	H	Cleared areas - historic tent camp			AF	Qf2
0318	AZ X:3:49(ASM)	54,105, 111,118	NE	H	Military rock alignments, berms, other features	Possible water/erosion control structures	Historic artifact scatter	AW	Qf5
0322	AZ S:14:10(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0323	AZ S:14:11(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0324	AZ S:14:12(ASM)	56	<i>E</i>	P	Cleared area	Lithic scatter		MH	Br
0325	AZ S:14:13(ASM)	56	<i>E</i>	P	Lithic scatter			AF	Qf3
0326	AZ S:14:14(ASM)	56	<i>E</i>	P	Lithic scatter			AF	Qf3
0327	AZ S:14:15(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0328	AZ S:14:16(ASM)	56	<i>E</i>	P	Quarry			MH	Br
0329	AZ S:14:17(ASM)	56	<i>E</i>	P	Quarry			MH	Br
0330	AZ S:14:18(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0331	AZ S:14:19(ASM)	56	<i>E</i>	P	Rockshelter	Lithic scatter	Milling station	MH	Br
0332	AZ S:14:20(ASM)	56	<i>E</i>	P	Lithic scatter			AF	Qf3
0333	AZ S:14:21(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0334	AZ S:14:22(ASM)	56	<i>E</i>	P	Lithic scatter			AF	Qf3
0335	AZ S:14:23(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0336	AZ S:14:24(ASM)	56	<i>E</i>	P	Rock cluster/pile	Lithic scatter		MH	Br
0337	AZ S:14:25(ASM)	56	<i>E</i>	P	Rockshelter	Lithic scatter		MH	Br
0338	AZ S:14:26(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0339	AZ S:14:27(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0340	AZ S:14:28(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0341	AZ S:14:29(ASM)	56	<i>E</i>	P	Rockshelter	Lithic scatter		MH	Br
0342	AZ S:14:30(ASM)	56	<i>E</i>	P	Lithic scatter			AF	Qf3
0343	AZ S:14:31(ASM)	56	<i>E</i>	P	Rockshelter	Lithic/ceramic scatter		MH	Br
0344	AZ S:14:32(ASM)	56	<i>E</i>	P	Rock cairns	Lithic/ceramic scatter	Trail segment	MH	Br
0345	AZ S:14:33(ASM)	56	<i>E</i>	P	Rock alignment			MH	Br
0346	AZ S:14:34(ASM)	56	<i>E</i>	P	Quarry			MH	Br
0347	AZ S:14:35(ASM)	56	<i>E</i>	P	Quarry			MH	Br
0348	AZ S:14:36(ASM)	56	<i>E</i>	P	Lithic, ceramic scatter			MH	Br
0349	AZ S:14:37(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0350	AZ S:14:38(ASM)	56	<i>E</i>	P	Quarry			AF	Qf1
0351	AZ S:14:39(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0352	AZ S:14:40(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0353	AZ S:14:41(ASM)	56	<i>E</i>	P	Lithic scatter			MH	Br
0354	AZ S:14:42(ASM)	56	<i>E</i>	P	Rockshelter	Lithic scatter		MH	Br

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0355	AZ S:14:43(ASM)	56	E	P	Rockshelter	Lithic scatter		MH	Br
0356	AZ S:14:44(ASM)	56	E	P	Rockshelter	Lithic scatter		MH	Br
0357	AZ S:14:45(ASM)	56	E	P	Rockshelter	Lithic/ceramic scatter		MH	Br
0358	AZ S:14:46(ASM)	56	E	P	Rockshelter	Lithic/ceramic scatter		MH	Br
0359	AZ S:14:47(ASM)	56	E	P	Rockshelter	Lithic/ceramic scatter	Milling station	MH	Br
0360	AZ S:14:48(ASM)	56	E	P	Rockshelter	Lithic scatter		AW	Qf5
0361	AZ S:14:49(ASM)	56	E	P	Lithic, ceramic scatter			MH	Br
0362	AZ S:14:50(ASM)	56	E	P	Quarry			MH	Br
0363	AZ S:14:51(ASM)	56	E	P	Lithic scatter			MH	Br
0364	AZ S:14:52(ASM)	56	E	H	Historic Malcolm Rogers' camp complex			MH	Br
0365	AZ S:14:53(ASM)	56	E	P	Rock ring	Trail segment	Rock alignment	MH	Br
0366	AZ S:14:54(ASM)	56	E	P	Rock ring	Lithic/ceramic scatter		MH	Br
0367	AZ S:14:55(ASM)	56	E	P	Trail segment	Ceramic scatter		MH	Br
0368	AZ R:14:20(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf1
0369	AZ R:14:21(ASM)	57	E	P	Lithic scatter			AF	Qf1
0370	AZ R:14:22(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0371	AZ R:14:23(ASM)	57	E	P	Cleared area, compressed gravel area	Rock ring	Lithic scatter	AF	Qf2
0372	AZ R:14:24(ASM)	57	E	P	Cleared area	Rock ring		AF	Qf2e
0373	AZ R:14:25(ASM)	57	E	P	Cleared area	Rock ring		AF	Qf2e
0374	AZ R:14:26(ASM)	57	E	P	Cleared area			AF	Qf2
0375	AZ R:14:27(ASM)	57	E	P	Cleared area	Rock ring		AF	Qf2
0376	AZ R:14:28(ASM)	57	E	P	Cleared areas	Rock ring		AF	Qf2
0377	AZ R:14:29(ASM)	57	E	P	Rock ring	Cleared area	Petroglyph	IN	Br
0378	AZ R:14:30(ASM)	57	E	P	Rock ring, rock cluster, cleared area	Trail segment	Lithic scatter	AF	Qf2
0379	AZ R:14:31(ASM)	57	E	P	Cleared area	Rock ring	Rock cluster	AF	Qf2
0380	AZ R:14:32(ASM)	57	E	P	Cleared area	Rock cluster		AF	Qf3
0381	AZ R:14:33(ASM)	57	E	P	Cleared area	Trail segment	Lithic scatter	AF	Qf2
0382	AZ R:14:34(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0383	AZ R:14:35(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0384	AZ R:14:36(ASM)	57	E	P	Cleared areas	Trail segment	Lithic scatter	AF	Qf2
0385	AZ R:14:37(ASM)	57	E	P	Cleared areas	Rock ring	Lithic scatter	AF	Qf2
0386	AZ R:14:38(ASM)	57	E	P	Cleared areas	Rock ring, rock cluster	Lithic scatter	AF	Qf2
0387	AZ R:14:39(ASM)	57	E	P	Cairn, rock clusters, cleared areas	Trail segment	Lithic/ceramic scatter	AF	Qf2
0388	AZ R:14:40(ASM)	57	E	P	Cleared areas	Trail segment	Lithic/ceramic scatter	AF	Qf2
0389	AZ R:14:41(ASM)	57	E	P	Rock rings, rock clusters	Lithic scatter		AF	Qf2
0390	AZ R:14:42(ASM)	57	E	P	Cleared areas	Lithic scatter		AF	Qf2
0391	AZ R:14:43(ASM)	57	E	P	Cleared areas	Lithic scatter		AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0392	AZ R:14:44(ASM)	57	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
0393	AZ R:14:45(ASM)	57	<i>E</i>	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0394	AZ R:14:46(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0395	AZ R:14:47(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0396	AZ R:14:48(ASM)	57	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
0397	AZ R:14:49(ASM)	57	<i>E</i>	P	Rock cairn	Lithic scatter		AF	Qf1
0398	AZ R:14:50(ASM)	57	<i>E</i>	P	Rock pile, cleared areas	Trail segment	Lithic/ceramic scatter	AF	Qf1
0399	AZ R:14:51(ASM)	57	<i>E</i>	P	Cleared area	Rock ring	Lithic/ceramic scatter	AF	Qf1
0400	AZ R:14:52(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings, rock clusters	Lithic scatter	AF	Qf1
0401	AZ R:14:53(ASM)	57	<i>E</i>	P	Cleared areas, rock cluster	Lithic/ceramic scatter	Trail segment	AF	Qf2
0402	AZ R:14:54(ASM)	57	<i>E</i>	P	Cleared areas, rock clusters	Trail segment	Lithic/ceramic scatter	AF	Qf1
0403	AZ R:14:55(ASM)	57	<i>E</i>	P	Trail segment	Lithic/ceramic scatter		AF	Qf1
0404	AZ R:14:56(ASM)	57	<i>E</i>	P	Cleared areas, rock ring	Lithic scatter		IN	Br
0405	AZ R:14:57(ASM)	57	<i>E</i>	P	Cleared areas, compressed gravel area, rock rings, rock clusters	Trail segment	Lithic scatter	AF	Qf2
0406	AZ R:14:58(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings		AF	Qf3
0407	AZ R:14:59(ASM)	57	<i>E</i>	P	Cleared areas, rock rings, rock cairn	Trail segment	Lithic/ceramic scatter	AF	Qf2
0408	AZ R:14:60(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings, rock clusters	Lithic scatter	AF	Qf3
0409	AZ R:14:61(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings	Lithic scatter	AF	Qf2
0410	AZ R:14:62(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings	Lithic scatter	AF	Qf2
0411	AZ R:14:63(ASM)	57	<i>E</i>	P	Cleared areas	Rock clusters	Lithic scatter	AF	Qf2
0412	AZ R:14:64(ASM)	57	<i>E</i>	P	Cleared areas, compressed gravel areas	Rock rings, rock clusters	Lithic scatter	AF	Qf2
0413	AZ R:14:65(ASM)	57	<i>E</i>	P	Cleared areas	Rock ring	Lithic scatter	AF	Qf1
0414	AZ R:14:66(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0415	AZ R:14:67(ASM)	57	<i>E</i>	P	Cleared areas, rock rings, compressed gravel area	Lithic scatter	Trail segment	AF	Qf2
0416	AZ R:14:68(ASM)	57	<i>E</i>	P	Cleared areas, rock rings	Lithic/ceramic scatter	Trail segment	AF	Qf2
0417	AZ R:14:69(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings, rock clusters	Lithic scatter	AF	Qf2
0418	AZ X:3:230(ASM)	69	<i>E</i>	P	Rock pile			AW	Qf5
0419	AZ R:14:70(ASM)	57	<i>E</i>	P	Cleared areas	Rock cluster structure, rock clusters	Lithic scatter	AF	Qf3
0420	AZ R:14:71(ASM)	57	<i>E</i>	P	Cleared areas, compressed gravel areas	Lithic scatter		AF	Qf3
0421	AZ R:14:72(ASM)	57	<i>E</i>	H/P	Cleared areas, rock ring, rock clusters, compressed	Historic tent foundation	Lithic/ceramic scatter	AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
					gravel area				
0422	AZ R:14:73(ASM)	57	<i>E</i>	P	Cleared areas, compressed gravel areas	Lithic/ceramic scatter	Trail segment	AF	Qf2
0423	AZ R:14:74(ASM)	57	<i>E</i>	P	Rock rings, compressed gravel areas, cleared areas, rock clusters	Lithic scatter	Trail segment	AF	Qf2
0424	AZ R:14:75(ASM)	57	<i>E</i>	P	Cleared areas, rock ring?	Lithic/ceramic scatter	Trail segment	AF	Qf2
0425	AZ R:14:76(ASM)	57	<i>E</i>	P	Cleared areas, rock rings, compressed gravel areas	Lithic scatter	Trail segment	AF	Qf2
0426	AZ R:14:77(ASM)	57	<i>E</i>	P	Cleared areas, rock rings, clusters	Trail segment	Lithic scatter	AF	Qf2
0427	AZ R:14:78(ASM)	57	<i>E</i>	P	Cleared area, compressed gravel area	Lithic scatter		AF	Qf2
0428	AZ R:14:79(ASM)	57	<i>E</i>	P	Cleared areas, rock clusters	Lithic scatter	Trail segment	AF	Qf2
0429	AZ R:14:80(ASM)	57	<i>E</i>	P	Rock rings, rock clusters, compressed gravel areas	Lithic scatter	Trail segment	MH	Br
0430	AZ R:14:81(ASM)	57	<i>E</i>	H/P	Cleared areas, compressed gravel areas, rock rings & clusters	Lithic scatter	Historic trash scatter	AF	Qf2
0431	AZ R:14:82(ASM)	57	<i>E</i>	P	Rock ring	Cleared areas	Lithic scatter	AF	Qf2
0432	AZ R:14:83(ASM)	57	<i>E</i>	P	Cleared areas, w/ rock clusters	Rock rings	Lithic scatter	AF	Qf2
0433	AZ R:14:84(ASM)	57	<i>E</i>	P	Lithic scatter			AF	Qf2
0434	AZ R:14:85(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0435	AZ R:14:86(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0436	AZ R:14:87(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings	Lithic scatter	AF	Qf2
0437	AZ R:14:88(ASM)	57	<i>E</i>	P	Trail segment	Rock cluster	Lithic scatter	AF	Qf1
0438	AZ R:14:89(ASM)	57	<i>E</i>	P	Rock ring, rock clusters	Lithic scatter		AF	Qf1
0439	AZ R:14:90(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf1
0440	AZ R:14:91(ASM)	57	<i>E</i>	P	Lithic scatter			AF	Qf1
0441	AZ R:14:92(ASM)	57	<i>E</i>	P	Lithic scatter			AF	Qf1
0442	AZ R:14:93(ASM)	57	<i>E</i>	P	Cleared areas	Rock ring	Lithic scatter	AF	Qf2
0443	AZ R:14:94(ASM)	57	<i>E</i>	P	Cleared areas	Rock ring	Lithic scatter	AF	Qf2
0444	AZ R:14:95(ASM)	127, 57	<i>NE</i>	P	Cleared areas, compressed gravel area	Rock ring	Lithic scatter	AF	Qf1
0445	AZ R:14:96(ASM)	57	<i>E</i>	P	Cleared areas, rock clusters, rock cairn	Lithic scatter		AF	Qf2
0446	AZ R:14:97(ASM)	57	<i>E</i>	P	Cleared areas	Rock rings	Lithic scatter	AF	Qf3
0447	AZ R:14:98(ASM)	57	<i>E</i>	P	Cleared areas, rock clusters	Rock rings, rock alignments	Lithic scatter	AF	Qf3
0448	AZ R:14:99(ASM)	57	<i>E</i>	P	Cleared areas, rock clusters	Rock rings, rock	Lithic scatter	AF	Qf3



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
						alignments			
0449	AZ R:14:100(ASM)	57	E	P	Cleared areas, rock clusters	Lithic scatter		AF	Qf1
0450	AZ R:14:101(ASM)	57	E	P	Cleared areas, rock clusters	Trail segment	Lithic/ceramic scatter	AF	Qf1
0451	AZ R:14:102(ASM)	57	E	P	Cleared areas, compressed gravel areas	Rock rings, rock clusters	Lithic scatter	AF	Qf1
0452	AZ R:14:103(ASM)	57	E	P	Cleared areas, rock rings, alignments, clusters	Trail segment	Lithic scatter	AF	Qf1
0455	AZ R:14:106(ASM)	57	E	P	Cleared areas			AF	Qf2e
0456	AZ R:14:107(ASM)	57	E	P	Cleared areas, compressed gravel areas	Rock ring		AF	Qf2
0457	AZ R:14:108(ASM)	57	E	P	Cleared areas	Lithic/ceramic scatter		AF	Qf2
0458	AZ R:14:109(ASM)	57	E	P	Cleared areas	Rock ring		AF	Qf2
0459	AZ R:14:110(ASM)	57	E	P	Cleared areas	Compressed gravel area		AF	Qf3
0460	AZ R:14:111(ASM)	57	E	P	Cleared areas	Rock rings, rock clusters	Lithic scatter	AF	Qf3
0461	AZ R:14:112(ASM)	57	E	P	Cleared areas, rock clusters	Trail segment	Lithic scatter	AF	Qf2
0462	AZ R:14:113(ASM)	57	E	P	Lithic, ceramic scatter			MH	Br
0463	AZ R:14:114(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0464	AZ R:14:115(ASM)	57	E	P	Rock rings	Lithic scatter		AF	Qf1
0465	AZ R:14:116(ASM)	57	E	P	Cleared area	Rock ring		AF	Qf1
0466	AZ R:14:117(ASM)	57	E	P	Cleared areas			AF	Qf2
0467	AZ R:14:118(ASM)	57	E	P	Cleared areas			AW	Qf5
0469	AZ R:14:119(ASM)	57	E	P	Cleared area			AW	Qf5
0470	AZ R:14:120(ASM)	57	E	P	Cleared areas			AF	Qf2
0471	AZ R:14:121(ASM)	57	E	P	Rock clusters			AF	Qf2
0472	AZ R:14:122(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf1
0473	AZ R:14:123(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf2
0474	AZ R:14:124(ASM)	57	E	P	Cleared areas w/ rock clusters	Rock ring		AF	Qf2
0475	AZ R:14:125(ASM)	57	E	P	Cleared area			AW	Qf5
0476	AZ R:14:126(ASM)	57	E	P	Rock ring			AF	Qf2
0477	AZ R:14:127(ASM)	57	E	P	Cleared area			AF	Qf2
0478	AZ R:14:128(ASM)	57	E	P	Rock ring	Lithic scatter		MH	Br
0479	AZ R:14:129(ASM)	57	E	P	Rock clusters	Lithic scatter		AF	Qf2
0480	AZ R:14:130(ASM)	57	E	P	Cleared area	Lithic scatter		AF	Qf2
0481	AZ R:14:131(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf2
0482	AZ R:14:132(ASM)	57	E	P	Rock clusters	Lithic scatter		AF	Qf2
0483	AZ R:14:133(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf2
0484	AZ R:14:134(ASM)	57	E	P	Cleared area	Rock ring		AF	Qf2
0485	AZ R:14:135(ASM)	57	E	P	Rock ring			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0486	AZ R:14:136(ASM)	57	<i>E</i>	P	Rock ring			AF	Qf2
0487	AZ R:14:137(ASM)	57	<i>E</i>	P	Cleared areas			AF	Qf1
0488	AZ R:14:138(ASM)	57	<i>E</i>	P	Rock rings			AF	Qf1
0489	AZ R:14:139(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf1
0490	AZ R:14:140(ASM)	57	<i>E</i>	P	Rock ring			AF	Qf1
0491	AZ R:14:141(ASM)	57	<i>E</i>	P	Rock ring			AW	Qf5
0492	AZ R:14:142(ASM)	127, 57	<i>NE</i>	P	Rock alignments			AF	Qf1
0493	AZ R:14:143(ASM)	127, 57	<i>NE</i>	P	Rock ring			AF	Qf1
0494	AZ R:14:144(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0495	AZ R:14:145(ASM)	57	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
0496	AZ R:14:146(ASM)	57	<i>E</i>	P	Rock ring	Cleared area, rock clusters		AF	Qf2
0497	AZ R:14:147(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf2
0498	AZ R:14:148(ASM)	57	<i>E</i>	P	Rock rings			AF	Qf2
0499	AZ R:14:149(ASM)	57	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
0500	AZ R:14:150(ASM)	57	<i>E</i>	P	Cleared areas			AF	Qf2
0501	AZ R:14:151(ASM)	57	<i>E</i>	P	Possible cleared area (impact crater?)			AF	Qf2
0502	AZ R:14:152(ASM)	57	<i>E</i>	P	Rock ring	Cleared areas	Lithic scatter	AF	Qf2
0503	AZ R:14:153(ASM)	57	<i>E</i>	P	Cleared areas			AT	Qf4
0504	AZ R:14:154(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf2
0505	AZ R:14:155(ASM)	57	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
0506	AZ R:14:156(ASM)	57	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
0507	AZ R:14:157(ASM)	57	<i>E</i>	P	Cleared areas			AT	Qf4
0508	AZ R:14:158(ASM)	57	<i>E</i>	P	Rock alignments			AF	Qf1
0509	AZ R:14:159(ASM)	57	<i>E</i>	P	Cleared area			AW	Qf5
0510	AZ R:14:160(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf2
0511	AZ R:14:161(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf1
0512	AZ R:14:162(ASM)	57	<i>E</i>	P	Cleared areas	Lithic scatter		AF	Qf2
0513	AZ R:14:163(ASM)	57	<i>E</i>	P	Rock ring, rock clusters	Cleared area		AF	Qf1
0514	AZ R:14:164(ASM)	57	<i>E</i>	P	Rock clusters			AF	Qf1
0515	AZ R:14:165(ASM)	57	<i>E</i>	P	Rock cluster			AF	Qf1
0516	AZ R:14:166(ASM)	57	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
0517	AZ R:14:167(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf1
0518	AZ R:14:168(ASM)	57	<i>E</i>	P	Cleared area			AF	Qf1
0519	AZ R:14:169(ASM)	57	<i>E</i>	P	Rock rings	Lithic scatter		AF	Qf1
0520	AZ R:14:170(ASM)	57	<i>E</i>	P	Rock alignments			AF	Qf2
0521	AZ R:14:171(ASM)	57	<i>E</i>	P	Rock ring	Rock pile w/ mano		AF	Qf1
0522	AZ R:14:172(ASM)	57	<i>E</i>	P	Cleared areas			AW	Qf5
0523	AZ R:14:173(ASM)	57	<i>E</i>	P	Rock ring			AF	Qf2
0524	AZ R:14:174(ASM)	57	<i>E</i>	P	Rock ring			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0525	AZ R:14:175(ASM)	57	E	P	Rock ring			AF	Qf3
0526	AZ R:14:176(ASM)	57	E	P	Rock ring			AF	Qf2
0527	AZ R:14:177(ASM)	57	E	P	Cleared areas			AF	Qf2
0528	AZ R:14:178(ASM)	57	E	P	Cleared area			AF	Qf2
0529	AZ R:14:179(ASM)	57	E	P	Cleared areas			AF	Qf2
0530	AZ R:14:180(ASM)	57	E	P	Rock cluster	Lithic scatter		MH	Br
0531	AZ R:14:181(ASM)	57	E	P	Rock ring			AF	Qf2
0532	AZ R:14:182(ASM)	57	E	P	Rock cluster	Lithic scatter		AF	Qf2
0533	AZ R:14:183(ASM)	57	E	P	Rock ring			AF	Qf2
0534	AZ R:14:184(ASM)	57	E	P	Rock ring			AF	Qf2
0535	AZ R:14:185(ASM)	57	E	P	Cleared area			AF	Qf2e
0536	AZ R:14:186(ASM)	57	E	P	Rock cluster	Lithic flake		AF	Qf1
0537	AZ R:14:187(ASM)	57	E	P	Rock clusters			AF	Qf2
0538	AZ R:14:188(ASM)	57	E	P	Rock ring			AF	Qf2
0539	AZ R:14:189(ASM)	57	E	P	Rock ring			AF	Qf2
0540	AZ R:14:190(ASM)	57	E	P	Rock ring			AF	Qf2
0541	AZ R:14:191(ASM)	57	E	P	Cleared area			AF	Qf2
0542	AZ R:14:192(ASM)	57	E	P	Rock ring, rock clusters			AF	Qf2
0543	AZ R:14:193(ASM)	57	E	P	Cleared area	Lithic scatter		AW	Qf5
0544	AZ R:14:194(ASM)	57	E	P	Rock cluster			AF	Qf1
0545	AZ R:14:195(ASM)	57	E	P	Cleared areas			AF	Qf2
0546	AZ R:14:196(ASM)	57	E	P	Cleared area	Lithic scatter		AF	Qf2
0547	AZ R:14:197(ASM)	57	E	P	Cleared area			AF	Qf2
0548	AZ R:14:198(ASM)	57	E	P	Cleared areas	Lithic scatter		AF	Qf2
0549	AZ R:14:199(ASM)	57	E	P	Cleared areas			AF	Qf1
0550	AZ R:14:200(ASM)	57	E	P	Cleared area			AF	Qf2
0551	AZ R:14:201(ASM)	57	E	P	Cleared areas			AF	Qf2
0552	AZ R:14:202(ASM)	57	E	P	Cleared area			AF	Qf2
0553	AZ R:14:203(ASM)	57	E	P	Cleared areas			AW	Qf5
0554	AZ R:14:204(ASM)	57	E	P	Rock ring			AF	Qf2
0555	AZ R:14:205(ASM)	57	E	P	Cleared areas	Lithic scatter		AF	Qf2
0556	AZ R:14:206(ASM)	57	E	P	Cleared area	Lithic scatter		AF	Qf2
0557	AZ R:14:207(ASM)	57	E	P	Cleared area			AF	Qf2
0558	AZ R:14:208(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf2
0559	AZ R:14:209(ASM)	57	E	P	Cleared areas			AF	Qf2
0560	AZ R:14:210(ASM)	57	E	P	Cleared areas			AF	Qf2
0561	AZ R:14:211(ASM)	57	E	P	Rock ring			AF	Qf1
0562	AZ R:14:212(ASM)	57	E	P	Cleared area	Rock cluster		AF	Qf2
0563	AZ R:14:213(ASM)	57	E	P	Rock ring			AF	Qf1
0564	AZ R:14:214(ASM)	57	E	P	Cleared area			AF	Qf2
0565	AZ R:14:215(ASM)	57	E	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0566	AZ R:14:216(ASM)	57	E	P	Rock ring			AF	Qf2
0567	AZ R:14:217(ASM)	57	E	P	Cleared area			AF	Qf2
0568	AZ R:14:218(ASM)	57	E	P	Cleared areas			AW	Qf5
0569	AZ R:15:97(ASM)	57	E	P	Rock ring, rock cluster	Lithic scatter		AF	Qf3
0570	AZ R:15:98(ASM)	57	E	P	Cleared area, compressed gravel area	Rock ring	Lithic scatter	AF	Qf2
0571	AZ R:15:99(ASM)	57	E	P	Rock rings	Cleared area	Lithic scatter	AF	Qf2
0572	AZ R:15:100(ASM)	57	E	P	Cleared areas	Possible rock ring	Lithic scatter	AF	Qf2
0573	AZ R:15:101(ASM)	57	E	P	Cleared area, compressed gravel area	Lithic scatter	Lithic scatter	AF	Qf2
0574	AZ R:15:102(ASM)	57	E	P	Rock clusters	Possible cleared areas	Lithic scatter	AF	Qf2
0575	AZ R:15:103(ASM)	57	E	P	Cleared areas	Rock ring, rock alignment	Lithic scatter	AF	Qf2
0576	AZ R:15:104(ASM)	57	E	P	Cleared areas	Rock cluster		AF	Qf1
0577	AZ R:15:105(ASM)	57	E	P	Cleared areas	Rock ring	Lithic scatter	AF	Qf1
0578	AZ R:15:106(ASM)	57	E	P	Cleared areas, rock rings	Trail segment	Lithic scatter	AF	Qf1
0579	AZ R:15:107(ASM)	57	E	P	Rock ring	Cleared area	Lithic scatter	AF	Qf1
0580	AZ R:15:108(ASM)	57	E	P	Lithic scatter			AF	Qf2
0581	AZ R:15:109(ASM)	57	E	P	Compressed gravel areas	Rock cluster	Lithic scatter	AF	Qf2
0582	AZ R:15:110(ASM)	57	E	P	Lithic scatter			AF	Qf1
0583	AZ R:15:111(ASM)	57	E	P	Rock ring, rock cluster, rock alignment	Possible cleared area (impact crater?)	Lithic scatter	AF	Qf1
0584	AZ R:15:112(ASM)	57	E	P	Lithic scatter			AF	Qf2
0585	AZ R:15:113(ASM)	57	E	P	Lithic scatter			AF	Qf1
0586	AZ R:15:114(ASM)	57	E	P	Lithic scatter			AF	Qf1
0587	AZ R:15:115(ASM)	57	E	P	Cleared areas, rock rings, rock clusters	Lithic scatter		AF	Qf2
0588	AZ R:15:116(ASM)	57	E	P	Cleared areas, compressed gravel area, rock rings, rock clusters	Trail segment	Lithic scatter	AF	Qf2
0589	AZ R:15:117(ASM)	57	E	P	Cleared areas, compressed gravel area	Rock rings	Lithic scatter	AF	Qf2
0590	AZ R:15:118(ASM)	57	E	P	Cleared areas	Trail segment	Lithic scatter	AF	Qf3
0591	AZ R:15:119(ASM)	57	E	P	Cleared areas, rock rings	Trail segment	Lithic scatter	AF	Qf2
0592	AZ R:15:120(ASM)	57	E	P	Cleared areas	Rock rings, rock alignments, rock clusters	Lithic scatter	AF	Qf2
0593	AZ R:15:121(ASM)	57	E	P	Rock rings, rock clusters	Compressed gravel areas	Lithic scatter	AF	Qf2
0594	AZ R:15:122(ASM)	57	E	P	Cleared areas	Rock ring, rock cluster	Lithic scatter	AF	Qf2
0595	AZ R:15:123(ASM)	57	E	P	Cleared areas, compressed	Rock ring, rock		AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
					gravel area	clusters			
0596	AZ R:15:124(ASM)	57	E	P	Cleared area	Rock cluster	Lithic/ceramic scatter	AF	Qf2
0597	AZ R:15:125(ASM)	57	E	P	Cleared areas	Flaked stone artifact		MH	Br
0598	AZ R:15:126(ASM)	57	E	P	Rock cluster			AF	Qf2
0599	AZ R:15:127(ASM)	57	E	P	Cleared areas			AF	Qf1
0600	AZ R:15:128(ASM)	57	E	P	Rock ring			AF	Qf1
0601	AZ R:15:129(ASM)	57	E	P	Rock ring			AF	Qf1
0602	AZ R:15:130(ASM)	57	E	P	Rock ring			MH	Br
0603	AZ R:15:131(ASM)	57	E	P	Cleared area	Rock cluster		MH	Br
0604	AZ R:15:132(ASM)	57	E	P	Cleared area	rock line		MH	Br
0605	AZ R:15:133(ASM)	57	E	P	Cleared area			MH	Br
0606	AZ R:15:134(ASM)	57	E	P	Rock ring			MH	Br
0607	AZ R:15:135(ASM)	57	E	P	Cleared area	Rock cluster		AF	Qf2
0608	AZ R:15:136(ASM)	57	E	P	Cleared area			AF	Qf2
0609	AZ R:15:137(ASM)	57	E	P	Rock ring			AF	Qf1
0610	AZ R:15:138(ASM)	57	E	P	Cleared area			AF	Qf1
0611	AZ R:15:139(ASM)	57	E	P	Rock cluster			MH	Br
0612	AZ R:15:140(ASM)	57	E	P	Rock ring			AF	Qf1
0613	AZ R:15:141(ASM)	57	E	P	Cleared area			MH	Br
0614	AZ R:15:142(ASM)	57	E	P	Rock ring			MH	Br
0615	AZ R:15:143(ASM)	57	E	P	Rock cluster			MH	Br
0616	AZ R:15:144(ASM)	57	E	P	Rock cluster			AF	Qf2
0617	AZ R:15:145(ASM)	57	E	P	Cleared area			AF	Qf2
0618	AZ R:15:146(ASM)	57	E	P	Cleared area			AF	Qf2
0619	AZ R:15:147(ASM)	57	E	P	Rock cluster			AF	Qf1
0620	AZ R:15:148(ASM)	57	E	P	Rock cluster			AF	Qf1
0621	AZ R:15:149(ASM)	57	E	P	Cleared area			AF	Qf1
0622	AZ R:15:150(ASM)	57	E	P	Rock ring			AF	Qf1
0623	AZ R:15:151(ASM)	57	E	P	Cleared area			AF	Qf2
0624	AZ R:15:152(ASM)	57	E	P	Cleared area			AF	Qf2
0625	AZ R:15:153(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf1
0626	AZ R:15:154(ASM)	57	E	P	Rock ring			AF	Qf0
0627	AZ R:15:155(ASM)	57	E	P	Rock ring			AF	Qf0
0628	AZ R:15:156(ASM)	57	E	P	Rock ring			AF	Qf0
0629	AZ R:15:157(ASM)	57	E	P	Rock ring	Rock cluster		AF	Qf1
0630	AZ R:15:158(ASM)	57	E	P	Cleared area			AF	Qf1
0631	AZ R:15:159(ASM)	57	E	P	Cleared area			AF	Qf1
0632	AZ R:15:160(ASM)	57	E	P	Rock cluster	Lithic scatter		AF	Qf1
0633	AZ R:15:161(ASM)	57	E	P	Rock ring			AF	Qf1
0634	AZ R:15:162(ASM)	57	E	P	Rock ring			AF	Qf2
0635	AZ R:15:163(ASM)	57	E	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0636	AZ R:15:164(ASM)	57	E	P	Rock ring			AF	Qf2
0637	AZ R:15:165(ASM)	57	E	P	Rock ring			AF	Qf2
0638	AZ R:15:166(ASM)	57	E	P	Rock cluster			AF	Qf2
0639	AZ R:15:167(ASM)	57	E	P	Rock cluster			AF	Qf1
0640	AZ R:15:168(ASM)	57	E	P	Rock cluster			MH	Br
0641	AZ R:15:169(ASM)	57	E	P	Rock ring	Rock cluster		MH	Br
0642	AZ R:15:170(ASM)	57	E	P	Rock cluster			AF	Qf2
0643	AZ R:15:171(ASM)	57	E	P	Rock ring	Cleared area		AF	Qf1
0644	AZ R:15:172(ASM)	57	E	P	Rock cluster			AF	Qf1
0645	AZ R:15:173(ASM)	57	E	P	Rock ring			AF	Qf0
0646	AZ R:15:174(ASM)	57	E	P	Rock clusters			AF	Qf0
0647	AZ R:15:175(ASM)	57	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
0648	AZ R:15:176(ASM)	57	E	P	Rock clusters			AW	Qf5
0649	AZ R:15:177(ASM)	57	E	P	Rock rings			AF	Qf0
0650	AZ R:15:178(ASM)	57	E	P	Rock clusters	Lithic scatter		AF	Qf1
0651	AZ R:15:179(ASM)	57	E	P	Rock clusters	Lithic scatter		AF	Qf1
0652	AZ R:15:180(ASM)	57	E	P	Rock ring	Lithic scatter		AF	Qf2
0653	AZ R:15:181(ASM)	57	E	P	Rock ring			AF	Qf1
0654	AZ R:15:182(ASM)	57	E	P	Cleared area			AF	Qf1
0655	AZ R:15:183(ASM)	57	E	P	Rock ring			AF	Qf1
0656	AZ R:15:217(ASM)	66	E	P	Cleared area, rock ring	Rock cluster	Lithic scatter	AF	Qf1
0657	AZ Y:1:6(ASM)	69	U	P	Cleared area			AF	Qf2
0658	AZ Y:1:7(ASM)	69	U	P	Cleared area	Lithic scatter		AF	Qf2
0659	AZ Y:1:8(ASM)	69	U	P	Cleared area			AF	Qf2
0660	AZ Y:1:9(ASM)	69	U	P	Cleared area			AW	Qf5
0661	AZ Y:1:10(ASM)	69	U	P	Cleared area	Lithic scatter		AF	Qf2
0662	AZ Y:1:11(ASM)	69	U	P	Cleared area	Lithic scatter		AF	Qf2
0663	AZ Y:1:12(ASM)	69	U	P	Cleared area			AF	Qf2
0664	AZ Y:1:13(ASM)	69	U	P	Rock ring			AF	Qf2
0665	AZ Y:1:14(ASM)	69	U	P	Rock cluster			AF	Qf2
0666	AZ Y:1:15(ASM)	69	U	P	Cleared area			AF	Qf2
0667	AZ Y:1:16(ASM)	69	U	P	Cleared area			AF	Qf2
0668	AZ Y:1:17(ASM)	69	U	P	Cleared area	Rock ring		AF	Qf2
0669	AZ Y:1:18(ASM)	69	U	P	Cleared area			AF	Qf2
0670	AZ X:3:136(ASM)	69	U	H	Wooden structures	Rock-lined driveways	Historic trash scatter	AF	Qf1
0671	AZ X:3:137(ASM)	69	U	P	Trail segment	Rock cairn	Ceramic scatter	MH	Br
0672	AZ X:3:138(ASM)	69	U	P	Trail segment	Lithic/ceramic scatter		AF	Qf3
0673	AZ X:3:139(ASM)	69	U	P	Trail segment	Lithic/ceramic scatter		DU	Qd
0674	AZ X:3:140(ASM)	69	U	P	Trail segment	Lithic/ceramic scatter	Rock cairn	AF	Qf2
0675	AZ X:3:141(ASM)	69	U	P	Trail segment	Lithic/ceramic scatter	Rock cairn	AP	Qpl
0676	AZ X:3:142(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0677	AZ X:3:143(ASM)	69, 189	NE	H	Historic rock alignments	Historic trash pits		AP	Qpl
0678	AZ X:3:144(ASM)	69	U	P	Cleared area			MH	Br
0679	AZ X:3:145(ASM)	69	U	P	Cleared area			MH	Br
0680	AZ X:3:146(ASM)	69	U	P	Cleared area			BD	QTb
0681	AZ X:3:147(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0682	AZ X:3:148(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0683	AZ X:3:149(ASM)	69	U	P	Cleared area			BD	QTb
0684	AZ X:3:150(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0685	AZ X:3:151(ASM)	69	U	P	Rock ring	Lithic scatter		BD	QTb
0686	AZ X:3:152(ASM)	69	U	P	Petroglyphs	Lithic scatter		BD	QTb
0687	AZ X:3:153(ASM)	69	U	P	Mine			BD	QTb
0688	AZ X:3:154(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0689	AZ X:3:155(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0690	AZ X:3:156(ASM)	69	U	H/P	Cleared area	Rock cluster	Historic trash scatter	BD	QTb
0691	AZ X:3:157(ASM)	69	U	P	Cleared area			BD	QTb
0692	AZ X:3:158(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0693	AZ X:3:159(ASM)	69	U	P	Cleared area, rock cluster	Trail segment	Lithic scatter	BD	QTb
0694	AZ X:3:160(ASM)	69	U	P	Cleared area			BD	QTb
0695	AZ X:3:161(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0696	AZ X:3:162(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0697	AZ X:3:163(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0698	AZ X:3:164(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0699	AZ X:3:165(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0700	AZ X:3:166(ASM)	69	U	P	Cleared area			BD	QTb
0701	AZ X:3:167(ASM)	69	U	P	Cleared area			BD	QTb
0702	AZ X:3:168(ASM)	69	U	P	Cleared area			BD	QTb
0703	AZ X:3:169(ASM)	69	U	P	Cleared area			BD	QTb
0704	AZ X:3:170(ASM)	69	U	P	Cleared area			BD	QTb
0705	AZ X:3:171(ASM)	69	U	P	Cleared area			BD	QTb
0706	AZ X:3:172(ASM)	69	U	P	Cleared area			BD	QTb
0707	AZ X:3:173(ASM)	69	U	P	Cleared area			BD	QTb
0708	AZ X:3:174(ASM)	69	U	P	Cleared area			BD	QTb
0709	AZ X:3:175(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0710	AZ X:3:176(ASM)	69	U	P	Cleared area			BD	QTb
0711	AZ X:3:177(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0712	AZ X:3:178(ASM)	69	U	P	Cleared area			BD	QTb
0713	AZ X:3:179(ASM)	69	U	P	Cleared area	Cleared area		BD	QTb
0714	AZ X:3:180(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0715	AZ X:3:181(ASM)	69	U	P	Cleared area			AW	Qf5
0716	AZ X:3:182(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0717	AZ X:3:183(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0718	AZ X:3:184(ASM)	69	U	P	Cleared area	Rock cluster	Lithic scatter	BD	QTb
0719	AZ X:3:185(ASM)	69	U	P	Cleared area			BD	QTb
0720	AZ X:3:186(ASM)	69	U	P	Cleared area			BD	QTb
0721	AZ X:3:187(ASM)	69	U	P	Cleared area			AW	Qf5
0722	AZ X:3:188(ASM)	69	U	P	Cleared area			BD	QTb
0723	AZ X:3:189(ASM)	69	U	P	Cleared area			BD	QTb
0724	AZ X:3:190(ASM)	69	U	P	Cleared area			BD	QTb
0725	AZ X:3:191(ASM)	69	U	P	Cleared area			BD	QTb
0726	AZ X:3:192(ASM)	69	U	P	Cleared area			BD	QTb
0727	AZ X:3:193(ASM)	69	U	P	Cleared area			BD	QTb
0728	AZ X:3:194(ASM)	69	U	P	Cleared area			BD	QTb
0729	AZ X:3:195(ASM)	69	U	P	Rock pile - thermal feature			AW	Qf5
0730	AZ X:3:196(ASM)	69	U	P	Cleared area			BD	QTb
0731	AZ X:3:197(ASM)	69	U	P	Cleared area	Rock cluster	Rock alignment	BD	QTb
0732	AZ X:3:198(ASM)	69	U	P	Cleared area			BD	QTb
0733	AZ X:3:199(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0734	AZ X:3:200(ASM)	69	U	P	Cleared area			BD	QTb
0735	AZ X:3:201(ASM)	69	U	P	Cleared area			BD	QTb
0736	AZ X:3:202(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0737	AZ X:3:203(ASM)	69	U	P	Cleared area			BD	QTb
0738	AZ X:3:204(ASM)	69	U	P	Cleared area			BD	QTb
0739	AZ X:3:205(ASM)	69	U	P	Cleared area			AW	Qf5
0740	AZ X:3:206(ASM)	69	U	P	Rock pile - thermal feature			AW	Qf5
0741	AZ X:3:207(ASM)	69	U	P	Rock pile - thermal feature			AW	Qf5
0742	AZ X:3:208(ASM)	69	U	P	Cleared area	Rock cluster	Lithic scatter	BD	QTb
0743	AZ X:3:209(ASM)	69	U	P	Rock alignment			BD	QTb
0744	AZ X:3:210(ASM)	69	U	P	Cleared area			AW	Qf5
0745	AZ X:3:211(ASM)	69	U	P	Rock pile - thermal feature			AW	Qf5
0746	AZ X:3:212(ASM)	69	U	P	Cleared area			AW	Qf5
0747	AZ X:3:213(ASM)	69	U	P	Rock pile - thermal feature			AP	Qpl
0748	AZ X:3:214(ASM)	69	U	P	Cleared area			BD	QTb
0749	AZ X:3:215(ASM)	69	U	P	Cleared area			BD	QTb
0750	AZ X:3:216(ASM)	69	U	P	Cleared area			AP	Qpl
0751	AZ X:3:217(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0752	AZ X:3:218(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0753	AZ X:3:219(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0754	AZ X:3:220(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0755	AZ X:3:221(ASM)	69	U	P	Cleared area	Lithic scatter		AW	Qf5
0756	AZ X:3:222(ASM)	69	U	P	Cleared area			BD	QTb
0757	AZ X:3:223(ASM)	69	U	P	Cleared area			BD	QTb
0758	AZ X:3:224(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0759	AZ X:3:225(ASM)	69	U	P	Cleared area			BD	QTb
0760	AZ X:3:226(ASM)	69	U	P	Cleared areas			BD	QTb
0761	AZ X:3:227(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0762	AZ X:3:228(ASM)	69	U	P	Cleared area			BD	QTb
0763	AZ X:3:229(ASM)	69	U	P	Rock pile - thermal feature			BD	QTb
0764	AZ X:3:231(ASM)	69	U	P	Rock piles - thermal Features?			AW	Qf5
0765	AZ X:3:232(ASM)	69	U	P	Lithic scatter	Cleared area		BD	QTb
0766	AZ X:3:233(ASM)	69	U	P	Cleared area			BD	QTb
0767	AZ X:3:234(ASM)	69	U	P	Cleared area			BD	QTb
0768	AZ X:3:235(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0769	AZ X:3:236(ASM)	69	U	P	Cleared area			AW	Qf5
0770	AZ X:3:237(ASM)	69	U	P	Cleared area			BD	QTb
0771	AZ X:3:238(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0772	AZ X:3:239(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0773	AZ X:3:240(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0774	AZ X:3:241(ASM)	69	U	P	Cleared area			BD	QTb
0775	AZ X:3:242(ASM)	69	U	P	Cleared area			BD	QTb
0776	AZ X:3:243(ASM)	69	U	P	Cleared area			BD	QTb
0777	AZ X:3:244(ASM)	69	U	P	Rock cluster	Lithic scatter		BD	QTb
0778	AZ X:3:245(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0779	AZ X:3:246(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0780	AZ X:3:247(ASM)	69	U	P	Cleared area			AF	Qf2
0781	AZ X:3:248(ASM)	69	U	P	Rock cluster			AF	Qf2
0782	AZ X:3:249(ASM)	69	U	P	Cleared area	Rock ring		AF	Qf2
0783	AZ X:3:250(ASM)	69	U	P	Cleared area			AF	Qf2
0784	AZ X:3:251(ASM)	69	U	P	Rock alignment			MH	Br
0785	AZ X:3:252(ASM)	69	U	H	Cleared area			BD	QTb
0786	AZ X:3:253(ASM)	69	U	P	Cleared area			AW	Qf5
0787	AZ X:3:254(ASM)	69	U	P	Cleared area			AW	Qf5
0788	AZ X:3:255(ASM)	69	U	P	Cleared area			BD	QTb
0789	AZ X:3:256(ASM)	69	U	P	Cleared area			BD	QTb
0790	AZ X:3:257(ASM)	69	U	H	Military foxhole			MH	Br
0791	AZ X:3:258(ASM)	69	U	H	Cleared area			MH	Br
0792	AZ X:3:259(ASM)	69	U	P	Cleared area			AW	Qf5
0793	AZ X:3:260(ASM)	69	U	P	Cleared area			AF	Qf2
0794	AZ X:3:261(ASM)	69	U	P	Cleared area			AF	Qf2
0795	AZ X:3:262(ASM)	69	U	P	Cleared area			MH	Br
0796	AZ X:3:263(ASM)	69	U	H	Rock alignment			MH	Br
0797	AZ X:3:264(ASM)	69, 115	NE	H	Rock alignment			MH	Br
0798	AZ R:15:22(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0799	AZ X:3:265(ASM)	69	U	P	Cleared area			AF	Qf2
0800	AZ X:3:266(ASM)	69	U	P	Cleared area			AF	Qf2
0801	AZ X:3:267(ASM)	69	U	P	Cleared area	Rock cluster		AF	Qf2
0802	AZ X:3:268(ASM)	69	U	P	Cleared area			AF	Qf2
0803	AZ X:3:269(ASM)	69	U	H	Rock alignment			MH	Br
0804	AZ X:3:270(ASM)	69	U	H	Mineshaft			MH	Br
0805	AZ X:3:271(ASM)	69	U	P	Rock cluster			MH	Br
0806	AZ X:3:272(ASM)	69	U	P	Rock ring			MH	Br
0807	AZ X:3:273(ASM)	69	U	P	Cleared area	Trail segment	Ceramic scatter	AF	Qf1
0808	AZ X:3:274(ASM)	69	U	P	Cleared area			AF	Qf1
0809	AZ X:3:275(ASM)	69	U	P	Cleared area, compressed gravel area	Rock pile		AF	Qf1
0810	AZ X:3:276(ASM)	69	U	P	Cleared area			AF	Qf1
0811	AZ X:3:277(ASM)	69	U	P	Cleared area			AF	Qf1
0812	AZ X:3:278(ASM)	69	U	P	Cleared area			AF	Qf1
0813	AZ X:3:279(ASM)	69	U	P	Cleared area			AF	Qf1
0814	AZ X:3:280(ASM)	69	U	P	Rock ring			AF	Qf1
0815	AZ X:3:281(ASM)	69	U	P	Cleared area			AW	Qf5
0816	AZ X:3:282(ASM)	69	U	P	Rock cluster			AP	Qpl
0817	AZ X:3:283(ASM)	69	U	H	Rock alignment	Rock cluster		MH	Br
0818	AZ X:3:284(ASM)	69	U	P	Cleared area			MH	Br
0819	AZ X:3:285(ASM)	69	U	P	Cleared area	Compressed gravel area	Lithic scatter	MH	Br
0820	AZ X:3:286(ASM)	69	U	P	Cleared area			BD	QTb
0821	AZ X:3:287(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0822	AZ X:3:288(ASM)	69	U	P	Cleared area			BD	QTb
0823	AZ X:3:289(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0824	AZ X:3:290(ASM)	69	U	P	Cleared area	Trail segment	Lithic scatter	BD	QTb
0825	AZ X:3:291(ASM)	69	U	P	Cleared area			BD	QTb
0826	AZ X:3:292(ASM)	69	U	P	Cleared area	Rock pile – thermal feature	Lithic scatter	BD	QTb
0827	AZ X:3:293(ASM)	69	U	H	Rock alignment			AT	Qf4
0828	AZ X:3:294(ASM)	69	U	H/P	Petroglyph, rock alignment	Trail segment	Mine	IN	Br
0829	AZ X:3:295(ASM)	69	U	P	Cleared area			IN	Br
0830	AZ X:3:296(ASM)	69	U	P	Cleared area			AF	Qf1
0831	AZ X:3:297(ASM)	69	U	P	Cleared area			BD	QTb
0832	AZ X:3:298(ASM)	69	U	P	Cleared area			BD	QTb
0833	AZ X:3:299(ASM)	69	U	H	Rock alignment	Historic artifact scatter	Rock cluster	MH	Br
0834	AZ X:3:300(ASM)	69	U	H	Rock alignment	Historic artifact scatter		MH	Br
0835	AZ X:3:301(ASM)	69	U	H	Rock alignment			MH	Br
0836	AZ X:3:302(ASM)	69	U	P	Cleared area			BD	QTb

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0837	AZ X:3:303(ASM)	69	U	H	Military training area w/ multiple rock features	Military trash scatter		MH	Br
0838	AZ X:3:304(ASM)	69	U	P	Rock cluster			BD	QTb
0839	AZ X:3:305(ASM)	69	U	P	Cleared area			AF	Qf1
0840	AZ X:3:306(ASM)	69	U	P	Rock ring			AF	Qf1
0841	AZ X:3:307(ASM)	69	U	P	Cleared area	Rock cluster		AF	Qf1
0842	AZ X:3:308(ASM)	69	U	P	Cleared area			AF	Qf2
0843	AZ X:3:309(ASM)	69	U	P	Cleared area			AF	Qf1
0844	AZ X:3:310(ASM)	69	U	U	Possible geoglyph	Check dams/rock blinds	Rock alignment	AF	Qf2
0845	AZ X:3:311(ASM)	69	U	P	Cleared area			AF	Qf2
0846	AZ X:3:312(ASM)	69	U	P	Rock piles			PD	QTP
0847	AZ X:3:313(ASM)	69	U	P	Cleared area			AF	Qf2
0848	AZ X:3:314(ASM)	69	U	P	Rock alignment, rock clusters	Cleared area	Lithic scatter	AF	Qf2
0849	AZ X:3:315(ASM)	69	U	P	Cleared area			AF	Qf2
0850	AZ X:3:316(ASM)	69	U	P	Cleared area			AF	Qf2
0851	AZ X:3:317(ASM)	69	U	P	Cleared area			AF	Qf2
0852	AZ X:3:318(ASM)	69	U	P	Rock cluster			AF	Qf2
0853	AZ X:3:319(ASM)	69	U	P	Lithic scatter			AP	Qpl
0854	AZ X:3:320(ASM)	69	U	P	Cleared areas	Rock piles	Lithic scatter	AF	Qf2
0855	AZ X:3:321(ASM)	69	U	P	Cleared area, compressed gravel area	Trail segment	Lithic/ceramic scatter	AF	Qf2
0856	AZ X:3:322(ASM)	69	U	H	Rock alignment			MH	Br
0857	AZ X:3:323(ASM)	69	U	H	Rock alignment			MH	Br
0858	AZ X:3:324(ASM)	69	U	P	Cleared area			AF	Qf1
0859	AZ X:3:325(ASM)	69	U	P	Rock cluster			MH	Br
0860	AZ X:3:326(ASM)	69	U	P	Cleared area			AF	Qf1
0861	AZ X:3:327(ASM)	69	U	P	Cleared area	Rock cairn		AF	Qf1
0862	AZ X:3:328(ASM)	69	U	P	Rock ring			AF	Qf1
0863	AZ X:3:329(ASM)	69	U	P	Cleared area			AF	Qf1
0864	AZ X:3:330(ASM)	69	U	P	Cleared area	Rock pile		AF	Qf1
0865	AZ X:3:331(ASM)	69	U	P	Cleared area			AF	Qf1
0866	AZ X:3:332(ASM)	69	U	P	Cleared area, compressed gravel area	Rock pile		AP	Qpl
0867	AZ X:3:333(ASM)	69	U	P	Rock ring			AF	Qf1
0868	AZ X:3:334(ASM)	69	U	P	Rock clusters			AF	Qf1
0869	AZ X:3:335(ASM)	69	U	P	Cleared area	Rock piles	Lithic scatter	AF	Qf2
0870	AZ X:3:336(ASM)	69	U	P	Cleared area	Lithic scatter		AF	Qf2
0871	AZ X:3:337(ASM)	69	U	P	Cleared areas	Rock clusters	Lithic scatter	AF	Qf2
0872	AZ X:3:338(ASM)	69	U	P	Cleared areas	Rock clusters	Lithic scatter	AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0873	AZ X:3:339(ASM)	69	U	P	Lithic, ceramic scatter	Rock pile (small)		DU	Qd
0874	AZ X:3:340(ASM)	69	U	P	Rock ring	Lithic scatter		AF	Qf1
0875	AZ X:3:341(ASM)	69	U	P	Cleared areas	Rock clusters	Lithic scatter	BD	QTb
0876	AZ X:3:342(ASM)	69	U	P	Lithic scatter			BD	QTb
0877	AZ X:3:343(ASM)	69	U	P	Lithic scatter			AP	Qpl
0878	AZ X:3:344(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0879	AZ X:3:345(ASM)	69	U	P	Lithic scatter			BD	QTb
0880	AZ X:3:346(ASM)	69, 189	<i>E</i>	P	Cleared area	Lithic scatter		BD	QTb
0881	AZ X:3:347(ASM)	69	U	P	Cleared area	Rock cluster	Lithic scatter	BD	QTb
0882	AZ X:3:348(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0883	AZ X:3:349(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0884	AZ X:3:350(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0885	AZ X:3:351(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0886	AZ X:3:352(ASM)	69	U	P	Cleared area	Rock cluster	Lithic scatter	BD	QTb
0887	AZ X:3:353(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0888	AZ X:3:354(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0889	AZ X:3:355(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0890	AZ X:3:356(ASM)	69	U	P	Cleared area	Trail segment	Lithic scatter	BD	QTb
0891	AZ X:3:357(ASM)	69	U	P	Cleared areas	Rock clusters/cairns	Lithic scatter	BD	QTb
0892	AZ X:3:358(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0893	AZ X:3:359(ASM)	69	U	P	Cleared area	Compressed gravel area	Lithic scatter	BD	QTb
0894	AZ X:3:360(ASM)	69	U	P	Cleared area	Fire-cracked rock	Lithic scatter	BD	QTb
0895	AZ X:3:361(ASM)	69	U	P	Cleared area	Fire-cracked rock	Lithic scatter	BD	QTb
0896	AZ X:3:362(ASM)	69	U	P	Cleared area	Lithic scatter		BD	QTb
0897	AZ X:3:363(ASM)	69	U	P	Cleared area			AF	Qf3
0898	AZ X:3:364(ASM)	69	U	P	Cleared areas	Rock rings, rock clusters	Rock alignment	AF	Qf2
0899	AZ X:3:365(ASM)	69	U	P	Cleared area	Rock cluster	Lithic scatter	AF	Qf1
0900	AZ X:3:366(ASM)	69	U	P	Cleared area, compressed gravel area	Rock cluster	Lithic/ceramic scatter	AF	Qf1
0901	AZ X:3:367(ASM)	69	U	P	Cleared area	Lithic scatter		AF	Qf2
0902	AZ X:3:368(ASM)	69, 84	<i>E</i>	H	Military camp			AP	Qpl
0904	AZ S:14:57(ASM)	77, 78	<i>E</i>	H	Military camp			AF	Qf2
0905	AZ R:15:219(ASM)	79	U	P	Cleared area, compressed gravel area	Rock ring	Lithic scatter	AF	Qf2
0906	AZ R:15:23(ASM)	17, 28	NE	P	Lithic scatter			AF	Qf1
0907	AZ X:3:371(ASM)	84,105, 110,95	<i>E</i>	H	Road, State Route 95			MX	mixed
0909	AZ X:3:373(ASM)	85	U	P	Lithic scatter			AP	Qpl
0910	AZ X:3:374(ASM)	85	U	P	Fire-cracked rock features			AP	Qpl

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0911	AZ X:3:375(ASM)	85	U	P	Lithic scatter			AP	Qp1
0912	AZ R:11:72(ASM)	88	U	P	Lithic scatter			AF	Qf1
0913	AZ R:11:73(ASM)	88	U	P	Cleared area			AF	Qf2
0914	AZ R:11:74(ASM)	88	U	P	Rock ring			AF	Qf2
0915	AZ R:11:75(ASM)	88	U	P	Lithic scatter			AF	Qf2
0916	AZ R:11:76(ASM)	88	U	P	Lithic scatter			AF	Qf1
0917	AZ R:11:77(ASM)	88	U	P	Lithic scatter			AF	Qf2
0918	AZ R:11:78(ASM)	88	U	P	Lithic scatter			AF	Qf1
0919	AZ R:11:36(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0920	AZ R:11:37(ASM)	87, 123	<i>E</i>	P	Rock ring			AF	Qf2
0921	AZ R:11:38(ASM)	87	<i>E</i>	P	Rock ring			AF	Qf2
0922	AZ R:11:39(ASM)	87	<i>E</i>	P	Rock ring			AF	Qf2
0923	AZ R:11:40(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0924	AZ R:11:41(ASM)	87	<i>E</i>	P	Rock alignment			AF	Qf2
0925	AZ R:11:42(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf1
0926	AZ R:11:43(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0927	AZ R:11:45(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf1
0928	AZ R:11:46(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf1
0929	AZ R:11:47(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0930	AZ R:11:48(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0931	AZ R:11:49(ASM)	87	<i>E</i>	P	Ceramic scatter			AF	Qf2
0932	AZ R:11:50(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0933	AZ R:11:51(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0934	AZ R:11:52(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0935	AZ R:11:53(ASM)	87	<i>E</i>	P	Lithic, ceramic scatter			AF	Qf2
0936	AZ R:11:54(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0937	AZ R:11:55(ASM)	87	<i>E</i>	P	Lithic, ceramic scatter			AF	Qf2
0938	AZ R:11:56(ASM)	87	<i>E</i>	P	Lithic, ceramic scatter			AF	Qf2
0939	AZ R:11:57(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf1
0940	AZ R:11:58(ASM)	87	<i>E</i>	P	Lithic scatter			AF	Qf2
0941	AZ R:11:59(ASM)	87	<i>E</i>	P	Rock ring			AW	Qf5
0942	AZ R:11:60(ASM)	87	<i>E</i>	P	Rock ring			AF	Qf1
0943	AZ R:11:61(ASM)	87	<i>E</i>	P	Rock ring			AF	Qf2
0944	AZ R:11:62(ASM)	87, 113	<i>E</i>	P	Trail segment			AF	Qf2
0945	AZ R:11:63(ASM)	87	<i>NE</i>	H	Survey marker			AF	Qf2
0946	AZ R:11:64(ASM)	87	<i>NE</i>	H	Survey marker			AF	Qf2
0947	AZ R:11:65(ASM)	87	<i>NE</i>	H	Survey marker			AF	Qf1
0948	AZ R:11:66(ASM)	87	<i>NE</i>	H	Survey marker			AW	Qf5
0949	AZ R:11:67(ASM)	87	<i>NE</i>	H	Survey marker			MH	Br
0950	AZ R:11:68(ASM)	87	<i>NE</i>	H	Survey marker			AF	Qf2
0951	AZ R:11:69(ASM)	87	<i>NE</i>	H	Survey marker			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
0953	AZ R:11:71(ASM)	87	E	H	Rock alignment			AF	Qf1
0954	AZ X:4:69(ASM)	93	E	P	Rock ring			AF	Qf2
0955	AZ X:4:70(ASM)	93	E	P	Lithic scatter			AF	Qf3
0956	AZ X:4:71(ASM)	93	E	P	Rock ring			AF	Qf1
0957	AZ X:4:72(ASM)	93	E	P	Rock ring			AF	Qf2
0958	AZ X:4:73(ASM)	93	E	P	Rock ring	Cleared area		AF	Qf1
0959	AZ X:4:74(ASM)	93	E	P	Rock ring			AF	Qf2
0960	AZ X:4:75(ASM)	93	E	P	Rock ring			AF	Qf2
0961	AZ R:15:220(ASM)	95	E	P	Lithic scatter			PD	QTP
0962	AZ R:15:221(ASM)	95	E	P	Rock ring	Lithic scatter		AF	Qf1
0963	AZ R:15:222(ASM)	95	E	H	Rock alignment	Historic artifact scatter		MH	Br
0964	AZ R:15:223(ASM)	95	E	P	Rock alignment	Rock ring	Lithic scatter	AF	Qf1
0965	AZ R:15:224(ASM)	95	E	P	Lithic scatter			AF	Qf2
0966	AZ R:15:225(ASM)	95	E	P	Trail segment	Cleared area	Rock cluster	AF	Qf2
0967	AZ X:4:76(ASM)	102	U	P	Trail segment			AF	Qf2
0968	AZ X:4:77(ASM)	102	U	P	Rock ring			AF	Qf1
0969	AZ X:4:78(ASM)	102	U	P	Rock ring			AF	Qf1
0970	AZ X:4:79(ASM)	102	U	P	Trail segment			AF	Qf1
0971	AZ X:4:80(ASM)	102	U	P	Rock ring			AW	Qf5
0972	AZ X:4:81(ASM)	102	U	P	Rock feature			AW	Qf5
0973	AZ X:4:82(ASM)	102	U	P	Trail segment			AF	Qf2
0974	AZ X:4:83(ASM)	102	U	P	Rock ring			AF	Qf1
0975	AZ X:4:84(ASM)	102	U	P	Rock ring			AF	Qf2
0976	AZ X:4:85(ASM)	102	U	P	Rock ring			AF	Qf1
0977	AZ X:4:86(ASM)	102	U	P	Rock ring			AF	Qf2
0978	AZ X:4:87(ASM)	102	U	P	Rock ring			AF	Qf1
0979	AZ X:4:88(ASM)	102	U	P	Rock ring			AF	Qf1
0980	AZ X:4:89(ASM)	102	U	P	Rock ring			AF	Qf2
0981	AZ X:4:90(ASM)	102	U	P	Rock feature			AF	Qf2
0982	AZ X:4:91(ASM)	102	U	P	Rock rings			AF	Qf2
0983	AZ X:4:92(ASM)	102	U	P	Rock ring			AF	Qf1
0984	AZ X:4:93(ASM)	102	U	P	Rock ring			AF	Qf1
0985	AZ X:4:94(ASM)	102	U	P	Rock ring			AW	Qf5
0986	AZ X:4:95(ASM)	102	U	P	Trail segment			AF	Qf1
0987	AZ X:4:96(ASM)	102	U	P	Trail segment			AF	Qf1
0988	AZ X:4:97(ASM)	102	U	P	Trail segment			AW	Qf5
0989	AZ X:4:98(ASM)	102	U	P	Rock feature			AF	Qf1
0990	AZ X:4:99(ASM)	102	U	P	Rock ring			AF	Qf1
0991	AZ X:4:100(ASM)	102	U	P	Rock ring/platform			AF	Qf1
0992	AZ X:4:101(ASM)	102	U	P	Rock mound	Cleared area (square)		AF	Qf1
0993	AZ X:4:102(ASM)	102	U	P	Rock-earth mounds -			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
					probable hearths				
0994	AZ X:4:103(ASM)	102	U	P	Rock features			AF	Qf1
0995	AZ X:4:104(ASM)	102	U	P	Rock rings			AF	Qf1
0996	AZ Y:1:24(ASM)	102	U	P	Trail segment			AF	Qf2
0997	AZ Y:1:25(ASM)	102	U	P	Rock ring			AF	Qf1
0998	AZ Y:1:26(ASM)	102	U	P	Trail segment			AF	Qf1
0999	AZ Y:1:27(ASM)	102	U	P	Rock rings			AF	Qf1
1000	AZ Y:1:28(ASM)	102	U	P	Rock ring/platforms			AF	Qf1
1001	AZ Y:1:29(ASM)	102	U	P	Trail segment			AF	Qf1
1002	AZ Y:1:30(ASM)	102	U	P	Trail segment			AF	Qf2
1003	AZ Y:1:31(ASM)	102	U	P	Trail segment			AW	Qf5
1004	AZ Y:1:32(ASM)	102	U	P	Trail segment			AF	Qf2
1005	AZ Y:1:33(ASM)	102	U	P	Trail segment			AF	Qf2
1006	AZ Y:1:34(ASM)	102	U	P	Trail segment			AF	Qf2
1007	AZ Y:1:35(ASM)	102	U	P	Trail segment			AF	Qf1
1008	AZ Y:1:36(ASM)	102	U	P	Trail segment			AF	Qf1
1009	AZ Y:1:37(ASM)	102	U	P	Trail segment			AF	Qf1
1010	AZ Y:1:38(ASM)	102	U	P	Trail segment			AF	Qf1
1011	AZ Y:1:39(ASM)	102	U	P	Trail segment			AF	Qf1
1012	AZ Y:1:40(ASM)	102	U	P	Trail segment			AF	Qf1
1013	AZ Y:1:41(ASM)	102	U	P	Trail segment			AF	Qf1
1014	AZ Y:1:42(ASM)	102	U	P	Trail segment			AF	Qf1
1015	AZ Y:1:43(ASM)	102	U	P	Trail segment			AF	Qf1
1016	AZ Y:1:44(ASM)	102	U	P	Trail segment			AF	Qf2
1017	AZ Y:1:45(ASM)	102	U	P	Trail segment			AF	Qf2
1018	AZ Y:1:46(ASM)	102	U	P	Trail segment			AF	Qf2
1019	AZ Y:1:47(ASM)	102	U	P	Trail segment			AF	Qf2
1020	AZ Y:1:48(ASM)	102	U	P	Trail segment			AF	Qf1
1021	AZ Y:1:49(ASM)	102	U	P	Trail segment			AF	Qf1
1022	AZ Y:1:50(ASM)	102	U	P	Trail segment			AF	Qf1
1023	AZ Y:1:51(ASM)	102	U	P	Trail segment			AF	Qf1
1024	AZ Y:1:52(ASM)	102	U	P	Trail segment			AF	Qf1
1025	AZ Y:1:53(ASM)	102	U	P	Trail segment			AF	Qf1
1026	AZ X:4:105(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1027	AZ Y:1:54(ASM)	102	U	P	Trail segment			AF	Qf1
1028	AZ Y:1:55(ASM)	102	U	P	Trail segment			AF	Qf1
1029	AZ Y:1:56(ASM)	102	U	P	Trail segment			AF	Qf1
1030	AZ Y:1:57(ASM)	102	U	P	Trail segment			AF	Qf1
1031	AZ Y:1:58(ASM)	102	U	P	Trail segment			AF	Qf2
1032	AZ Y:1:59(ASM)	102	U	P	Trail segment			AF	Qf2
1033	AZ Y:1:60(ASM)	102	U	P	Trail segment			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1034	AZ Y:1:61(ASM)	102	U	P	Trail segment			AF	Qf2
1035	AZ Y:1:62(ASM)	102	U	P	Trail segment			AF	Qf2
1036	AZ Y:1:63(ASM)	102	U	P	Trail segment			AF	Qf1
1037	AZ Y:1:64(ASM)	102	U	P	Trail segment			AF	Qf1
1038	AZ Y:1:65(ASM)	102	U	P	Trail segment			AF	Qf2
1039	AZ Y:1:66(ASM)	102	U	P	Trail segment			AF	Qf2
1040	AZ Y:1:67(ASM)	102	U	P	Trail segment			AF	Qf2
1041	AZ Y:1:68(ASM)	102	U	P	Trail segment			AF	Qf2
1042	AZ Y:1:69(ASM)	102	U	P	Trail segment			AF	Qf2
1043	AZ Y:1:70(ASM)	102	U	P	Trail segment			AF	Qf2
1044	AZ Y:1:71(ASM)	102	U	P	Trail segment			AF	Qf2
1045	AZ Y:1:72(ASM)	102	U	P	Trail segment			AW	Qf5
1046	AZ Y:1:73(ASM)	102	U	P	Trail segment			AF	Qf2
1047	AZ Y:1:74(ASM)	102	U	P	Trail segment			AF	Qf2
1048	AZ Y:1:75(ASM)	102	U	P	Trail segment			AF	Qf2
1049	AZ Y:1:76(ASM)	102	U	P	Trail segment			AW	Qf5
1050	AZ Y:1:77(ASM)	102	U	P	Trail segment			AW	Qf5
1051	AZ Y:1:78(ASM)	102	U	P	Trail segment			AW	Qf5
1052	AZ Y:1:79(ASM)	102	U	P	Trail segment			AF	Qf3
1053	AZ Y:1:80(ASM)	102	U	P	Trail segment			AF	Qf3
1054	AZ Y:1:81(ASM)	102	U	H	Road; Wellton-Kofa Road			AF	Qf2
1055	AZ Y:1:82(ASM)	102	U	H	Road; Wellton-Kofa Road			AF	Qf1
1056	AZ Y:1:83(ASM)	102	U	H	Road; Tyson-CD Road			AF	Qf1
1057	AZ Y:1:84(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf2
1058	AZ Y:1:85(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf2
1059	AZ Y:1:86(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf2
1060	AZ Y:1:87(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf2
1061	AZ Y:1:88(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf1
1062	AZ Y:1:89(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf1
1063	AZ Y:1:90(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf1
1064	AZ Y:1:91(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf1
1065	AZ Y:1:92(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf1
1066	AZ Y:1:93(ASM)	102	<i>NE</i>	H	Survey marker			AF	Qf2
1067	AZ Y:1:94(ASM)	102	<i>NE</i>	H	Survey marker			AW	Qf5
1069	AZ Y:1:96(ASM)	102	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf1
1070	AZ Y:1:97(ASM)	102	U	P	Lithic scatter			AF	Qf1
1071	AZ Y:1:98(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1072	AZ Y:1:99(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1073	AZ Y:1:100(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1074	AZ Y:1:101(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1075	AZ Y:1:102(ASM)	102	U	P	Lithic scatter			AF	Qf1



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1076	AZ Y:1:103(ASM)	102	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf1
1077	AZ Y:1:104(ASM)	102	U	P	Trail segment	Lithic scatter		AF	Qf1
1078	AZ Y:1:105(ASM)	102	U	P	Trail segment	Lithic/ceramic scatter		AF	Qf2
1079	AZ Y:1:106(ASM)	102	U	P	Lithic scatter			AF	Qf1
1080	AZ Y:1:107(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf2
1081	AZ Y:1:108(ASM)	102	U	P	Trail segment	Lithic/ceramic scatter		AF	Qf3
1082	AZ Y:1:109(ASM)	102	U	P	Lithic scatter			AF	Qf1
1083	AZ Y:1:110(ASM)	102	U	P	Lithic scatter			AF	Qf2
1084	AZ Y:1:111(ASM)	102	U	P	Trail segment	Rock ring, rock cairn	Lithic scatter	AF	Qf1
1086	AZ Y:1:113(ASM)	102	U	P	Lithic scatter			AF	Qf2
1087	AZ Y:1:114(ASM)	102	U	P	Trail segment	Rock ring		AF	Qf2
1088	AZ Y:1:115(ASM)	102	U	P	Trail segment	Rock ring		AF	Qf1
1089	AZ Y:1:116(ASM)	102	U	P	Trail segment	Rock ring		AF	Qf1
1090	AZ Y:1:117(ASM)	102	U	P	Trail segment	Rock cairn	Lithic scatter	AF	Qf1
1091	AZ Y:1:118(ASM)	102	U	P	Rock ring			AF	Qf1
1092	AZ Y:1:119(ASM)	102	U	P	Rock ring, cleared area	Trail segment	Lithic scatter	AF	Qf1
1093	AZ Y:1:120(ASM)	102	U	P	Rock ring	Trail segment	Ceramic scatter	AF	Qf1
1095	AZ Y:1:122(ASM)	102	U	P	Trail segment	Lithic/ceramic scatter		AF	Qf1
1096	AZ Y:1:123(ASM)	102	U	P	Rock ring	Historic survey cairn		AF	Qf1
1097	AZ Y:1:124(ASM)	102	U	P	Rock ring	Trail segment		AF	Qf2
1098	AZ Y:1:125(ASM)	102	U	P	Trail segment	Lithic scatter		AF	Qf2
1099	AZ Y:1:126(ASM)	102	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf1
1100	AZ Y:1:127(ASM)	102	U	P	Cleared area	Trail segment	Lithic scatter	AF	Qf2
1101	AZ Y:1:128(ASM)	102	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf1
1102	AZ Y:1:129(ASM)	102	U	P	Trail segment	Rock ring, rock cairn	Lithic scatter	AF	Qf2
1103	AZ Y:1:130(ASM)	102	U	P	Rock ring, cleared area	Trail segment	Lithic scatter	AF	Qf2
1104	AZ Y:1:131(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1105	AZ Y:1:132(ASM)	102	U	P	Rock ring, rock cairn	Trail segment	Lithic scatter	AF	Qf2
1107	AZ Y:1:134(ASM)	102	U	P	Rock ring	Trail segment	Lithic scatter	AF	Qf1
1108	AZ Y:1:135(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf1
1109	AZ Y:1:136(ASM)	102	U	P	Rock ring	Lithic scatter		AF	Qf2
1110	AZ Y:1:137(ASM)	102	U	P	Quarry			IN	Br
1112	AZ R:15:239(ASM)	105	NE	H	Rock alignment	Historic artifact scatter	Rock cairn	AF	Qf2
1113	AZ L:12:15(ASM)	105,110	NE	H	Parker-Gila power line			MX	mixed
1122	AZ X:3:391(ASM)	107	NE	P	Cleared area			AF	Qf3
1123	AZ X:3:392(ASM)	107	NE	P	Cleared area			AF	Qf3
1124	AZ X:3:393(ASM)	107	NE	P	Cleared area			AF	Qf3
1125	AZ X:4:106(ASM)	108	E	P	Lithic scatter			AF	Qf1
1126	AZ X:4:107(ASM)	108	E	P	Lithic scatter			AF	Qf1
1127	AZ X:4:108(ASM)	108	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf1
1128	AZ X:4:109(ASM)	108	E	P	Lithic, ceramic scatter			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1129	AZ X:4:110(ASM)	108	E	P	Cleared area			AF	Qf1
1130	AZ X:4:111(ASM)	108	E	P	Lithic scatter			AF	Qf1
1131	AZ X:4:112(ASM)	108	E	P	Lithic, ceramic scatter			AF	Qf1
1132	AZ X:4:113(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1133	AZ X:4:114(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1134	AZ X:4:115(ASM)	108	E	P	Rock cairn	Cleared area	Lithic scatter	AF	Qf1
1135	AZ X:4:116(ASM)	108	E	P	Lithic scatter			AF	Qf1
1136	AZ X:4:117(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1137	AZ X:4:118(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1138	AZ X:4:119(ASM)	108	E	P	Lithic scatter			AF	Qf1
1139	AZ X:4:121(ASM)	108	E	P	Cobble cluster	Lithic scatter		AF	Qf2
1140	AZ X:4:122(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf2
1141	AZ X:4:123(ASM)	108	E	P	Lithic scatter			AF	Qf1
1142	AZ X:4:124(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf2
1143	AZ X:4:125(ASM)	108	E	P	Lithic scatter			AF	Qf1
1144	AZ X:4:126(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1145	AZ X:4:127(ASM)	108	E	P	Cleared area			AF	Qf1
1146	AZ X:4:128(ASM)	108	E	P	Lithic scatter			AF	Qf2
1147	AZ X:4:129(ASM)	108	E	P	Lithic scatter			AF	Qf1
1148	AZ X:4:130(ASM)	108	E	P	Lithic scatter	Ceramic scatter		AF	Qf2
1149	AZ X:4:131(ASM)	108	E	P	Cleared area			AF	Qf1
1150	AZ X:4:132(ASM)	108	E	P	Lithic scatter			AF	Qf2
1151	AZ X:4:133(ASM)	108	E	P	Lithic scatter	Ceramic scatter		AF	Qf1
1152	AZ X:4:134(ASM)	108	E	P	Lithic scatter			AF	Qf1
1153	AZ X:4:135(ASM)	108	E	P	Lithic scatter			AF	Qf1
1154	AZ X:4:136(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1155	AZ X:4:137(ASM)	108	E	P	Lithic scatter			AF	Qf2
1156	AZ X:4:138(ASM)	108	E	P	Lithic scatter			AF	Qf1
1157	AZ X:4:139(ASM)	108	E	P	Lithic scatter			AF	Qf1
1158	AZ X:4:140(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf2
1159	AZ X:4:141(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1160	AZ X:4:142(ASM)	108	E	P	Cleared area			AF	Qf2
1161	AZ X:4:143(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf2
1162	AZ X:4:144(ASM)	108	E	P	Cleared area			AF	Qf2
1163	AZ X:4:145(ASM)	108	E	P	Rock ring, rock cairn	Ground stone production station	Lithic scatter	AF	Qf1
1164	AZ X:4:146(ASM)	108	E	P	Lithic scatter			AF	Qf2
1165	AZ X:4:147(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf1
1167	AZ X:4:149(ASM)	108	E	P	Lithic scatter			AF	Qf2
1168	AZ X:4:150(ASM)	108	E	P	Lithic scatter			AF	Qf1
1169	AZ X:4:151(ASM)	108	E	P	Lithic scatter			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1170	AZ X:4:152(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
1171	AZ X:4:153(ASM)	108	<i>E</i>	P	Rock ring	Cleared area	Lithic scatter	AF	Qf1
1172	AZ X:4:154(ASM)	108	<i>E</i>	P	Cleared area			AF	Qf1
1173	AZ X:4:155(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
1174	AZ X:4:156(ASM)	108	<i>E</i>	P	Rock ring	Cleared area	Lithic scatter	AF	Qf1
1175	AZ X:4:159(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1176	AZ X:4:160(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1177	AZ X:4:161(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1178	AZ X:4:162(ASM)	108	<i>E</i>	P	Cleared area	Lithic/ceramic scatter		AF	Qf2
1179	AZ X:4:163(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
1180	AZ X:4:164(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1181	AZ X:4:165(ASM)	108	<i>E</i>	P	Rock ring	Cleared area	Lithic scatter	AF	Qf1
1182	AZ X:4:166(ASM)	108	<i>E</i>	P	Rock ring			AF	Qf1
1183	AZ X:4:167(ASM)	108	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
1184	AZ X:4:168(ASM)	108	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1185	AZ X:4:169(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
1186	AZ X:4:170(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
1187	AZ X:4:171(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
1188	AZ X:4:172(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1189	AZ X:4:173(ASM)	108	<i>E</i>	P	Ceramic scatter			AF	Qf1
1190	AZ X:4:174(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1191	AZ X:4:175(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf2
1192	AZ X:4:176(ASM)	108	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1193	AZ X:4:177(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
1194	AZ X:4:178(ASM)	108	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1195	AZ X:4:179(ASM)	108	<i>E</i>	P	Rock ring			AF	Qf1
1196	AZ X:4:180(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1197	AZ X:4:181(ASM)	108	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
1198	AZ X:4:182(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf3
1199	AZ X:4:183(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
1200	AZ X:4:184(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1201	AZ X:4:185(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1202	AZ X:4:186(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1203	AZ X:4:187(ASM)	108	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
1204	AZ X:4:188(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf2
1205	AZ X:4:189(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf2
1206	AZ X:4:190(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf2
1207	AZ X:4:191(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1208	AZ X:4:192(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1209	AZ X:4:193(ASM)	108	<i>E</i>	P	Rock ring	Cleared area	Lithic scatter	AF	Qf2
1210	AZ X:4:194(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1211	AZ X:4:195(ASM)	108	E	P	Cleared area			AF	Qf2
1212	AZ X:4:196(ASM)	108	E	P	Rock ring	Cleared area	Lithic scatter	AF	Qf2
1213	AZ X:4:197(ASM)	108	E	P	Lithic scatter			AF	Qf1
1214	AZ X:4:198(ASM)	108	E	P	Lithic scatter			AF	Qf1
1215	AZ X:4:199(ASM)	108	E	P	Lithic scatter			AF	Qf1
1216	AZ X:4:200(ASM)	108	E	P	Rock ring	Lithic scatter		IN	Br
1217	AZ X:4:201(ASM)	108	E	P	Lithic scatter			AF	Qf1
1218	AZ X:4:202(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1219	AZ X:4:203(ASM)	108	E	P	Lithic scatter			AF	Qf1
1220	AZ X:4:204(ASM)	108	E	P	Rock cluster, rock alignment	Cleared area	Lithic scatter	AF	Qf1
1221	AZ X:4:205(ASM)	108	E	P	Lithic scatter			AF	Qf1
1222	AZ X:4:206(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1223	AZ X:4:207(ASM)	108	E	P	Rock cairn	Lithic scatter		AF	Qf1
1224	AZ X:4:208(ASM)	108	E	P	Lithic scatter			AF	Qf1
1225	AZ X:4:209(ASM)	108	E	P	Lithic scatter			AF	Qf1
1226	AZ X:4:210(ASM)	108	E	P	Lithic scatter			AF	Qf2
1227	AZ X:4:211(ASM)	108	E	P	Rock cluster	Lithic scatter		AF	Qf2
1228	AZ X:4:212(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf2
1229	AZ X:4:213(ASM)	108	E	P	Rock ring	Cleared area	Lithic scatter	AF	Qf2
1230	AZ X:4:214(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf2
1231	AZ X:4:215(ASM)	108	E	P	Rock ring	Cleared areas		IN	Br
1232	AZ X:4:216(ASM)	108	E	H	Historic mine w/ numerous features			IN	Br
1233	AZ X:4:217(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1234	AZ X:4:218(ASM)	108	E	P	Cleared area	Lithic/ceramic scatter		AF	Qf2
1235	AZ X:4:219(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1236	AZ X:4:220(ASM)	108	E	P	Rock ring	Cleared area	Lithic scatter	AF	Qf2
1237	AZ X:4:221(ASM)	108	E	P	Cleared area	Lithic scatter		AF	Qf2
1238	AZ X:4:222(ASM)	108	E	P	Lithic scatter			AF	Qf2
1239	AZ X:4:223(ASM)	108	E	P	Rock cairns	Lithic scatter		AF	Qf1
1240	AZ X:4:224(ASM)	108	E	P	Cleared area			AF	Qf2
1241	AZ X:4:225(ASM)	108	E	P	Cleared area	Rock cairn	Lithic scatter	AF	Qf2
1242	AZ X:4:226(ASM)	108	E	P	Cleared area			AF	Qf2
1243	AZ X:4:227(ASM)	108	E	P	Rock ring	Lithic scatter		AF	Qf1
1244	AZ X:4:228(ASM)	108	E	P	Cleared area	Ceramic scatter		AF	Qf2
1245	AZ X:4:229(ASM)	108	E	P	Cleared area			AF	Qf1
1246	AZ X:4:230(ASM)	108	E	P	Cleared area			AF	Qf2
1247	AZ X:4:231(ASM)	108	E	P	Trail segment			AF	Qf2
1248	AZ X:4:232(ASM)	108	E	P	Trail segment			AW	Qf5
1249	AZ X:4:233(ASM)	108	E	P	Trail segment			AF	Qf2
1250	AZ X:4:234(ASM)	108	E	P	Trail segment			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1251	AZ X:4:235(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1252	AZ X:4:236(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1253	AZ X:4:237(ASM)	108	<i>E</i>	P	Trail segment			AW	Qf5
1254	AZ X:4:238(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1255	AZ X:4:239(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1256	AZ X:4:240(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1257	AZ X:4:241(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1258	AZ X:4:242(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1259	AZ X:4:243(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1260	AZ X:4:244(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1261	AZ X:4:245(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1262	AZ X:4:246(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1263	AZ X:4:247(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1264	AZ X:4:248(ASM)	108	<i>E</i>	P	Trail segment			IN	Br
1265	AZ X:4:249(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1266	AZ X:4:250(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1267	AZ X:4:251(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1268	AZ X:4:252(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1269	AZ X:4:253(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1270	AZ X:4:254(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1271	AZ X:4:255(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1272	AZ X:4:256(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1273	AZ X:4:257(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1274	AZ X:4:258(ASM)	108	<i>E</i>	P	Trail segment			AW	Qf5
1275	AZ X:4:259(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1276	AZ X:4:260(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1277	AZ X:4:261(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1278	AZ X:4:262(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1279	AZ X:4:263(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1280	AZ X:4:264(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf1
1281	AZ X:4:265(ASM)	108	<i>E</i>	P	Trail segment			AF	Qf2
1282	AZ X:4:266(ASM)	108	<i>E</i>	P	Rock cluster	Lithic scatter		AF	Qf1
1283	AZ X:4:267(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1284	AZ X:4:268(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1285	AZ X:4:269(ASM)	108	<i>E</i>	P	Lithic scatter			AF	Qf1
1292	AZ X:3:383(ASM)	110	<i>NE</i>	P	Rock ring			BD	QTb
1293	AZ X:3:384(ASM)	110	<i>E</i>	P	Lithic scatter			AP	Qpl
1294	AZ X:3:385(ASM)	110	<i>E</i>	P	Lithic scatter			BD	QTb
1296	AZ R:15:24(ASM)	17, 28	<i>U</i>	P	Trail segment	Lithic/ceramic scatter		AW	Qf5
1299	AZ R:15:242(ASM)	111	<i>NE</i>	m	Historic camp	Lithic scatter (P)		AF	Qf1
1300	AZ R:15:243(ASM)	111,	<i>U</i>	H/P	Military training features	Lithic scatter	Possible cleared area (P)	AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
		117							
1301	AZ X:3:394(ASM)	111	NE	P	Quarry			MH	Br
1302	AZ X:3:395(ASM)	111	NE	m	Military camp features	Mining test feature	Historic trash scatter	MH	Br
1303	AZ X:3:396(ASM)	111	NE	P	Quarry			MH	Br
1304	AZ X:3:397(ASM)	111,117	U	P	Quarry			MH	Br
1305	AZ X:3:398(ASM)	111	NE	H	Military rock enclosures			MH	Br
1306	AZ X:3:399(ASM)	111	U	P	Quarry			BD	QTb
1307	AZ Y:2:37(ASM)	112	E	P	Lithic scatter			AF	Qf2
1308	AZ Y:2:39(ASM)	112	E	P	Rock ring	Trail segment	Lithic scatter	AF	Qf2
1309	AZ Y:2:47(ASM)	112	NE	H	Palomas Road			AF	Qf2
1310	AZ S:14:58(ASM)	112	NE	H	Historic mining camp w/ numerous features			MH	Br
1311	AZ S:14:59(ASM)	112	NE	H	Historic mining camp w/ numerous features	Historic trash scatter		AF	Qf2
1312	AZ S:14:60(ASM)	112	NE	H	Historic mining features	Historic trash scatter		MH	Br
1313	AZ S:14:61(ASM)	112	NE	H	Historic rock alignments	Historic trash scatter	Ceramic scatter	AF	Qf2
1314	AZ S:14:62(ASM)	112	E	P	Lithic scatter			AF	Qf2
1315	AZ S:14:63(ASM)	112	E	P	Petroglyph	Lithic scatter		AF	Qf2
1316	AZ S:14:64(ASM)	112	NE	P	Lithic scatter			AF	Qf2
1317	AZ S:14:65(ASM)	112	NE	H	Mine test pit	Rock cairn		MH	Br
1318	AZ S:14:66(ASM)	112	E	P	Rock cairn	Trail segment	Lithic/ceramic scatter	AF	Qf2
1319	AZ S:14:67(ASM)	112	E	P	Lithic scatter			AF	Qf2
1320	AZ S:14:68(ASM)	112	NE	H	Mine test pit	Historic trash scatter		MH	Br
1321	AZ S:14:69(ASM)	112	NE	H/P	Rock ring	Lithic flake	Rock cairns	AF	Qf2
1322	AZ S:14:70(ASM)	112	E	P	Lithic scatter			AF	Qf2
1323	AZ S:14:71(ASM)	112	E	P	Lithic scatter			AF	Qf2
1324	AZ S:14:72(ASM)	112	E	P	Petroglyph	Lithic scatter		AF	Qf2
1325	AZ S:14:73(ASM)	112	E	P	Trail segment	Lithic scatter		AF	Qf2
1326	AZ Y:2:36(ASM)	112	NE	H/P	Military training area w/ numerous rock features	Lithic scatter		IN	Br
1327	AZ Y:2:38(ASM)	112	NE	H	Historic rock cairns			MH	Br
1328	AZ Y:2:40(ASM)	112	E	P	Lithic scatter			AF	Qf2
1329	AZ Y:2:41(ASM)	112	NE	P	Lithic scatter			AF	Qf2
1330	AZ Y:2:42(ASM)	112	E	H	Military WWII training area w/ numerous features & artifact scatter	Cleared area	Lithic scatter	AF	Qf2
1331	AZ Y:2:43(ASM)	112	E	H	Military training area	Earthen berm	Bullets	AF	Qf2
1332	AZ Y:2:44(ASM)	112	NE	P	Rock cairn	Lithic flake		AF	Qf2
1333	AZ Y:2:45(ASM)	112	E	H/P	Cleared area, rock ring	Lithic scatter	Historic trash scatter	AF	Qf2
1334	AZ Y:2:46(ASM)	112	NE	H	Rock ring			AF	Qf3
1335	AZ R:11:79(ASM)	113	U	P	Cleared area	Rock cluster	Lithic scatter	MH	Br

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1336	AZ R:11:80(ASM)	113	U	P	Rock ring			AF	Qf2
1337	AZ R:11:81(ASM)	113	E	P	Cleared area, rock ring, rock cairn	Lithic/ceramic scatter		AF	Qf2
1338	AZ R:11:82(ASM)	113	E	P	Trail segment			AF	Qf2
1339	AZ R:11:83(ASM)	113	E	P	Rock ring	Lithic/ceramic scatter		MH	Br
1340	AZ R:11:84(ASM)	113	U	P	Rock ring, rock cluster, rock alignment	Lithic scatter		AF	Qf2
1341	AZ R:11:85(ASM)	113	U	P	Rock ring	Lithic scatter		AF	Qf2
1342	AZ R:11:86(ASM)	113	U	P	Rock alignment	Rock cairn		MH	Br
1343	AZ R:11:87(ASM)	113	E	P	Rockshelter	Petroglyph	Lithic scatter	MH	Br
1344	AZ R:11:88(ASM)	113	E	H/P	Cleared area	Rock ring, rock cluster	Lithic/ceramic scatter	AF	Qf2
1345	AZ R:11:89(ASM)	113	E	P	Trail segment			AF	Qf2
1347	AZ R:11:91(ASM)	113	E	P	Rock ring	Rock alignment	Lithic scatter	MH	Br
1348	AZ R:11:92(ASM)	113	E	H/P	Rockshelter	Rock cairns, bedrock mortars	Lithic/ceramic scatter	MH	Br
1349	AZ R:11:93(ASM)	113	E	P	Rockshelter	Rock cairns	Historic, lithic/ceramic artifact scatter	MH	Br
1350	AZ R:11:94(ASM)	113	E	P	Lithic scatter	Lithic/ceramic scatter		MH	Br
1351	AZ R:11:95(ASM)	113	E	P	Rockshelter	Lithic/ceramic scatter		MH	Br
1352	AZ R:11:96(ASM)	113	U	P	Rock ring	Rock cluster	Lithic scatter	AF	Qf2
1353	AZ R:11:97(ASM)	113	U	P	Rock ring	Lithic scatter		MH	Br
1354	AZ R:11:98(ASM)	113	U	U	Rockshelter			MH	Br
1355	AZ R:11:99(ASM)	113	U	P	Rock ring			AF	Qf1
1356	AZ R:11:100(ASM)	113	U	P	Rock alignment	Lithic scatter		AF	Qf1
1357	AZ R:11:101(ASM)	113	U	P	Cleared area			AF	Qf2
1358	AZ R:11:102(ASM)	113	U	P	Rock ring			AF	Qf1
1359	AZ R:11:103(ASM)	113	U	P	Rock ring	Rock cluster	Lithic scatter	AF	Qf1
1360	AZ R:11:104(ASM)	113	U	P	Rock cluster	Lithic scatter		AF	Qf1
1361	AZ R:11:105(ASM)	113	U	P	Rock cluster			AF	Qf2
1362	AZ R:11:106(ASM)	113	U	P	Rock cluster			AF	Qf2
1363	AZ R:11:107(ASM)	113	U	P	Rock alignment			AF	Qf2
1364	AZ R:11:108(ASM)	113	E	P	Rock cluster	Lithic scatter		AF	Qf1
1365	AZ R:11:109(ASM)	113	U	P	Rock ring			AF	Qf2
1366	AZ R:11:110(ASM)	113	U	P	Cleared area			AF	Qf1
1367	AZ R:11:111(ASM)	113	U	P	Rock ring			AF	Qf2
1368	AZ R:11:112(ASM)	113	U	P	Cleared area	Lithic scatter		AF	Qf2
1369	AZ R:11:113(ASM)	113	U	P	Rock ring			AF	Qf2
1370	AZ R:11:114(ASM)	113	U	P	Rock ring			AF	Qf2
1371	AZ R:11:115(ASM)	113	U	P	Rock alignment	Lithic scatter		AF	Qf2
1372	AZ R:11:116(ASM)	113	U	P	Rock ring			AF	Qf2
1373	AZ R:11:117(ASM)	113	U	P	Rock alignment			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1374	AZ R:11:118(ASM)	113, 194	U	P	Rock ring			MH	Br
1375	AZ Y:1:139(ASM)	114	E	P	Rock ring			AF	Qf2
1379	AZ X:3:400(ASM)	121	NE	H	Historic rock alignments, rock cairn, cleared area	Ammunition concentration	Survey monuments	IN	Br
1380	AZ X:3:401(ASM)	121, 160	E	P	Lithic, ceramic scatter			MH	Br
1381	AZ X:3:402(ASM)	121, 160	E	P	Lithic scatter			MH	Br
1382	AZ X:3:403(ASM)	121, 160	E	P	Lithic scatter			AP	Qpl
1383	AZ X:3:404(ASM)	121, 160	E	P	Lithic scatter			BD	QTb
1384	AZ X:3:405(ASM)	121, 160	E	P	Lithic scatter			BD	QTb
1385	AZ X:3:406(ASM)	121, 160	E	P	Lithic scatter			BD	QTb
1386	AZ X:3:407(ASM)	121, 160	E	P	Lithic scatter			BD	QTb
1387	AZ X:3:408(ASM)	121	NE	H	Historic rock alignments	Military targets		MH	Br
1388	AZ X:3:409(ASM)	121	NE	H/P	Military target site w/ numerous features	Trail segments (P)		MH	Br
1389	AZ X:3:410(ASM)	121	NE	H	Trail segment			AF	Qf1
1390	AZ 050-895	194	U	P	Cleared areas			AW	Qf5
1391	AZ 050-903		U	P	Rock ring			MH	Br
1392	AZ 050-910		U	P	Rock ring			AF	Qf2
1393	AZ 050-912		U	P	Rock ring			AF	Qf1
1395	AZ 050-1100		U	P	Cleared area	Lithic scatter		AF	Qf1
1396	AZ 050-1101		U	P	Rock ring	Lithic scatter		AF	Qf1
1397	AZ 050-1102		U	P	Lithic scatter			AF	Qf1
1398	AZ 050-1103		U	P	Lithic scatter			AF	Qf1
1399	AZ 050-1104		U	P	Cleared area	Rock alignment		AF	Qf1
1400	AZ 050-1105		U	P	Rock ring	Rock alignments, clusters	Lithic scatter	AF	Qf2
1401	AZ 050-1106		U	P	Lithic scatter			AF	Qf1
1402	AZ 050-1107		U	P	Lithic scatter			AF	Qf1
1403	AZ 050-1108		U	P	Trail segment	Cleared area, rock alignment	Lithic scatter	AF	Qf2
1404	AZ 050-1109		U	P	Trail segment	Cleared area, rock ring, rock cluster	Lithic scatter	AF	Qf2
1405	AZ 050-1110			H/P	Cleared areas, rock clusters	Trail segment	Lithic/ceramic scatter	AF	Qf2



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1406	AZ 050-1111		NE	P	Cleared area	Lithic scatter		AF	Qf2
1407	AZ 050-1112		U	P	Cleared area			AF	Qf2
1408	AZ 050-1113		U	P	Trail segment	Lithic scatter		AF	Qf1
1409	AZ R:15:27(ASM)	17, 28	U	P	Cleared area	Lithic scatter		AF	Qf2
1410	AZ R:15:28(ASM)	17, 28	U	P	Ceramic scatter			AF	Qf2
1411	AZ 050-1116		U	P	Cleared area	Rock ring		AF	Qf1
1412	AZ R:15:26(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1413	AZ 050-1118		U	H/P	Cleared area, rock ring	Lithic scatter	Historic trash scatter & features	AF	Qf1
1414	AZ 050-1119		U	P	Cleared area	Trail segment	Lithic scatter	AF	Qf1
1415	AZ 050-1120		U	P	Cleared area	Rock alignment		AF	Qf2
1416	AZ 050-1121		U	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
1417	AZ 050-1122		U	P	Trail segment	Rock ring	Rock cluster	MH	Br
1418	AZ 050-1123		U	H/P	Trail segment	Historic hunting blinds	Cleared area, rock ring, rock alignment	MH	Br
1419	AZ 050-1124		NE	P	Cleared area			AF	Qf2
1420	AZ 050-1125		U	P	Cleared area			AF	Qf2
1421	AZ 050-1126		U	P	Lithic scatter			AF	Qf2
1422	AZ 050-1127		U	P	Trail segment	Cleared area, rock cluster, rock alignment	Lithic scatter	AF	Qf1
1423	AZ 050-1128		U	H/P	Historic stream diversion structure	Rock cluster, rock alignment, trail segment	Lithic scatter	AF	Qf1
1424	AZ 050-1129		U	H/P	Cleared area	Historic artifact scatter		AW	Qf5
1425	AZ 050-1130		U	P	Cleared area	Lithic scatter		AF	Qf1
1426	AZ 050-1131		U	P	Trail segment	Cleared area	Lithic scatter	AF	Qf2
1427	AZ 050-1133		U	P	Trail segment	Cleared area, rock cluster	Lithic scatter	AF	Qf1
1428	AZ 050-1134		U	P	Trail segment	Lithic scatter		AF	Qf1
1429	AZ 050-1135		U	P	Trail segment	Cleared area	Lithic scatter	AF	Qf1
1430	AZ 050-1136		U	P	Rock ring	Lithic scatter		AF	Qf1
1431	AZ 050-1137		U	P	Cleared area	Rock ring	Lithic scatter	AW	Qf5
1432	AZ 050-1138		U	P	Rock ring	Lithic scatter		AW	Qf5
1433	AZ 050-1139		U	P	Rock ring	Lithic scatter		AF	Qf1
1434	AZ 050-1140		U	P	Lithic scatter			AF	Qf1
1435	AZ 050-1141		U	P	Trail segment			AF	Qf2
1436	AZ 050-1142		U	P	Lithic scatter			AF	Qf1
1437	AZ 050-1143		U	P	Rock ring	Lithic scatter		AF	Qf1
1438	AZ 050-1144		U	P	Lithic scatter			AF	Qf1
1439	AZ 050-1145		U	P	Trail segment	Lithic scatter		AF	Qf2
1440	AZ 050-1146		U	P	Rock ring	Ceramic scatter		AW	Qf5

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1441	AZ 050-1147		U	P	Cleared area	Lithic scatter		MH	Br
1442	AZ R:15:25(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1443	AZ 050-1148		U	P	Lithic scatter			MH	Br
1444	AZ 050-1149		U	P	Lithic scatter			AF	Qf1
1445	AZ 050-1150		U	P	Cleared area	Lithic scatter		AF	Qf2
1446	AZ 050-1151		U	P	Trail segment	Rock alignment	Lithic/ceramic scatter	AF	Qf1
1447	AZ 050-1152		U	P	Trail segment	Rock ring, rock cluster	Lithic/ceramic scatter	AF	Qf2
1448	AZ 050-1153		U	P	Trail segment	Cleared area, rock ring, rock alignment	Lithic/ceramic scatter	AF	Qf1
1449	AZ 050-1154		U	P	Rock rings, rock alignments, rock clusters	Trail, geoglyph	Lithic/ceramic scatter	AF	Qf1
1450	AZ 050-1155		U	P	Trail segment	Lithic/ceramic scatter		AF	Qf1
1451	AZ 050-1156		U	P	Rock rings, rock alignments, rock clusters	Trail segment	Lithic/ceramic scatter	AF	Qf1
1452	AZ 050-1161		U	P	Petroglyph	Trail segment	Lithic scatter	MH	Br
1453	AZ 050-1162	152	<i>E</i>	P	Rockshelter/alcove	Lithic/ceramic scatter		MH	Br
1454	AZ 050-1163		U	P	Rock ring	Trail segment	Lithic/ceramic scatter	AF	Qf1
1455	AZ 050-1164		U	P	Trail segment	Lithic/ceramic scatter		AF	Qf1
1456	AZ 050-1165		U	P	Rock rings, cleared areas, rock alignments	Trail segment	Lithic/ceramic scatter	MH	Br
1457	AZ 050-1166		U	P	Rock rings, cleared areas, rock alignments	Trail segment	Lithic scatter	AF	Qf1
1458	AZ 050-1167		U	P	Cleared areas	Trail segment	Lithic scatter	AF	Qf2
1459	AZ 050-1168		U	P	Rock ring	Lithic scatter		AF	Qf2
1460	AZ 050-1169		U	P	Cleared area, rock ring	Trail segment	Lithic artifact	AF	Qf2
1461	AZ 050-1170		U	P	Cleared areas, rock ring	Lithic scatter		AF	Qf2
1462	AZ 050-1171		U	P	Rock ring			AF	Qf2
1463	AZ 050-1173		U	P	Rock ring			AF	Qf3
1464	AZ 050-1174		U	P	Cleared area	Trail segment		AW	Qf5
1465	AZ 050-1175		U	P	Cleared areas, rock alignments	Trail segment	Lithic scatter	AF	Qf2
1466	AZ 050-1176		U	P	Trail segment	Lithic scatter		AF	Qf2
1467	AZ 050-1177		U	P	Cleared areas	Trail segment	Lithic scatter	AF	Qf2
1469	AZ 050-1179		U	P	Trail segment				
1470	AZ 050-1180		U	P	Rock rings	Trail segment	Lithic scatter	AF	Qf2
1471	AZ 050-1181		U	P	Trail segment			AF	Qf2
1472	AZ Y:1:1(ASM)		U	P	Cleared areas	Trail segment		AW	Qf5
1473	AZ 050-1183		<i>E</i>	P	Cleared area	Trail segment	Lithic scatter	AP	Qpl
1474	AZ 050-1184		<i>E</i>	P	Rock ring	Trail segment	Lithic/ceramic scatter	AP	Qpl
1475	AZ 050-1185		U	P	Trail segment	Lithic/ceramic scatter		AP	Qpl
1476	AZ 050-1186		U	P	Rock ring			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1477	AZ 050-1188		U	P	Cleared area	Lithic/ceramic scatter		AF	Qf2
1478	AZ 050-1189		U	P	Trail segment	Cleared area, rock ring, rock alignment, rock cluster	Lithic scatter	AF	Qf2
1479	AZ 050-1190		U	P	Rock ring	Lithic scatter		AF	Qf2
1480	AZ 050-1191		U	P	Trail segment	Cleared area, rock ring, rock alignment, rock cluster	Lithic scatter	AF	Qf1
1481	AZ 050-1192		U	P	Trail segment	Rock alignment, rock cluster, rock cairn (shrine)	Lithic/ceramic scatter	MH	Br
1482	AZ 050-1193		U	P	Trail segment	Rock cluster	Lithic scatter	MH	Br
1483	AZ 050-1196		U	P	Petroglyph			AF	Qf1
1484	AZ 050-1199		U	P	Trail segment	Cleared area, rock ring	Lithic scatter	AF	Qf2
1485	AZ X:3:535(ASM)		U	P	Trail segment	Lithic scatter		AF	Qf1
1486	AZ 050-1203		U	P	Rock ring			AF	Qf2
1487	AZ 050-1206		U	P	Rock ring			AF	Qf2e
1492	AZ 050-1211		U	P	Cleared area	Rock ring		AF	Qf2
1493	AZ 050-1212		U	P	Trail segment	Cleared area		AF	Qf1
1494	AZ 050-1213		U	P	Trail segment	Rock ring		MH	Br
1495	AZ 050-1214		U	P	Rock ring	Lithic scatter		MH	Br
1496	AZ 050-1215		U	P	Trail segment	Cleared area	Lithic/ceramic scatter	AF	Qf1
1497	AZ 050-1216		U	P	Trail segment	Cleared area	Lithic/ceramic scatter	AF	Qf2
1498	AZ 050-1217		U	P	Trail	Ceramic scatter		AF	Qf2
1505	AZ 050-1224		U	P	Trail segment	Lithic/ceramic scatter		AF	Qf2
1506	AZ 050-1225		U	P	Trail segment	Lithic scatter		AW	Qf5
1507	AZ 050-1227		U	P	Trail segment	Rock ring, rock alignment	Lithic/ceramic scatter	MH	Br
1508	AZ 050-1228		U	P	Trail segment	Cleared area		AF	Qf2
1509	AZ 050-1229		U	P	Cleared area	Rock alignment		AF	Qf2
1510	AZ 050-1230		U	P	Trail segment	Rock alignment		AF	Qf2
1511	AZ 050-1231		U	P	Trail segment	Fire-cracked rock	Lithic scatter	AF	Qf2
1512	AZ 050-1232		U	P	Trail segment			AF	Qf1
1513	AZ 050-1233		U	P	Trail segment	Fire-cracked rock	Lithic/ceramic scatter	AF	Qf2
1514	AZ 050-1234		U	P	Trail segment	Quarry		AF	Qf2
1515	AZ 050-1235		U	P	Trail segment	Cleared area		AF	Qf2
1516	AZ 050-1236		U	P	Trail segment	Lithic scatter		AF	Qf2
1517	AZ 050-1237		U	P	Trail segment	Rock alignment	Lithic/ceramic scatter	AF	Qf2
1518	AZ 050-1238		U	P	Trail segment	Lithic scatter		BD	QTb
1520	AZ 050-1240	205	NE	P	Trail segment	Cleared area		AF	Qf2
1521	AZ 050-1241		U	P	Ceramic scatter			AP	Qpl

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1522	AZ 050-1244		U	P	Trail segment	Rock ring	Lithic scatter	MH	Br
1524	AZ 050-1246								
1527	AZ 050-1249		U	P	Cleared area	Lithic scatter		AW	Qf5
1529	AZ 050-1251		U	P	Rock ring			AF	Qf2
1530	AZ 050-1252		U	P	Trail segment	Cleared area	Lithic scatter	AF	Qf1
1531	AZ 050-1253	194	U	P	Trail segment	Cleared area	Lithic scatter	AF	Qf2
1532	AZ 050-1254		U	P	Rock ring			AF	Qf2
1533	AZ 050-1255		U	P	Trail segment	Ceramic scatter		AF	Qf2
1534	AZ 050-1256		U	P	Cleared area			AF	Qf1
1535	AZ 050-1257		U	P	Trail segment	Rock ring	Ceramic scatter	AF	Qf1
1536	AZ X:3:4(ASM)		U	P	Trail segment	Ceramic scatter		AF	Qf2
1537	AZ 050-1259		U	P	Trail segment	Cleared area		AF	Qf2
1538	AZ 050-1260		U	P	Trail segment	Cleared area		AW	Qf5
1539	AZ 050-1261		U	P	Trail segment	Cleared area	Rock ring	AF	Qf2
1540	AZ 050-1263		U	P	Trail segment	Cleared area		AF	Qf2
1541	AZ X:3:20(ASM)		U	P	Trail segment, cairn	Cleared area	Lithic/ceramic scatter	MH	Br
1542	AZ 050-1265		U	P	Trail segment	Cleared area		AF	Qf2
1543	AZ 050-1267		U	P	Rock ring			AF	Qf2
1544	AZ 050-1270		U	P	Rockshelter/cave	Fire-cracked rock	Lithic/ceramic scatter	MH	Br
1545	AZ 050-1272		U	P	Caves	Lithic/ceramic scatter		MH	Br
1546	AZ R:7:29(ASM)		U	P	Rock ring			AF	Qf1
1547	AZ R:14:21(ASM)		U	P	Rock ring			AF	Qf1
1548	AZ Y:1:14(ASM)		U	P	Intaglio			AF	Qf2
1549	AZ 050-1296		U	P	Cleared area			AF	Qf2
1550	AZ 050-1297		U	P	Cleared area			AF	Qf2
1551	AZ X:3:87(ASM)	63	E	P	Cleared area			AF	Qf2
1552	AZ X:3:88(ASM)	63	E	P	Cleared area			AF	Qf2
1553	AZ X:3:89(ASM)	63	E	P	Cleared area	Rock cluster		AF	Qf2
1554	AZ X:3:90(ASM)	63	E	P	Cleared area			AF	Qf2
1555	AZ X:3:91(ASM)	63	E	P	Cleared area			AF	Qf2
1556	AZ X:4:34(ASM)	63	E	P	Cleared area	Rock cluster	Lithic/ceramic scatter	AF	Qf2
1557	AZ X:4:35(ASM)	63	E	P	Cleared area	Compressed gravel area	Lithic scatter	AF	Qf2
1558	AZ X:4:36(ASM)	63	E	P	Cleared area	Lithic scatter		AF	Qf2
1559	AZ X:4:37(ASM)	63	U	P	Cleared area	Rock cluster		AF	Qf2
1560	AZ X:4:38(ASM)	63	E	P	Cleared area			AF	Qf2
1561	AZ X:4:39(ASM)	63	E	P	Cleared area	Lithic scatter		AF	Qf2
1562	AZ X:4:40(ASM)	63	E	P	Cleared area			AF	Qf2
1563	AZ X:4:41(ASM)	63	U	P	Cleared area			AF	Qf3
1564	AZ X:4:42(ASM)	63	U	P	Cleared area			AF	Qf3
1565	AZ X:4:43(ASM)	63	E	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1566	AZ X:4:44(ASM)	63	U	P	Cleared area			AF	Qf3
1567	AZ X:4:45(ASM)	63	E	P	Cleared area			AW	Qf5
1568	AZ X:3:92(ASM)	63	E	P	Cleared area			AF	Qf2
1569	AZ X:3:93(ASM)	63	E	P	Cleared area			AF	Qf2
1570	AZ X:3:94(ASM)	63	E	P	Cleared area			AF	Qf2
1571	AZ X:3:95(ASM)	63	E	P	Cleared area			AF	Qf2
1572	AZ X:3:96(ASM)	63	E	P	Cleared area			AF	Qf2
1573	AZ X:3:97(ASM)	63	E	P	Cleared area			AF	Qf2
1574	AZ X:3:98(ASM)	63	E	P	Cleared area	Rock cluster		AW	Qf5
1575	AZ X:3:99(ASM)	63	E	P	Cleared area	Rock cluster		AF	Qf1
1576	AZ X:3:100(ASM)	63	E	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
1577	AZ X:3:101(ASM)	63	E	P	Rock cluster			AF	Qf2
1578	AZ X:3:102(ASM)	63	E	P	Rock cluster			AF	Qf1
1579	AZ X:3:103(ASM)	63	E	P	Cleared area			AF	Qf2
1580	AZ X:3:104(ASM)	63	E	P	Cleared area			AF	Qf2
1581	AZ X:3:105(ASM)	63	E	P	Cleared area			AF	Qf2
1582	AZ X:3:106(ASM)	63	E	P	Rock cluster			AF	Qf2
1583	AZ X:3:107(ASM)	63	E	P	Cleared area			AF	Qf2
1584	AZ 050-26		U	P	Petroglyphs	Artifact scatter	Agave roasting pits	MH	Br
1591	AZ 050-1157		U	P	Rock ring	Lithic scatter		AF	Qf1
1592	AZ 050-1158		U	P	Rock ring			AF	Qf1
1593	AZ 050-1159		U	P	Rockshelters, rock rings	Petroglyph, trail segment	Lithic scatter, milling station	AF	Qf1
1594	AZ 050-1160		E	P	Large archaeological complex			MH	Br
1595	AZ 050-1226		U	P	Trail segment	Lithic scatter	Pot smash	MH	Br
1601	AZ 050-1882		U	P	Rock ring	Lithic scatter		AF	Qf2
1602	AZ X:3:52(ASM); now X:3:110	1992- 002	E	P	Cleared area			AW	Qf5
1603	AZ X:3:53(ASM)	1992- 002	E	P	Cleared area			AW	Qf5
1604	AZ X:3:54(ASM)	1992- 002	E	P	Cleared area			AF	Qf2
1605	AZ X:3:55(ASM)	1992- 002	E	P	Cleared area			AF	Qf1
1610	AZ R:15:85(ASM)	28	U	P	Cleared area			AF	Qf1
1611	AZ R:15:86(ASM)	28	U	P	Lithic scatter			AF	Qf1
1612	AZ R:15:87(ASM)	28	U	P	Quarry			MH	Br
1613	AZ R:15:88(ASM)	28	U	P	Cleared area			MH	Br
1614	AZ R:15:89(ASM)	28	U	P	Cleared area	Rock cluster		MH	Br
1615	AZ R:15:90(ASM)	28	U	P	Rock ring			MH	Br

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1616	AZ R:15:92(ASM)	28	U	P	Rock ring			MH	Br
1617	AZ R:15:91(ASM)	28	U	P	Trail segment	Rock ring		MH	Br
1618	AZ R:15:93(ASM)	28	U	P	Rock cairn			MH	Br
1619	AZ R:15:94(ASM)	28	U	P	Rock cairn			MH	Br
1712	AZ X:3:23(ASM)		U	P	Trail segment	Cleared area		AF	Qf2
1745	AZ R:15:29(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1746	AZ R:15:31(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1747	AZ R:15:32(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1748	AZ R:15:33(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1749	AZ R:15:34(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1750	AZ R:15:35(ASM)	17, 28	U	P	Lithic scatter			MH	Br
1751	AZ R:15:36(ASM)	17, 28	U	P	Lithic scatter			MH	Br
1752	AZ R:15:37(ASM)	17, 28	U	P	Lithic scatter			MH	Br
1753	AZ R:15:38(ASM)	17, 28	U	P	Lithic scatter			MH	Br
1754	AZ R:15:39(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1755	AZ R:15:40(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1756	AZ R:15:41(ASM)	17, 28	U	P	Lithic scatter			AF	Qf1
1757	AZ R:15:42(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1758	AZ R:15:43(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1759	AZ R:15:44(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1760	AZ R:15:45(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1761	AZ R:15:46(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1762	AZ R:15:47(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1763	AZ R:15:48(ASM)	17, 28	U	P	Cleared area			AW	Qf5
1764	AZ R:15:49(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1765	AZ R:15:50(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1766	AZ R:15:51(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1767	AZ R:15:52(ASM)	17, 28	U	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
1768	AZ R:15:53(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1769	AZ R:15:54(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1770	AZ R:15:55(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1771	AZ R:15:56(ASM)	17, 28	U	P	Trail segment	Lithic scatter		AF	Qf2
1772	AZ R:15:57(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1773	AZ R:15:58(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1774	AZ R:15:59(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1775	AZ R:15:60(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1776	AZ R:15:61(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1777	AZ R:15:62(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1778	AZ R:15:63(ASM)	17, 28	U	P	Rock ring			AF	Qf2
1779	AZ R:15:64(ASM)	17, 28	U	P	Rock ring			AF	Qf2
1780	AZ R:15:65(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1781	AZ R:15:66(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1782	AZ R:15:67(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1783	AZ R:15:68(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1784	AZ R:15:69(ASM)	17, 28	U	P	Rock ring	Rock cairn	Lithic scatter	AF	Qf2
1785	AZ R:15:70(ASM)	17, 28	U	P	Rock ring	Lithic scatter		AF	Qf2
1786	AZ R:15:71(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1787	AZ R:15:72(ASM)	17, 28	U	P	Rock ring	Lithic scatter		AF	Qf2
1788	AZ R:15:73(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1789	AZ R:15:74(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1790	AZ R:15:75(ASM)	17, 28	U	P	Rock ring			AF	Qf2
1791	AZ R:15:76(ASM)	17, 28	U	P	Lithic scatter			AW	Qf5
1792	AZ R:15:77(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1793	AZ R:15:78(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1794	AZ R:15:79(ASM)	17, 28	U	P	Lithic scatter			AF	Qf2
1805	AZ R:15:96(ASM)	28	U	P	Rock ring			MH	Br
1813	AZ R:14:219(ASM)	65	<i>E</i>	P	Lithic scatter			AF	Qf1
1814	AZ R:14:220(ASM)	65	<i>E</i>	P	Lithic scatter			AF	Qf1
1815	AZ R:14:221(ASM)	65	<i>E</i>	P	Cleared area	Rock ring, rock cluster	Lithic scatter	AF	Qf2
1816	AZ R:14:222(ASM)	65	<i>E</i>	P	Cleared area	Rock ring, rock cluster	Lithic scatter	AF	Qf1
1817	AZ R:14:223(ASM)	65	<i>E</i>	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
1818	AZ R:14:224(ASM)	65	<i>E</i>	P	Cleared area	Rock ring, rock cluster	Lithic scatter	AF	Qf2
1819	AZ R:14:225(ASM)	65	<i>E</i>	P	Rock ring	Cleared area	Lithic scatter	AF	Qf2
1820	AZ R:14:226(ASM)	65	<i>E</i>	P	Cleared area, compressed gravel area	Rock ring	Lithic scatter	AF	Qf1
1821	AZ R:14:227(ASM)	65	<i>E</i>	P	Rock alignment	Rock cluster	Lithic scatter	MH	Br
1822	AZ R:14:228(ASM)	65	<i>E</i>	P	Rock cluster			AF	Qf1
1823	AZ R:14:229(ASM)	65	<i>E</i>	P	Rock cluster			AF	Qf1
1824	AZ R:14:230(ASM)	65	<i>E</i>	P	Cleared area	Rock cluster		AF	Qf1
1825	AZ R:14:231(ASM)	65	<i>E</i>	P	Cleared area			AF	Qf1
1826	AZ R:14:232(ASM)	65	<i>E</i>	P	Rock ring			AF	Qf2
1827	AZ R:14:233(ASM)	65, 105	<i>E</i>	P	Rock alignment			AF	Qf2
1828	AZ R:14:234(ASM)	65	<i>E</i>	P	Cleared area			AF	Qf2
1829	AZ R:14:235(ASM)	65	<i>E</i>	P	Cleared area			AF	Qf2
1830	AZ R:14:236(ASM)	65	<i>E</i>	P	Rock ring			AF	Qf2
1831	AZ R:14:237(ASM)	65	<i>E</i>	P	Cleared area, compressed gravel area			AF	Qf2
1832	AZ R:14:238(ASM)	65	<i>E</i>	P	Rock cluster	Lithic scatter		AF	Qf1
1833	AZ R:14:239(ASM)	65	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
1834	AZ R:14:240(ASM)	65	<i>E</i>	P	Rock cluster			MH	Br
1835	AZ R:14:241(ASM)	65	<i>E</i>	P	Cleared area	Rock cluster		AF	Qf1
1836	AZ R:14:242(ASM)	65	<i>E</i>	P	Cleared area	Rock cluster		AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1837	AZ R:14:243(ASM)	65	E	P	Cleared area	Rock cluster	Rock ring	AF	Qf1
1838	AZ R:14:244(ASM)	65	E	P	Rock ring			AF	Qf1
1839	AZ R:14:245(ASM)	65	E	P	Rock ring			AF	Qf1
1840	AZ R:14:246(ASM)	65	E	P	Cleared area	Rock ring	Rock cluster	AF	Qf2
1841	AZ R:14:247(ASM)	65	E	P	Rock ring			AF	Qf1
1842	AZ R:14:248(ASM)	65	E	P	Rock cluster			AF	Qf1
1843	AZ R:14:249(ASM)	65	E	P	Rock ring	Rock cluster		AF	Qf1
1844	AZ R:14:250(ASM)	65	E	P	Rock cluster			AF	Qf1
1845	AZ R:15:184(ASM)	65	E	P	Cleared area	Rock ring, rock cluster	Lithic scatter	AF	Qf2
1846	AZ R:15:185(ASM)	65	E	P	Rock ring	Cleared area/compressed gravel area	Lithic scatter	AF	Qf2
1847	AZ R:15:186(ASM)	65	E	P	Cleared area	Compressed gravel area		AF	Qf2
1848	AZ R:15:187(ASM)	65	E	P	Cleared area	Rock ring	Rock cluster	AF	Qf1
1849	AZ R:15:188(ASM)	65	E	P	Cleared area	Rock cluster	Lithic scatter	AF	Qf1
1850	AZ R:15:189(ASM)	65	E	P	Rock ring			MH	Br
1851	AZ R:15:190(ASM)	65	E	P	Cleared area			MH	Br
1852	AZ R:15:191(ASM)	65	E	P	Rock cluster			MH	Br
1853	AZ R:15:192(ASM)	65	E	P	Rock ring	Rock alignment		MH	Br
1854	AZ R:15:193(ASM)	65	E	P	Cleared area	Rock cluster		AF	Qf1
1855	AZ R:15:194(ASM)	65	E	P	Cleared area	Rock cluster		AF	Qf1
1856	AZ R:15:195(ASM)	65	E	P	Cleared area			MH	Br
1857	AZ R:15:196(ASM)	65	E	P	Rock cluster			MH	Br
1858	AZ R:15:197(ASM)	65	E	P	Rock cluster			AF	Qf1
1859	AZ R:15:198(ASM)	65	E	P	Rock cluster			MH	Br
1860	AZ R:15:199(ASM)	65	E	P	Cleared area			AF	Qf2
1861	AZ R:15:200(ASM)	65	E	P	Rock ring			AF	Qf2
1862	AZ R:15:201(ASM)	65	E	P	Rock ring	Rock cluster		AF	Qf1
1863	AZ R:15:202(ASM)	65	E	P	Rock ring			MH	Br
1864	AZ R:15:203(ASM)	65	E	P	Rock cluster			MH	Br
1865	AZ R:15:204(ASM)	65	E	P	Rock ring	Cleared area		AF	Qf1
1866	AZ R:15:205(ASM)	65	E	P	Rock ring			MH	Br
1867	AZ R:15:206(ASM)	65	E	P	Rock ring	Rock cluster		AF	Qf1
1868	AZ R:15:207(ASM)	65	E	P	Rock ring	Rock cluster		AF	Qf1
1869	AZ R:15:208(ASM)	65	E	P	Cleared area	Rock cluster		AW	Qf5
1870	AZ R:15:209(ASM)	65	E	P	Cleared area			AF	Qf1
1871	AZ R:15:210(ASM)	65	E	P	Rock cluster			AF	Qf1
1872	AZ R:15:211(ASM)	65	E	P	Cleared area			AF	Qf1
1873	AZ R:15:212(ASM)	65	E	P	Cleared areas	Rock cluster		AF	Qf1
1874	AZ R:15:213(ASM)	65	E	P	Rock cluster			MH	Br



YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1875	AZ R:15:214(ASM)	65	<i>E</i>	P	Rock cluster			MH	Br
1876	AZ R:15:215(ASM)	65	<i>E</i>	P	Rock ring	Compressed gravel area		MH	Br
1877	AZ R:15:216(ASM)	65	<i>E</i>	P	Cleared area			MH	Br
1934	AZ R:11:44(ASM)	87	<i>U</i>	P	Lithic scatter			AF	Qf1
1935	AZ X:4:275(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1936	AZ X:4:276(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1937	AZ X:4:277(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1938	AZ X:4:278(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1939	AZ X:4:279(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1940	AZ X:4:280(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1941	AZ X:4:281(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1942	AZ X:4:282(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1943	AZ X:4:283(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1944	AZ X:4:284(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1945	AZ X:4:285(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1946	AZ X:4:286(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
1947	AZ X:4:287(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1948	AZ X:4:288(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1949	AZ X:4:289(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1950	AZ X:4:290(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1951	AZ X:4:291(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf3
1952	AZ X:4:292(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf3
1953	AZ X:4:293(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1954	AZ X:4:294(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1955	AZ X:4:295(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1956	AZ X:4:297(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1957	AZ X:4:298(ASM)	124	<i>E</i>	P	Rock alignment, rock cluster	Lithic scatter		AF	Qf1
1958	AZ X:4:299(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1959	AZ X:4:300(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1960	AZ X:4:301(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf3
1961	AZ X:4:302(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1962	AZ X:4:303(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1964	AZ X:4:305(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1965	AZ X:4:306(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1966	AZ X:4:307(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1967	AZ X:4:308(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1968	AZ X:4:309(ASM)	124	<i>E</i>	P	Lithic scatter	Ceramic scatter		AF	Qf1
1969	AZ X:4:310(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1970	AZ X:4:311(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf3
1971	AZ X:4:312(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
1972	AZ X:4:313(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
1973	AZ X:4:314(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1974	AZ X:4:315(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf3
1975	AZ X:4:316(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1976	AZ X:4:317(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1977	AZ X:4:318(ASM)	124	<i>E</i>	P	Trail segment	Lithic scatter		AF	Qf1
1978	AZ X:4:320(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1979	AZ X:4:321(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1980	AZ X:4:322(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1981	AZ X:4:323(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1982	AZ X:4:324(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1983	AZ X:4:325(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1984	AZ X:4:326(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1985	AZ X:4:327(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1986	AZ X:4:328(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1987	AZ X:4:329(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1988	AZ X:4:330(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
1989	AZ X:4:331(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1990	AZ X:4:332(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1991	AZ X:4:333(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1992	AZ X:4:334(ASM)	124	<i>E</i>	P	Lithic scatter	Ceramic scatter		AF	Qf1
1993	AZ X:4:335(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1994	AZ X:4:336(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1995	AZ X:4:337(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1996	AZ X:4:338(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1997	AZ X:4:339(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1998	AZ X:4:340(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
1999	AZ X:4:341(ASM)	124	<i>E</i>	P	Rock ring			AF	Qf2
2001	AZ X:4:343(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2002	AZ X:4:344(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
2003	AZ X:4:345(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2004	AZ X:4:346(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2005	AZ X:4:347(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2006	AZ X:4:348(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2007	AZ X:4:349(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2008	AZ X:4:350(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2009	AZ X:4:351(ASM)	124	<i>E</i>	P	Lithic scatter	Ceramic scatter		AF	Qf2
2010	AZ X:4:352(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
2011	AZ X:4:353(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2012	AZ X:4:354(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter	Ceramic scatter	AF	Qf2
2013	AZ X:4:355(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
2014	AZ X:4:356(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
2015	AZ X:4:357(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2016	AZ X:4:358(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2017	AZ X:4:359(ASM)	124	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf2
2018	AZ X:4:360(ASM)	124	<i>E</i>	P	Trail segment			MH	Br
2019	AZ X:4:361(ASM)	124	<i>E</i>	P	Trail segment			MH	Br
2020	AZ X:4:362(ASM)	124	<i>E</i>	P	Trail segment			AF	Qf1
2021	AZ X:4:363(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2023	AZ X:4:365(ASM)	124	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf1
2024	AZ X:4:366(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2025	AZ X:4:367(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2026	AZ X:4:368(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf1
2027	AZ X:4:369(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2028	AZ X:4:370(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2029	AZ X:4:371(ASM)	124	<i>E</i>	P	Lithic scatter			AF	Qf2
2030	AZ X:4:372(ASM)	124	<i>E</i>	P	Trail segment	Lithic scatter		AF	Qf1
2031	AZ R:14:256(ASM)	127	<i>NE</i>	P	Rock feature			AF	Qf3
2032	AZ R:14:257(ASM)	127	<i>E</i>	P	Trail segment	Cleared area, rock ring	Lithic scatter	AF	Qf2
2033	AZ R:14:258(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf2
2034	AZ R:14:259(ASM)	127	<i>NE</i>	P	Cleared area			AF	Qf2
2035	AZ R:14:260(ASM)	127	<i>NE</i>	P	Cleared area	Rock ring	Lithic scatter	AF	Qf2
2036	AZ R:15:245(ASM)	127	<i>NE</i>	P	Cleared area			AF	Qf2
2037	AZ R:15:246(ASM)	127	<i>NE</i>	P	Lithic scatter	Ceramic scatter		AF	Qf2
2038	AZ R:15:247(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf1
2039	AZ R:15:248(ASM)	127	<i>NE</i>	P	Lithic scatter			AF	Qf2
2040	AZ R:15:249(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf2
2041	AZ R:15:250(ASM)	127	<i>NE</i>	H	Hearth			AF	Qf2
2042	AZ R:15:251(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf2
2043	AZ R:15:252(ASM)	127	<i>E</i>	P	Cleared area	Rock features	Lithic scatter	AF	Qf1
2044	AZ R:15:253(ASM)	127	<i>NE</i>	P	Lithic scatter			AF	Qf2
2045	AZ R:15:254(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf1
2046	AZ R:15:255(ASM)	127	<i>NE</i>	H	Rock cairn			AF	Qf2
2047	AZ R:15:256(ASM)	127	<i>NE</i>	P	Rock ring			AF	Qf2
2048	AZ R:15:257(ASM)	127	<i>NE</i>	P	Rock ring	Lithic scatter		AF	Qf2
2049	AZ R:15:258(ASM)	129	<i>E</i>	P	Rock ring			AW	Qf5
2050	AZ R:11:123(ASM)	131	<i>E</i>	P	Trail segment			AF	Qf2
2051	AZ R:11:124(ASM)	131	<i>E</i>	P	Rock alignment			AF	Qf2
2052	AZ R:11:125(ASM)	131	<i>E</i>	P	Rock ring	Rock alignment		AF	Qf2
2053	AZ X:4:375(ASM)	132	<i>NE</i>	P	Ceramic scatter			AF	Qf2
2054	AZ X:4:376(ASM)	132	<i>NE</i>	P	Trail segment			AF	Qf2
2055	AZ X:4:377(ASM)	132	<i>NE</i>	P	Trail segment			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
2056	AZ X:4:378(ASM)	132	NE	P	Trail segment			AT	Qf4
2057	AZ Y:1:143(ASM)	132	NE	P	Trail segment			AP	Qpl
2058	AZ Y:1:144(ASM)	132	NE	P	Trail segment			AP	Qpl
2059	AZ Y:1:145(ASM)	132	NE	H	Military training area	Trench & depressions	Historic trash scatter	AP	Qpl
2060	AZ Y:1:146(ASM)	132	NE	P	Trail segment			AP	Qpl
2061	AZ R:11:119(ASM)	128	NE	P	Lithic, ceramic scatter			AP	Qpl
2062	AZ R:11:120(ASM)	128	NE	P	Rock ring	Lithic scatter	Ceramic scatter	AP	Qpl
2063	AZ R:11:121(ASM)	128	NE	P	Lithic scatter	Ceramic scatter		AP	Qpl
2064	AZ R:11:122(ASM)	128	NE	H	Military trash dump			AP	Qpl
2065	AZ R:12:8(ASM)	128	NE	H	Historic road segment			AP	Qpl
2066	AZ R:11:126(ASM)	136, 209	NE	H	Military rock lines, walls, clearings			MH	Br
2067	AZ X:3:415(ASM)	151, 157	NE	H	Rock piles	Rock alignment	Historic trash scatter	AF	Qf2
2068	AZ X:3:469(ASM)	159	NE	H	Paved test course			AF	Qf2
2069	AZ L:7:30(ASM)	159	NE	H	Gravel test course			AF	Qf2
2070	AZ X:3:470(ASM)	160	NE	H	Historic trash dump			AP	Qpl
2071	AZ X:3:471(ASM)	160	E	P	Lithic scatter			AP	Qpl
2072	AZ X:3:472(ASM)	164	NE	P	Rock cairn	Lithic scatter		MH	Br
2073	AZ X:3:473(ASM)	164	E	P	Lithic scatter			MH	Br
2074	AZ X:3:474(ASM)	164	NE	H	Historic camp			AF	Qf2
2075	AZ R:11:127(ASM)	175	NE	P	Lithic scatter			AF	Qf1
2076	AZ R:15:259(ASM)	175	NE	H	Hearth			AF	Qf2
2077	AZ R:16:6(ASM)	175	NE	H	Historic can scatter			AW	Qf5
2078	AZ X:3:476(ASM)	170	NE	H/P	Ceramic/lithic scatter	Possible cleared areas		AF	Qf2
2079	AZ X:3:477(ASM)	170	NE	H	Historic artifact scatter	Pit		AW	Qf5
2080	AZ X:3:478(ASM)	170	NE	H	Historic can scatter			AF	Qf2
2081	AZ R:15:260(ASM)	179	NE	P	Cleared area	Lithic scatter		AF	Qf2
2082	AZ R:15:261(ASM)	179	NE	P	Rock ring	Lithic scatter		AF	Qf2
2083	AZ X:3:480(ASM)	187	NE	P	Cleared area			AF	Qf2
2084	AZ X:3:481(ASM)	187	NE	P	Cleared area	Lithic scatter		AF	Qf2
2085	AZ X:4:380(ASM)	187	NE	P	Cleared area	Ceramic scatter		AF	Qf2
2086	AZ X:4:381(ASM)	187	NE	P	Rock ring	Lithic scatter		AF	Qf2
2087	AZ X:4:382(ASM)	187	NE	P	Cleared area			AF	Qf2
2088	AZ X:4:383(ASM)	187	NE	P	Cleared area	Lithic scatter		AF	Qf2
2089	AZ X:4:384(ASM)	187	NE	P	Rock ring	Lithic scatter		AF	Qf1
2090	AZ X:4:385(ASM)	187	NE	P	Cleared area			AF	Qf2
2091	AZ X:4:386(ASM)	187	NE	P	Cleared area	Lithic scatter		AF	Qf2
2092	AZ X:4:387(ASM)	187	NE	P	Cleared area			AF	Qf3
2093	AZ X:4:388(ASM)	187	NE	P	Cleared area			AF	Qf2
2094	AZ X:4:389(ASM)	187	NE	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
2095	AZ R:15:262(ASM)	182	<i>E</i>	P	Cleared areas w/ rock clusters	Rock ring	Rock cluster	AF	Qf2
2096	AZ R:15:263(ASM)	182	<i>E</i>	P	Rock cluster	Lithic scatter		AF	Qf2
2097	AZ R:15:264(ASM)	182	<i>E</i>	P	Rock ring			AF	Qf2
2098	AZ R:15:265(ASM)	182	<i>E</i>	P	Rock ring	Lithic scatter	Ceramic scatter	AF	Qf2
2099	AZ R:15:266(ASM)	182	<i>E</i>	P	Cleared area	Rock ring		AF	Qf2
2100	AZ R:11:134(ASM)	183	<i>E</i>	P	Trail segment	Lithic scatter		AF	Qf2
2101	AZ R:11:135(ASM)	183	<i>NE</i>	P	Cleared area			AF	Qf2
2102	AZ R:11:136(ASM)	183	<i>NE</i>	P	Cleared area	Trail segment		AF	Qf2
2103	AZ R:7:123(ASM)	183	<i>NE</i>	P	Rock ring			AF	Qf2
2104	AZ R:15:267(ASM)	193	<i>NE</i>	P	Rock ring			AF	Qf2
2105	AZ X:3:489(ASM)	189	<i>E</i>	P	Cleared area	Lithic scatter		BD	QTb
2106	AZ X:3:490(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2107	AZ X:3:491(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2108	AZ X:3:492(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2109	AZ X:3:493(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2110	AZ X:3:494(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2111	AZ X:3:495(ASM)	189	<i>NE</i>	H	Historic artifact scatter			AP	Qpl
2112	AZ X:3:496(ASM)	189	<i>E</i>	P	Lithic scatter			AP	Qpl
2113	AZ R:11:137(ASM)	194	<i>E</i>	P	Trail segment			AF	Qf2
2114	AZ R:11:138(ASM)	194	<i>E</i>	P	Lithic scatter	Ceramic scatter		AF	Qf2
2115	AZ R:11:139(ASM)	194	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf3
2116	AZ X:4:62(ASM)	63	<i>E</i>	P	Cleared area			AF	Qf2
2117	AZ 050-1888	63	<i>U</i>	P	Petroglyphs			PD	QTP
2118	AZ X:4:60(ASM)	63	<i>E</i>	P	Rock ring	Lithic scatter		AF	Qf1
2119	AZ X:4:61(ASM)	63	<i>E</i>	P	Cleared area			AW	Qf5
2120	AZ X:4:64(ASM)	63	<i>E</i>	P	Cleared area			AF	Qf3
2121	AZ R:15:218(ASM)	96	<i>NE</i>	P	Rock ring			AF	Qf1
2122	AZ R:15:30(ASM)	17	<i>E</i>	P	Lithic scatter			AF	Qf2
2123	AZ X:3:372(ASM)	190	<i>NE</i>	P	Cleared areas			AF	Qf2
2124	AZ 050-1820	190		P	Rock ring	Trail segment		AF	Qf1
2125	AZ 050-1648	190		P	Seed jar			MH	Br
2126	AZ X:3:499(ASM)	190	<i>NE</i>	P	Cleared area			AF	Qf2
2127	AZ X:3:500(ASM)	190	<i>NE</i>	P	Cleared area			AF	Qf2
2128	AZ X:3:501(ASM)	190	<i>NE</i>	H	Historic artifact scatter			AW	Qf5
2129	AZ X:3:502(ASM)	190	<i>NE</i>	P	Cleared area			AF	Qf2
2130	AZ X:3:503(ASM)	190	<i>NE</i>	H	Historic artifact scatter			AF	Qf2
2131	AZ X:3:504(ASM)	190	<i>E</i>	P	Cleared area	Lithic scatter		AF	Qf2
2132	AZ X:3:505(ASM)	190	<i>NE</i>	P	Lithic scatter			IN	Br
2133	AZ X:3:506(ASM)	190	<i>NE</i>	P	Cleared area			AF	Qf2
2134	AZ X:3:507(ASM)	190	<i>NE</i>	P	Cleared area			AF	Qf2

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
2135	AZ X:3:508(ASM)	190	NE	P	Cleared area			AF	Qf2
2136	AZ X:3:509(ASM)	190	NE	P	Cleared area			AF	Qf2
2137	AZ X:3:510(ASM)	190	NE	P	Cleared area			AF	Qf2
2138	AZ X:3:511(ASM)	190	NE	P	Cleared area			AF	Qf2
2139	AZ X:3:512(ASM)	190	NE	P	Cleared area	Lithic scatter		AF	Qf2
2140	AZ X:3:513(ASM)	190	NE	P	Cleared area			AF	Qf2
2141	AZ X:3:514(ASM)	190	NE	H	Historic artifact scatter			AW	Qf5
2142	AZ X:3:515(ASM)	190	NE	P	Cleared area			AF	Qf2
2143	AZ X:3:516(ASM)	190	NE	P	Cleared area			AF	Qf2
2144	AZ X:3:517(ASM)	190	NE	P	Cleared area			AF	Qf2
2145	AZ X:3:518(ASM)	190	NE	P	Cleared area			AF	Qf2
2146	AZ X:3:519(ASM)	190	NE	P	Cleared area			AF	Qf2
2147	AZ R:10:84(ASM)		E	P	Rock cairn (Rogers' A-29-A)			AF	Qf1
2148	AZ X:3:545(ASM)	205	NE	H	Military rock features	Military trash dump		AW	Qf5
2149	AZ X:3:546(ASM)	205	NE	H	Post WWII tank berm & road			AF	Qf2
2150	AZ R:11:140(ASM)	209	NE	H	Road			AF	Qf3
2151	AZ R:11:141(ASM)	209	NE	H	Road			AP	Qpl
2152	AZ R:11:142(ASM)	209	NE	P	Rock ring	Lithic scatter		MH	Br
2153	AZ R:11:143(ASM)	209	NE	P	Lithic scatter			MH	Br
2154	AZ R:11:144(ASM)	209	NE	H	Military rock constructions	Military trash scatter		AF	Qf2
2155	AZ R:11:145(ASM)	209	NE	H	Military trash deposit			AF	Qf2
2156	AZ R:11:146(ASM)	209	NE	P/H	Military campsite	Ceramic scatter (P)		AF	Qf2
2157	AZ R:11:147(ASM)	209	NE	H	Military trash scatter			AP	Qpl
2158	AZ R:11:148(ASM)	209	NE	P	Bedrock mortars/grinding slick			AF	Qf2
2159	AZ R:11:149(ASM)	209	U	H	Rock cluster	Trash scatter		AF	Qf3
2160	AZ R:11:150(ASM)	209	NE	H	Road			AF	Qf2
2161	AZ R:11:151(ASM)	209	NE	H	Road			AF	Qf2
2162	AZ R:11:152(ASM)	209	NE	H	Road			AP	Qpl
2163	AZ R:11:153(ASM)	209	NE	P	Lithic scatter			MH	Br
2164	AZ R:11:154(ASM)	209	NE	P	Rock alignments			AF	Qf2
2165	AZ R:11:155(ASM)	209	NE	H	Trash dump			AP	Qpl
2166	AZ R:11:156(ASM)	209	NE	H	Road			AP	Qpl
2167	AZ R:11:157(ASM)	209	NE	H	Mine camp	Mining prospect		AP	Qpl
2168	AZ X:3:551(ASM)	219	NE	H	Military rock features	Military trash scatter		AP	Qpl
2169	AZ X:3:552(ASM)	219	NE	H	Military trench, rock features	Military trash scatter		BD	Qtb
2170	AZ X:3:553(ASM)	219	NE	H	Trash dump			AP	Qpl
2171	AZ X:3:554(ASM)	219	NE	H	Trash dump			BD	Qtb
2172	AZ X:3:555(ASM)	219	NE	H	Trail segment	Historic can scatter	Bulldozer scrape	BD	Qtb

YPG Site # (YPG-S-)	ASM or BLM No.	YPG Rpt	NR	Age	Primary Site Type	Secondary Site Type	Tertiary Site Type	Landform	Landform Age
2173	AZ X:3:556(ASM)	219	NE	H	Trash dump			BD	Qtb
2174	AZ X:3:534(ASM)	210	NE	H	Road			AF	Qf1
2175	AZ X:3:535(ASM)	210	NE	P	Trail segment	Lithic scatter		AF	Qf1
2176	AZ X:3:536(ASM)	210	NE	H	Road			AF	Qf2
2177	AZ X:3:537(ASM)	210	NE	H	Trash dump			AW	Qf5
2178	AZ X:3:538(ASM)	210	NE	H	Road			AW	Qf5
2179	AZ X:3:539(ASM)	210	NE	P	Rock cluster	Lithic scatter		AF	Qf4
2180	AZ X:3:540(ASM)	210	NE	P	Rock cluster			AF	Qf3
2181	AZ X:4:390(ASM)	210	NE	P	Lithic scatter			AF	Qf1
2182	AZ X:4:391(ASM)	210	NE	P	Lithic scatter			AW	Qf5
2183	AZ X:4:392(ASM)	210	NE	P	Rock-lined cleared circle	Rock pile		AW	Qf5
2184	AZ R:11:158(ASM)	211	NE	H	Road			AF	Qf2
2185	AZ R:11:159(ASM)	211	NE	H	Road			AF	Qf3
2186	AZ R:11:160(ASM)	211	NE	H	Petroglyph	Military rock features	Mining features	MH	Br
2187	AZ R:11:161(ASM)	211	NE	H	Military training area			AF	Qf2
2188	AZ R:11:162(ASM)	211	NE	P	Lithic scatter			AF	Qf2
2189	AZ R:11:163(ASM)	211	NE	H	Military rock enclosures			MH	Br
2190	AZ R:11:164(ASM)	211	NE	H	Military rock enclosures			AF	Qf3
2191	AZ R:11:165(ASM)	211	NE	P/H	Ceramic/lithic scatter	Historic can scatter		AW	Qf5
2192	AZ R:11:166(ASM)	211	NE	H	Corral			AF	Qf1
2193	AZ S:14:74(ASM)	212	NE	P	Lithic scatter			AF	Qf2
2194	AZ S:14:75(ASM)	212	NE	P	Lithic scatter			AF	Qf2
2195	AZ S:14:76(ASM)	212	NE	H	Road			AF	Qf2
2196	AZ S:14:77(ASM)	212	NE	H	Road			AF	Qf2
2197	AZ X:3:527(ASM)	213	NE	P	Rock ring	Lithic scatter		BD	Qtb
2198	AZ X:3:528(ASM)	213	NE	H	Aircraft crash			MH	Br
2199	AZ X:3:529(ASM)	213	NE	P	Quarry			BD	Qtb
2200	AZ X:3:530(ASM)	213	NE	P	Rock ring	Lithic scatter		AF	Qf1
2201	AZ X:3:531(ASM)	213	E	P	Rock cairn			MH	Br
2202	AZ X:3:532(ASM)	213	NE	H	Rock cairn	Artifact scatter		AW	Qf5
2203	AZ X:3:533(ASM)	213	NE	P	Rock ring			AW	Qf5

## **APPENDIX J**

### **U.S. Army Yuma Proving Ground Commanding Officer's 2004 Instruction Regarding Collection of Natural and Cultural Resources on YPG**



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DEPARTMENT OF THE ARMY  
UNITED STATES ARMY YUMA PROVING GROUND  
301 C STREET  
YUMA AZ 85365-9498

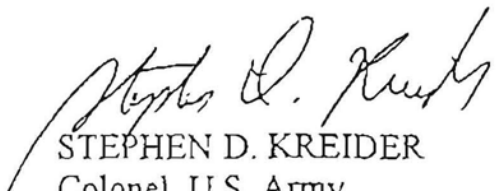
Environmental Sciences Directorate

26 April 2004

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Illegal Collection and Removal of Natural and Historic Resources from YPG

1. It has come to my attention that some folks may believe it is acceptable to remove natural and historical resources from YPG. This is a reminder that it is illegal to remove natural resources such as petrified wood or cultural artifacts from YPG. A variety of federal statutes and DA regulations forbid removing such resources. The only known deposit of petrified wood in western Arizona is located on YPG. The petrified wood deposits, through scientific investigation, can tell us a great deal about the geology, climate and plant life that existed here eons ago. It is a non-renewable resource as are cultural artifacts that are fast disappearing due to illegal removal by collectors and souvenir hunters.
2. If you find something you believe has natural or cultural significance, leave it in place, make note of the location and contact the YPG Conservation Office, 328-2128 or 328-2244.
3. Finally, and of even greater concern, is the risk to your personal safety when you pick up and move items you find on YPG. This installation has been used for military training and testing since the 1940s and unexploded ordnance could be anywhere. The best policy is to avoid anything that appears unnatural and to avoid handling anything you find; no matter how innocuous it appears.
4. I am committed to preserving these resources. Please help us preserve our natural and cultural resources. Leave the things you find for the enjoyment of future generations.

  
STEPHEN D. KREIDER  
Colonel, U.S. Army  
Commanding

DISTRIBUTION:

A

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## **APPENDIX K**

### **U.S. Army Yuma Proving Ground Standard Operating Procedures**

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**Standard Operating Procedure #1****NATIONAL HISTORIC PRESERVATION ACT  
SECTION 106 COMPLIANCE PROCEDURES****OVERVIEW**

Section 106 of the NHPA directs that when federal funds are expended on an undertaking, prior to agency approval of the undertaking, the effect of that undertaking on historic properties must be taken into account. Section 106 also mandates protection of historic properties that have not yet been discovered, as in the instance of buried archaeological deposits. Buried archaeological deposits on federal property are also protected by ARPA, which permits the assessment of criminal penalties for noncompliance. Failure to take the effects of an undertaking on historic properties into account in accordance with NHPA Section 106 and 36 CFR Part 800 can result in formal notification from the Council to the Secretary of the Army of foreclosure of the Council's opportunity to comment on the undertaking pursuant to the NHPA. A notice of foreclosure could potentially be used by litigants against the Army in a manner that can halt or delay critical mission activities.

**POLICY**

For the purposes of this ICRMP, any project or other activity on YPG qualifies as an undertaking if that "project, activity, or program is funded in whole or in part under the direct, or indirect jurisdiction of a federal agency" and if the project or activity has the potential to alter or change the characteristics of a property that is included in or eligible for inclusion in the National Register. Prior to the initiation of any activity on the project site, a person meeting the professional qualification standards established by the Secretary of the Interior (36 CFR Part 61, App. A; included herein as Appendix C) will determine whether or not historic properties are present in the project's APE and will evaluate any discovered archaeological sites or other resources. An APE includes the actual project site as well as adjacent or noncontiguous areas where project activities may affect the character of a historic property.

If historic properties are located within a project APE and the project will have an effect on the historic properties, the Arizona SHPO/THPO, the Council, Native American tribes, and the interested public shall be granted the requisite time declared by law (36 CFR Part 800.1[c]) to comment on this finding, prior to the resumption of project activities (most normal comment periods for each agency is 30 days – this period must be considered before the project or undertaking gets underway. All Native American Consultation will be conducted in accordance with *U.S. Army Guidelines for Consultation with Native Americans, Native Alaskans, and Native Hawaiians* and 36 CFR Part 800.

**SOP #1**

## PROCEDURES

AR 200-1, “Environmental Protection and Enhancement” (Chapter 6, “Cultural Resources”) and *36 CFR Part 800* (as amended in August 2004) are provided as Appendices A and B of the ICRMP.

**Note:** This SOP provides general steps for Section 106 compliance; however, it is not intended to be complete. For details about each step of the process, Appendix B should be followed. Additional useful information can also be found on the Council’s website at: <http://www.achp.gov>.

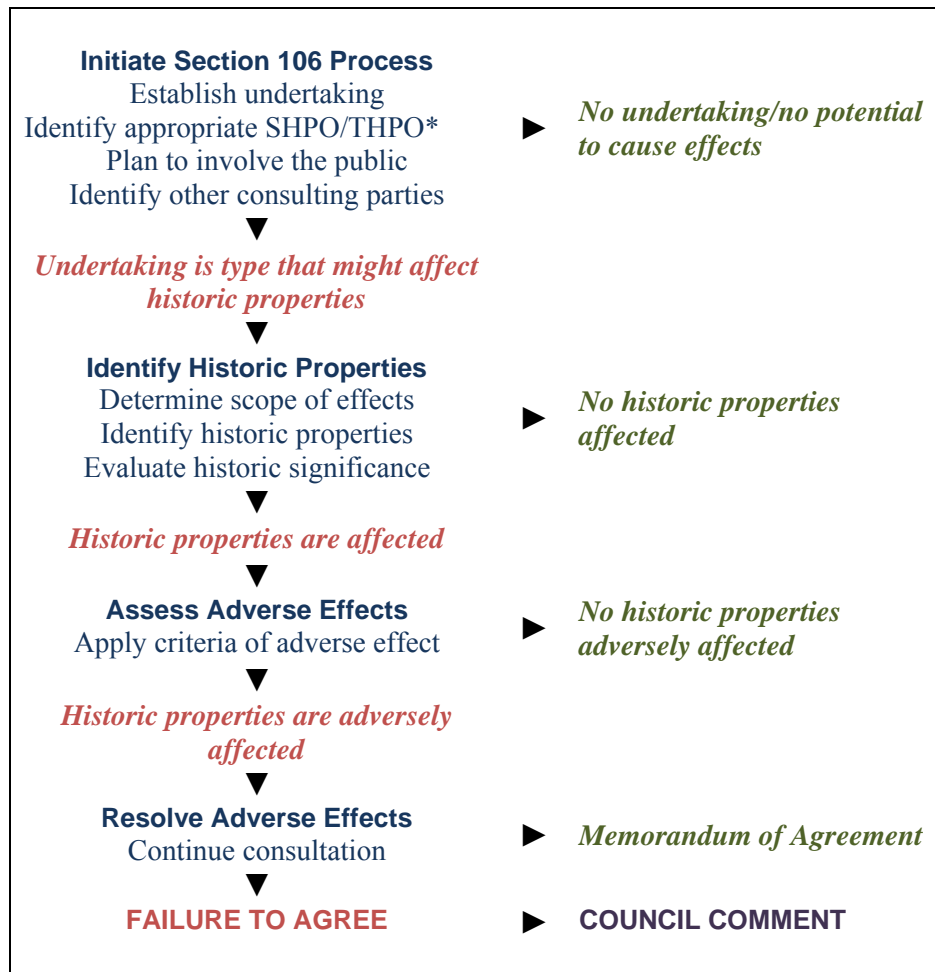
Yuma Proving Ground may comply with Section 106 of NHPA using the process described in Appendix B. The actual implementation of these steps by YPG may vary if a PA or other arrangements are made between the Arizona SHPO/THPO and YPG. PAs are used when projects are recurring; when they will have similar effects, or for large, complex projects. The advantage of a PA is that actions covered by it do not have to be referred to the SHPO/THPO and Council for comment as long as the projects are conducted according to the agreement. In the absence of a PA or an MOA, the implementation process described below is the appropriate method of ensuring YPG’s compliance with federal laws and regulations. A simple flowchart presenting the Section 106 compliance review process is provided as Figure 1.

### **1. Define the Undertaking and Identify Consulting Parties**

Many YPG activities, such as facilities improvements, demolition, new missions, or other ground-disturbing activities may be considered undertakings. Through routine and periodic consultation with the various YPG organizations, the Cultural Resources Manager will be able to identify projects or actions requiring compliance procedures.

### **2. Define the Area of Potential Effect (APE)**

The APE is initially defined prior to identifying whether or not historic properties or other cultural resources are known in the area. It may consist of construction rights-of-way, staging areas, the “viewshed” or visual continuity of a significant building or structure, or noise contours in addition to the direct physical effects of the proposed action. Defining the APE should be reached by consulting with the SHPO/THPO, Council, Native American tribes, and other consulting parties and other interested parties (36 CFR 800.4(a)), including (but not limited to) project managers, engineers and/or the proponents of the undertaking. Following the determinations in Step 2 (described below), the APE may be modified during the planning process to avoid potential effects to historic properties.



Source: <http://www.achp.gov/regsflow.html>

Figure 1. Section 106 Process

### 3. Determine whether Archaeological/Historical Resources Exist Within or Near the Area of Potential Effect

The Cultural Resources Manager or Archaeologist determines whether any prehistoric or historic archaeological resources listed in, or eligible for listing in, the National Register exist within or near the undertaking, or whether further data need to be collected through a cultural resources inventory or other data collection efforts to make such a determination. In consultation with the Arizona SHPO/THPO, Native American tribes, and other consulting parties, the Cultural Resources Manager or Archaeologist determines whether field surveys or other inventory steps are necessary to locate cultural resources (36 CFR 800.4(a)).

- **No cultural resources in the project APE.** If an archaeological survey or other cultural resources assessment has been completed by a qualified professional and the area contains no resources (and little or no potential for subsurface archaeological sites), the Cultural Resources Manager will provide documentation to the SHPO/THPO, Native American tribes, and other consulting parties, in accordance with 36 CFR Part 800 4(d)(1) and make the documentation available for public inspection prior to approving the

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undertaking. If the SHPO does not object within 30 days of receipt of the documentation, YPG can proceed with the undertaking.

- **Presence of historic properties in the project APE.** If an archaeological survey has been completed, and the APE contains historic properties, or has the potential for additional resources to be uncovered, the YPG Cultural Resources Manager will consult with the undertaking's proponent to consider modification of the undertaking to avoid any effects to potential historic properties. If the APE cannot be modified to avoid potential effects, the YPG Cultural Resources Manager will consult with the SHPO/THPO, Native American tribes, and other consulting parties to resolve effects prior to the undertaking taking place (see item 3 of this section).
- If no archaeological survey has been completed, the Cultural Resources Manager will conduct a Class III inventory following the procedures outlined in SOP #5. The Cultural Resources Manager will inform the Arizona SHPO and the project manager of the survey results.

#### 4. Evaluate the National Register Eligibility of Cultural Resources

In accordance with the procedures outlined in 36 CFR Part 800.4(c), YPG conducts the necessary investigations to evaluate National Register eligibility for any archaeological resources identified within the APE, and assesses the effects of the proposed action on identified historic properties.

#### 5. Assess the Effects of the Proposed Action on Significant Cultural Resources (i.e., Historic Properties)

If YPG and the SHPO determine that historic properties are present within the APE, there must be a determination of the effect the undertaking will have on the resources (36 CFR 800.5). There are three possible outcomes:

- **No historic properties affected** (36 CFR 800.4(d)(1)). If YPG determines that no historic properties are present in the APE or that the undertaking will have no effect on historic properties, the Cultural Resources Manager notifies the SHPO/THPO, Native American tribes, and any consulting parties and provides supporting documentation. If no objection is received from the SHPO within 30 days, YPG has no further Section 106 obligation and the undertaking may proceed. If historic properties may be affected or if the SHPO/THPO objects, YPG must request comment and assess effects under 36 CFR 800.5.
- **No adverse effect** (36 CFR 800.5(b)). If YPG determines that there will be no adverse effect, YPG must notify all consulting parties and provide a 30-day period of review. If the SHPO/THPO concurs, YPG may proceed with the undertaking. Failure to respond within 30 days is considered concurrence, and the undertaking may proceed. If the SHPO/THPO does not agree, the YPG Cultural Resources Manager may consult with the SHPO/THPO and/or the undertaking's proponent to avoid the dispute, if possible. If the disagreement cannot be resolved through consultation with these parties, the YPG Cultural Resources Manager or the SHPO/THPO may request Council

comments (36 CFR 800.5(c)(3)). The Council has 15 days to respond as to whether the adverse effect criteria have been correctly applied; however, the Council may request a 15-day extension if the request is made to YPG before the first 15 day period expires (36 CFR 800.5(c)(3)(i)). If the Council does not respond within this period, it is assumed that the YPG determination is correct, and YPG's obligations under Section 106 are complete.

**Note:** As per 36 CFR Part 800 (August 2004 revision), the recovery of data from National Register-listed or eligible archaeological sites no longer qualifies as a "no adverse effect" and is, rather, treated as an adverse effect (i.e., destruction of a historic property).

- **Adverse effects** (36 CFR 800.6). If a finding of adverse effects is made, YPG must consult with the SHPO/THPO, Council, Native American tribes, and other consulting parties to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate the adverse effects.

## 6. Resolving Adverse Effects

Using information gathered in Steps 1 through 4, YPG and the SHPO/THPO would typically develop a PA or an MOA to develop and evaluate alternatives to avoid, minimize, or mitigate adverse effects. YPG also is required to notify the Council and determine Council participation. The Council typically participates when a PA will be prepared per 36 CFR 800.14(b) or if a National Historic Landmark is affected.

- The Cultural Resources Manager and the project manager may agree upon a plan for avoiding adverse effects to the historic properties. Such plans may be developed in accordance with Section 106. If the historic properties can be avoided by relocation of the project to an alternate site, Section 106 review procedures of the new site will be initiated.
- During consultation, the Cultural Resources Manager will provide all concerned parties with documentation required by 36 CFR 800.11(e). This includes a description of the undertaking; a description of the steps taken to identify historic properties; a description of the affected properties; a description of the anticipated effects; an explanation of why the criteria of adverse effects were found applicable or inapplicable; and copies of any views provided by the consulting parties.

### Resolution without Council Participation

Efforts should be made on the part of both YPG and the SHPO/THPO to resolve adverse effects through preparation of a PA/MOA. Agreement documents generally involve treatment of adverse effects, although they may stipulate preparation of a monitoring plan with provisions for subsequent discoveries. Signatories shall include YPG and SHPO/THPO and other invited parties; however, refusal to sign by the invited parties will not invalidate the agreement. Copies are to be provided by YPG to all consulting parties and submitted to Council (36 CFR 800.11[f]) prior to approving the undertaking.

If YPG and SHPO/THPO cannot agree, YPG must ask the Council to participate. If Council decides to participate, all parties would consult to avoid, minimize, or mitigate adverse effects.

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## **Resolution with Council Participation**

If the Council participates to resolve adverse effects, consultation continues until a PA/MOA is developed and executed among all consulting parties. Once executed, the project proceeds following the process outlined in the executed agreement document.

### **7. Failure to Resolve Adverse Effects**

If the consulting parties cannot agree, one or more of the parties may seek to terminate the consultation. The various scenarios that result from this outcome are found in 36 CFR 800.7.

- If YPG terminates consultation, HQDA, Assistant Secretary of the Army or any officer with DA or agency-wide responsibility shall request Council input and notify all parties of the request.
- If the SHPO terminates consultation, YPG and the Council may execute an MOA without further input from the SHPO
- If the Council terminates consultation, the Council must notify all consulting parties and comment.

YPG must document the entire consultation process and consider comments prior to approving the undertaking. Upon completion of this process, the undertaking may proceed.

###

## Standard Operating Procedure #2

# NATIONAL REGISTER EVALUATION STANDARDS

## OVERVIEW

This SOP discusses the general process used to evaluate prehistoric and historic resources for inclusion in the National Register. 36 CFR 60 and National Register Bulletin 15 are the legal bases for these evaluation standards.

## POLICY

Prehistoric and historic resources will be treated in accordance with SOP #1 until the evaluation procedures discussed in this SOP are complete. Prehistoric and historic resources determined, in consultation with the Arizona SHPO/THPO, to be not eligible for inclusion in the National Register will not be protected, although, if feasible, measures will be taken to ensure that the resource has been documented.

## NATIONAL REGISTER SIGNIFICANCE

The National Register of Historic Places documents the appearance and importance of districts, sites, buildings, structures, and objects significant in American prehistory and history. To guide the selection of properties included in the National Register, the National Park Service developed the National Register Criteria for Evaluation. These criteria are standards by which every property that is nominated for inclusion the National Register is judged and are published as 36 CFR 60.4. The four primary criteria are:

**Criterion A** – properties associated with events that have made a significant contribution to the broad patterns of our history

**Criterion B** – properties that are associated with the lives of persons significant in our past

**Criterion C** – properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

**Criterion D** – properties that have yielded or may be likely to yield, information important in prehistory or history.

For a property to qualify for inclusion in the National Register, it must meet one of the above criteria by being associated with an important historic context and by retaining historic integrity of those features necessary to convey its significance.

Guidance for determining whether prehistoric or historic resources are, or are not, eligible for inclusion in the National Register is found in National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*. The National Register eligibility process should be conducted by a professional meeting the Secretary of the Interior's

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Professional Qualification Standards (Appendix D; originally published as 48 FR 44716); however, in general the evaluation process includes:

1. Categorize the property (i.e., is the property a district, site, building, structure, or object)
2. Determine the prehistoric or historic context associated with the property (e.g., archaic period, World War II)
3. Determine with which of the four National Register criteria (A-D) the property is associated
4. Determine if the property represents a type that is typically excluded from National Register eligibility (e.g., the property has been moved)
5. Determine if the property retains sufficient integrity to convey its significance.

###

**Standard Operating Procedure #3****ARCHAEOLOGICAL RESOURCE PROTECTION ACT OF 1979  
COMPLIANCE PROCEDURES****OVERVIEW**

The Archaeological Resources Protection Act (ARPA) prohibits unauthorized excavation, removal, damage, alteration, or defacement of archaeological resources located on federal lands. The looting, damage, sale, purchase, exchange, transport, or receipt of any archaeological resources obtained in violation of this or related laws is a federal felony offense. Penalties imposed for ARPA violations vary, but could reach as high as \$250,000 in fines and 5 years imprisonment.

Unless found in direct physical relationship with other archaeological resources as defined by ARPA, items excluded from this Act include paleontological remains, coins, bullets, and unworked minerals and rocks (32 CFR 229.3). Paleontological remains are protected under the Antiquities Act of 1906 and AR 200-1, Chapter 6(e)(3).

**POLICIES**

Archaeological resources from U.S. Army installations belong to the installation, except where NAGPRA requires repatriation to a lineal descendant or Native American tribe. The Garrison Manager will ensure that Emergency Services, installation legal (CJA), the installation PAO, and the cultural resources management staffs are familiar with the requirements and applicable civil and criminal penalties under ARPA. In instances where proof of violation may be insufficient to obtain a conviction under the Act, or where deemed otherwise advisable, the Staff CJA may choose to assess a civil penalty under the provisions of 32 CFR Part 229.15.

For the purposes of U.S. Army compliance with ARPA, the Garrison Manager is considered the federal land manager as defined in 32 CFR Part 229.3(c). As the federal land manager, the Garrison Manager, in coordination with the installation Cultural Resources Manager or other qualified archaeologist or historic preservation specialist may determine that certain archaeological resources in specified areas under their jurisdiction, and under specific circumstances, are not or are no longer of archaeological interest and are not considered archaeological resources for the purposes of ARPA (in accordance with 32 CFR Part 229.3[a][5]). All such determinations shall be justified and documented by memorandum and shall be formally staffed for review through IMCOM to HQDA (AEC) prior to final determination.

**ARPA PERMIT PROCEDURES**

Individuals wishing to undertake archaeological investigations that may result in the excavation and/or removal of archaeological resources within the YPG boundary must obtain a permit issued by the U.S. Army Corps of Engineers, Los Angeles District, on the approval of the Garrison Manager. The Cultural Resources Manager will monitor the

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field investigations of persons with archaeological permits to ensure compliance with the requirements of 32 CFR Part 229, 43 CFR Part 10 and the terms and conditions of the permits:

- That valid interests of federally recognized Native American tribes on the permitted activity are addressed in a manner consistent with the requirements of the NHPA and NAGPRA
- That permitted activities are performed according to applicable professional standards of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Individuals or organizations undertaking cultural resources investigations under contract to YPG are not required to obtain a permit under the conditions established in 32 CFR Part 229.5(c).

### **PUBLIC NOTICE**

The Cultural Resources Manager will ensure that a brief notice outlining the acts prohibited under ARPA and the criminal penalties assessed under the Act are published in the installation newspaper at least once each calendar year. This notice will reinforce the YPG prohibition of recreational use of metal detectors. Metal detectors can only be used by Army personnel, contractors, or permittees in association with official cultural resource management activities.

### **ANTIQUITIES ACT OF 1906**

Paleontological remains and deposits are considered objects of antiquity pursuant to the Antiquities Act of 1906 (16 U.S.C. 431-433). All paleontological remains and deposits on YPG military installation belong to the installation and are protected under this act from appropriation, excavation, injury, or destruction. The Cultural Resources Manager must be notified of any discovery of remains or deposits suspected to be of paleontological origin and will institute appropriate measures for the protection and preservation of such objects in consultation with the Garrison Manager and HQDA (AEC). Paleontological remains are also protected under AR 200-1, Chapter 6.

###

## Standard Operating Procedure #4

# ARCHAEOLOGICAL INVENTORY PROCEDURES

## OVERVIEW

This SOP establishes the archaeological field and laboratory methods and procedures to be followed for archaeological inventories conducted on lands administered by YPG. Archaeological inventories are generally conducted for the purpose of complying with the NHPA, the ARPA, AR 200-1, and other federal and state laws. These laws require identification and management of cultural resources under the jurisdiction of YPG. YPG is required to take into account the effects of an undertaking on historic properties and to seek approval/concurrence from the SHPO/THPO, afford the Council a reasonable opportunity to comment, consult with tribes that attach traditional religious and cultural significance to historic properties that may be affected by an undertaking.

The inventory phase is commonly referred to as a “survey” because the most common tactic used to discover cultural resource sites is the pedestrian survey. However, the phase itself should not be equated with survey tactics alone, because other kinds of discovery tactics are possible as well. The suite of discovery tactics includes various remote sensing approaches (e.g., aerial photography, ground-penetrating radar), sample excavations (e.g., backhoe trenching, auguring, shovel probing), intensive examination of linear stratigraphic exposures (stream and riverbanks, erosional settings, and road cuts), archival research, and interviews of local key informants.

## POLICIES

All phases of archaeological investigation, including reconnaissance and intensive archaeological survey procedures are defined in the *Secretary of the Interior's Standards and Guidelines for Preservation Planning, Identification, Evaluation, and Registration*.

Where a conflict is found between this SOP and a statement of work in a contract or delivery order, the provisions of the contract or delivery order will apply, so long as the provisions of NHPA, ARPA, and NAGPRA and related federal and state laws are fully met and complied with.

## RESPONSIBILITIES

**The YPG Cultural Resources Manager is responsible for the following:**

- Ensuring that this SOP is implemented by all individuals undertaking inventories on YPG lands.
- Ensuring that the Inventory Class (II or III) is adequate for determining the presence or absence of archaeological and historical resources in the APE.
- Reviewing all survey reports and concurring with any recommendation of eligibility proposed by the investigating individual or organization.

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- Initiating consultation and Section 106 submissions to the Arizona SHPO/THPO, Council, tribes, and other consulting parties.
- Curation of all reports and artifacts resulting from YPG cultural resources projects to meet 36 CFR 79 federal curation standards.

**The Contract Archaeologist is responsible for the following:**

- Ensuring that all activities are conducted under the direct supervision of personnel who meet the applicable professional qualifications standards set forth in *Federal Register*, Volume 62, Number 119 (see Appendix D).
- Obtaining permission from the YPG Cultural Resources Manager to conduct the appropriate level of archaeological work to satisfy the proposed action.
- Conducting inventories in compliance with the guidelines set forth in this SOP and the applicable YPG Scope of Work.

If cultural resources are found as a result of the inventory, the contract archaeologist assesses the potential effects of the action on those resources, recommends properties for inclusion in the National Register (if any), and recommends a treatment plan (mitigation measure) for preserving or protecting historic properties. The contract archaeologist is not responsible for making Section 106 submissions to the SHPO/THPO or the Council. These responsibilities rest with the YPG Cultural Resources Manager. At the conclusion of the project, the contract archaeologist must also provide the YPG Cultural Resources Manager with accurate data so that any identified sites can be added to the YPG GIS database.

**The Proponent of an action is responsible for the following:**

- Funding cultural resources inventories, including Ammunition Recovery escort personnel if required.
- Obtaining permission to conduct cultural resources inventories on non-YPG lands affected by the proposed action. This permission will be obtained through the YPG Cultural Resources Manager.
- With certain exceptions, the proponent is responsible for clearly marking the land use area on the ground by staking, flagging, or some other visible means in advance of cultural resources inventories.
- Funding for government-to-government tribal consultation meetings and other consultation meetings associated with the undertaking.
- Responsible for mitigation of effects associated with the undertaking.

**PROJECT MANAGEMENT PROCEDURES**

These specific procedures will aid the Cultural Resources Manager in tracking projects and reporting those projects and actions to the Garrison Manager and IMCOM.

- Project areas not associated with NHPA Section 106 actions will be selected using either the guidance provided in this ICRMP or as directed by the YPG Cultural Resources Manager.
- The project area will be plotted on the correct topographic map and entered into the GIS database for cultural resources.
- A Project Folder will be set up, which will track all aspects of the project. This folder shall include, but not be limited to, the following YPG forms and subfolders:
  - **Cultural Resources Project Checklist to track task completion dates**
  - **Project Analysis Sheet describing the scope of the project**
  - **Independent Government Cost Estimate**
  - **Contracted Cost Estimate**
  - **Correspondence.**

## **INVENTORY AND SITE RECORDING METHODS**

The following methods of inventory are in accordance with Arizona SHPO guidelines (SHPO 1999) and YPG standards (USAG YPG 2012).

### **Class I Inventory**

A **Class I Inventory** records and literature search will be done in conjunction with all fieldwork; however, the size and scope of the Class I Inventory will be determined by the size and scope of the project.

This search will obtain background information on the known and anticipated distribution of archaeological sites, geological and biological histories, and the prehistoric and historic contexts of the APE.

The search area will include *a minimum of a 1-mile radius around the project area*. Documentary sources may include site lists, files and maps, published and unpublished archaeological, geological and biological reports, as well as historical and personal accounts.

This step will involve consultation with the YPG Cultural Resources Manager, the Arizona SHPO, and/or the BLM to ensure that all pertinent references are reviewed.

### **Class II Inventory**

A **Class II Inventory or Survey** is a sample (field) survey of any size sample or a survey of the entire area that is done with transects more than 20 meters apart. The actual percentage for the Class II is figured by the distance between transects (i.e., coverage on wider transects will be figured on this standard [e.g., transects 100 meters apart would be 20 percent coverage]). According to the Arizona SHPO, most all, if not all, compliance

survey work is expected to be Class III surveys. This means that no matter the size of the project area it must be surveyed with transects of 20 meters or less.

### **Class III Inventory**

The pedestrian survey will consist of intensive interval surface inspection (20-meter transects). As ground visibility decreases from 50 percent, the width of the transects will be reduced accordingly.

### **Recording Forms**

Standard forms required by the Arizona State Museum, as well as additional information and standards related to site survey and recording, can be found at the Arizona State Museum website: <http://www.statemuseum.arizona.edu/crservices/forms.shtml>

### **Mapping**

#### **Topographic Map**

Site location will be indicated on a USGS 7.5-minute quadrangle map.

#### **Site Sketch Map**

The site sketch map should reflect (1) a site's geographic location within primary landforms for identification and relocation purposes, and (2) the location and spatial distribution within the site boundaries of components discussed on the site form. The site sketch map will include, but is not limited to, the following elements:

- Location of the site datum, consisting of a pvc pipe, spike, or iron rod driven flush with the surface to be established in each survey area where archaeological sites are discovered.
- Horizontal site boundaries. Note: Sites extending past survey boundaries will be recorded and mapped in full. Exceptions will be made on a case by case basis.
- Location of collected artifacts or samples taken, if any. Artifacts are very seldom collected at YPG, only when absolutely necessary to protect the cultural, scientific, and historic value of the site, as collection of artifacts is considered an adverse effect at National Register eligible sites (SHPO 2007).
- Locations of significant artifacts, artifact concentrations, or features which are referenced on the site form.
- Areas of disturbance and other impacts within the site.
- Any distinguishing features on or within close proximity to the site. This includes natural topographic features, archaeological features, and modern or historic features.

## **UTM Coordinates**

The differentially corrected UTM coordinates of all elements indicated on the site sketch map and referenced on the site form will be determined using a mobile global positioning system (GPS) unit. The type and model of the GPS unit should be noted.

## **Photo Data**

A minimum of two views of each site must be recorded, one overview and one close-up of a feature or artifacts. Digital photographs are preferred.

View should be selected primarily for identification and relocation purposes. Fixed natural or topographic features or features in the primary setting that are referenced on the site sketch map, such as roads, often prove helpful in relocating a site. Close-up shots of significant features that characterize important aspects of the site (e.g., depositional context, spatial distribution of artifacts) are also valuable for interpretation and data collection. Unless YPG architectural features are the subject of the photo, buildings, structures, and other current military structures should be excluded from photos as much as possible for security reasons.

A Photo Log should be kept, recording all frames, including accidental exposures, such that each photo has a unique number.

## **Artifact Recording and In-field Analysis**

Notable tools (e.g., projectile points, bifaces, flake tools, ground stone, etc.) as well as other diagnostic and/or temporal artifacts (e.g., historic bottles, ceramic hallmarks, etc.) will be sketched and photographed and attached to the final site form. Attributes of individual artifacts to be described in the site form will be left to the discretion of the researcher, but should adhere to acceptable professional standards. The level of detail should be based on the type and condition of the artifact, as well as nature and amount of information currently available from the artifact. Descriptions may include, but are not limited to, source material, tool function, technological and morphological characteristics, dimensions, and diagnostic markings.

## **Isolated Occurrences**

Isolated occurrences are defined as surface finds that do not meet the AZSITE site criteria. The possibility of including them with another nearby site must be an in-field judgment call considering distance and geomorphological context. Isolated occurrences will be reported in tabular format in archaeological survey reports and recorded using Geographic Information Systems (GIS) data. The same collection guidelines as outlined above apply to isolated occurrences as well.

## **Laboratory Procedures**

Artifacts will not be collected unless part of an approved research design for mitigation of effects or an approved ARPA research permit that has gone through the Section 106

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consultation process. Artifacts will be cleaned, labeled, cataloged, and bagged in accordance with accepted museum and curation guidelines. The contractor conducting projects at YPG should follow federal and state curation guidelines. Funds for preparation and curation of cultural materials collected as a result of project work should be built into the project budget from the planning stages.

## **DATA MANAGEMENT**

All archaeological sites identified within the project area will require a Smithsonian trinomial site number obtained from the Arizona State Museum to replace the temporary site number. The site sketch map will be digitized using a GPS unit and the site location will be recorded on the USGS topographic map and in the GIS database at the YPG Cultural Resources office. At the conclusion of the project, metadata will be provided to the YPG Cultural Resources office for accurate entry into the GIS database. Any photo data collected must be processed and compiled. Hard copies of the photo log will be filed in the project folder and individual site folders. Once a YPG project has been completed the originals of reports, field notes, maps, and drawings are the property of YPG.

Site information will be filed by individual sites according to the YPG-issued site number (i.e., YPG-S-xxxxx). The file should include completed Arizona state site forms, field recording forms and notes, photo logs, any associated graphics, and SHPO/THPO and Council concurrence, if necessary.

## **FINAL INVENTORY REPORT**

The Final Inventory Report shall include, but is not limited to:

- A Standard Form (SF) 298, “Documentation Page.”
- A Section 106 Abstract Page: This should be in the format designated by the Arizona SHPO.
- A section or chapter incorporating the results of the Class I Inventory.
- A section or chapter incorporating the results of the Class II or III Inventory.
- A section or chapter addressing National Register evaluations and recommendations of all cultural resources found within the project area.
- A clear and concise map at the scale of 1:24,000 showing the project area without site locations.
- A clear and concise map showing the location of all sites encountered within the project area.
- A clear and concise map showing the location of all isolated occurrences (IOs) encountered within the project area.
- A site sketch map as described in the “Inventory and Site Recording Methods” section of this document.

- Digital color photographs of the site as well as any notable features and/or artifacts.
- Diagnostic/notable artifact sketches, if applicable.
- Continuation sheets and other standard YPG supplemental attachments as stated in the “Inventory and Site Recording Methods” section of this document.

## REFERENCE

### Arizona State Historic Preservation Office

1999 SHPO Administrative Procedure Documentation Submitted for Review in Compliance with Historic Preservation Laws. Electronic document, [http://azstateparks.com/SHPO/downloads/SHPO\\_Survey.pdf](http://azstateparks.com/SHPO/downloads/SHPO_Survey.pdf), accessed March 14, 2012. Arizona State Historic Preservation Office.

2007 SHPO Guidance on Surface Artifact Collection During Survey/Identification Phase. SHPO Guidance Point No. 7. June 25, 2007. Electronic document, [http://azstateparks.com/SHPO/downloads/SHPO\\_7\\_Artifact\\_Col.pdf](http://azstateparks.com/SHPO/downloads/SHPO_7_Artifact_Col.pdf), accessed March 14, 2012. Arizona State Historic Preservation Office, Phoenix.

### U.S. Army Garrison Yuma Proving Ground

2012 U.S. Army Garrison Yuma Proving Ground Archaeological Survey and Report Standards. On file at Environmental Sciences Division, U.S. Army Garrison, Yuma. March 2012.

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## **Standard Operating Procedure #5**

# **INADVERTENT DISCOVERY OF ARCHAEOLOGICAL DEPOSITS**

## **OVERVIEW**

Archaeological investigation methods are designed to discover material evidence of past cultural activities. It is possible; however, that buried archaeological deposits may remain undetected during the survey process, only to be exposed by later construction or other ground-disturbing activities.

## **POLICY**

In the event that archaeological deposits are encountered during any construction or excavation activities, the activity shall stop and the YPG Cultural Resources Manager shall be notified. Because of the potential of each archaeological deposit to contain Native American human remains or cultural materials, failure to report discovery of archaeological deposits may result in violation of NAGPRA, ARPA, and other related federal and state laws resulting in fines and penalties against YPG and its Commander. If it is determined that human remains encountered during a project are not of Native American origin, then the Emergency Services Directorate should be notified immediately. This office will contact the County Medical Examiner or Coroner for further action.

## **PROCEDURES**

When notified of the possible discovery of archaeological deposits or material, the Cultural Resources Manager will visit the discovery site within one working day of notification to examine the discovered material and any in situ deposits. A determination of NAGPRA, ARPA, and NHPA compliance will be made by the Cultural Resources Manager (or a designee [professional contract archaeologist]) upon identification of the discovered material as archaeological or historic in origin. If the Cultural Resources Manager determines that the site contains human remains, funerary objects, sacred objects, or objects of cultural patrimony, the procedures in SOP #8 of this ICRMP will be implemented. If the objects are determined to be not covered under NAGPRA, the procedures outlined in this SOP will be followed:

If, upon examination, the discovered materials are clearly of European-American origin, the Cultural Resources Manager will conduct a test of the discovery site, following procedures outlines in SOP #6. The test will include evaluation of the primary context of the deposit, probable age, and assessment of significance to determine National Register eligibility.

If, upon examination of the recovered material, it appears that the discovered deposits are of natural origin and not of paleontological significance, the Cultural Resources Manager shall advise the project manager that they may proceed with project activities.

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If archaeological materials are present and disturbance has been limited, the Cultural Resources Manager will recommend that the activity be relocated to avoid the site until compliance with the Section 106 process and evaluation for National Register eligibility may be completed. If the activity cannot be relocated, the Cultural Resources Manager shall consult with the Arizona SHPO. Unless the activity is of the nature of an actual emergency (natural disaster or declaration of war), site activity must stop until consultation with the Arizona SHPO and/or Council is completed. Failure to cease activities that intentionally destroy archaeological deposits prior to evaluation and determination of National Register eligibility in accordance with 36 CFR Part 800 may result in fines and penalties under ARPA against the project manager and in some instances the Garrison Manager.

The Cultural Resources Manager will contact the Arizona SHPO to obtain concurrence on the National Register eligibility determination of the site. If both the Arizona SHPO representative and the Cultural Resources Manager agree that the discovered archaeological deposit is not eligible for the National Register, the correspondence will be documented. The Cultural Resources Manager may then advise the project manager to proceed with project activities, although the Cultural Resources Manager will monitor the remainder of excavation activities to ensure that National Register-eligible deposits are protected.

If, in the opinion of either the Arizona SHPO or the Cultural Resources Manager, the recovered materials are of insufficient quantity or otherwise nondiagnostic to make a valid assessment of National Register eligibility, an emergency mitigation plan may be developed by the Cultural Resources Manager, in consultation with the Arizona SHPO. Further ground disturbing activities in the immediate site vicinity shall be halted pending the accomplishment of the emergency mitigation plan. The Cultural Resources Manager may request that an Arizona SHPO representative be present on site to consult directly on the assessment of the site's National Register eligibility. The Arizona SHPO may choose to send a representative to observe the emergency mitigation plan without prior request by the Army, however, access to the site by non-Army personnel must be approved by and coordinated with the cultural resources office.

If the site is determined eligible, or if the Army and the Arizona SHPO cannot reach an agreement on determination of eligibility, the following alternative actions are available:

- Reconsider relocating the project to avoid adverse effect (this is always the preferable course of action).
- Develop a MOA with the Arizona SHPO that specifies the scope and extent of data recovery required to mitigate the project impact.

Where data recovery (mitigation) is limited in scope and such action is amenable to the Arizona SHPO, the Army may elect to proceed without development of an MOA. All aspects of data recovery will be fully documented and reported to the Arizona SHPO in the form of a written report at the termination of data recovery efforts.



When recovery of human remains is considered likely, the Army shall comply with NAGPRA and related federal and state law. Such procedures will be coordinated with the Arizona SHPO and Native American tribes that may be culturally affiliated with the human remains or other items covered under NAGPRA.

The Army may elect to comply with 36 CFR Part 800.13(b), developing and implementing actions that take into account the effects of the undertaking on the property and requesting comments of both the Arizona SHPO and the Council (as appropriate). Section 106 and 36 CFR Part 800 do not require the federal agency to stop work on the undertaking. However, depending on the nature of the property and the undertaking's apparent effects on it, the agency official shall make reasonable efforts to avoid or minimize harm to the property until the requirements of 36 CFR Part 800 are met.

## **SYNOPSIS**

The following synopsis of this SOP shall be made known on all proposed actions and YPG Digging Permit Approval forms:

- There is always the potential for previously unidentified archaeological deposits not discovered during the initial inventory process. If archaeological materials are discovered during construction or excavation activities, the Cultural Resources Manager shall be notified and the materials shall undergo review as required under the NHPA.
- In the event that Native American human remains or cultural items are discovered, federal law directs specific procedures that must be followed and establishes criminal and civil penalties for noncompliance. If human remains are encountered, all project activity on or near the discovery site shall cease immediately. The human remains shall be protected from further disturbance and the Cultural Resources Manager notified immediately.

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**Standard Operating Procedure #6****NATIONAL REGISTER ELIGIBILITY TESTING****OVERVIEW**

The two management goals of a Class III inventory are (1) to locate cultural resources, and (2) to evaluate as many of these resources as possible to determine eligibility for inclusion in the National Register. Data limitations inherently exist in the inventory phase, namely, surface reconnaissance only reveals those features and artifact assemblages that are visible on the surface, so vertical site boundaries cannot be determined and the presence of subsurface cultural deposits can only be surmised. If, due to these limitations, some sites cannot be conclusively demonstrated to have sufficient data content on the surface to be judged eligible for the National Register, then these sites must be tested. Data obtained during testing are collected solely in order to evaluate a site's eligibility for inclusion in the National Register, and not to actually test any scientific hypotheses. The management goal of inventory and testing is very simply to determine site data potential, and therefore National Register eligibility. This SOP establishes the archaeological field and laboratory methods and procedures to be followed for archaeological testing.

**POLICIES**

This stage in archaeological investigations is defined in the *Secretary of the Interior's Standards and Guidelines for Preservation Planning, Identification, Evaluation, and Registration* (48 FR 44716-44728). While a Memorandum of Agreement with the State Historic Preservation Office is not required for this type of testing, nor is consultation required by law, the Arizona SHPO requests that agencies voluntarily consult with their office and with THPOs and Indian tribes on testing plans (Ann Howard, letter to Mr Richard Martin, November 1, 2011). The YPG Cultural Resources Manager may decide to modify the stated procedures outlined in this SOP for a particular project or application. Where a conflict is found between this SOP and a statement of work in a contract or delivery order, the provisions of the contract or delivery order will apply, so long as the provisions of NHPA, ARPA, NAGPRA, and related federal and state laws are fully met and complied with.

An archaeological site predictive model (Bullard et al. 2011) has been developed. Those areas identified by the predictive model as having a high potential for subsurface archaeological sites will be given a higher priority for subsurface testing if eligibility cannot be determined by surface recording. This should not be interpreted as excluding surface sites with no buried components from consideration for nomination to the National Register. Surface sites that meet National Register criteria may not require subsurface testing before such a determination is made.

The two principal characteristics of an archaeological site that serve as the basis for National Register eligibility are the likelihood that the site will contain information

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important to prehistory or history (Criterion D) and site integrity. The information potential of a site is referenced to research questions that are interpreted within the contexts of YPG and the surrounding geographic region. YPG archaeological site research questions focus on regional significance. Testing will be used to conduct a formal evaluation of site significance in accordance with 36 CFR Part 800.4(c). If testing and evaluation indicate that a site does not possess sufficient significance for inclusion in the National Register, the Arizona SHPO will be so advised by written report. All sites determined eligible for nomination to the National Register will be identified as protected sites. Sites determined not eligible for National Register will not be afforded further protection.

## **FIELD METHODS**

In many cases, the key limitation of the inventory phase is that it does not allow for a full determination of site data potential with regards to a subsurface perspective. The set of tactics used for testing consists of controlled manual excavation, intensive surface artifact collection units, and in rare circumstances, testing with mechanical devices (e.g., backhoe or remote-sensing technology). Test units enhance the probability of encountering artifacts and/or features. The stratigraphy of a site is often discernible on the vertical faces of the test unit.

### **Test Units**

Before subsurface excavation ensues, the exact location of the test unit must be determined and mapped using GPS. The test unit locale must be cleared by tech escort and/or explosives ordnance disposal support as determined through a digging permit request. The location of the test unit(s) will be based on the distributions of surface artifact assemblages and visual observation of feature locations. The depositional context, including geomorphologic processes and known stratigraphic sequences, will also be taken into consideration when selecting where to place test units. Much of the information on the potential for intact subsurface cultural materials will be addressed in the predictive model.

The number and configuration of test units will be determined on a case-by-case basis for each site. The number and configuration is determined by (1) the missing, or unknown, data content (e.g., does the site have radiometric samples and macrobotanical remains?), in conjunction with (2) the overall size of the site, and (3) the suspected internal diversity of features and artifacts. The number of test units should be the minimum number necessary to conclusively determine data potential and eligibility. For more information, also see Bilsbarrow (2003).

As a standard, test units generally measure 1 meter by 1 meter each. Depths of pits are determined by empirical site stratigraphy. The maximum depth of test units will be limited to 1.2 meters (4 feet) below the surface unless excavation is being augmented by mechanical excavation and safety shoring, “stepping down” multiple test units, and providing safe ingress and egress methods to meet Occupational Safety and Health Administration regulations (29 CFR 1926.651).

The actual excavation will proceed using arbitrary 10-centimeter intervals until natural stratigraphy can be identified. Each excavation level, arbitrary or natural will be assigned a feature number for discussion in the field notes. Appropriate plan and stratigraphic views will be documented throughout the excavation process.

The excavated sediments will be screened using 1/4-inch and 1/8-inch mesh stacked screens. All artifacts and faunal, lithic, and botanical remains will be collected and labeled with field specimen numbers. Artifacts exposed in situ will be recorded by reference to stratigraphic level and spatial relationship with other artifacts and features on the same horizontal surface. The provenience will be recorded on a plan-view map and photographed with other intact features when possible.

Finally, in order to maximize data recovery, bulk sediment samples will be collected and subjected to analysis for “micro” data sets such as radiocarbon, pollen, phytolith, soil chemistry, and macrobotanical content. Sediment samples will be collected in the field and processed at an appropriate laboratory. The recovered materials will be sent to laboratories with the necessary equipment to conduct the actual analyses. These samples can contain small botanical and environmental “ecofacts” missed by screening. Presence of these data types may be needed to demonstrate a site's data potential to address chronometric, paleoenvironmental, and economic research questions. Bulk sediment samples that are collected must be processed; they will not be curated unless there are compelling reasons to preserve them for future analyses.

### **Intensive Surface Tabulation or Collection Units**

In addition to subsurface test units, intensive recording and/or collection of the surface artifact assemblage may be needed to document remaining uncertainties in overall data potential. The total number, sizes, and configuration of surface sampling units must be determined on a case by case for each site based on missing (or unknown) data content (e.g., does the assemblage have more biface flakes or more core flakes?) together with the size of the site and the diversity of artifacts present. Lithic tabulation sheets will be used to record material types and flaking stages of lithic debitage. The number of surface tabulation units should be the minimum number necessary to conclusively determine data potential and eligibility.

### **Other Testing Procedures**

Other testing procedures may be necessary and appropriate, including, but not limited to aerial photograph interpretation and remote sensing to determine spatial patterning, mechanical stripping, and backhoe excavations when the cultural deposits exceed 1.5 meters.

### **Selecting a Test Method and Evaluation**

Because of the many data limitations associated with testing methods, often a combination can conclusively determine site data potential. In order to select a testing method(s), a prioritized hierarchy of data needs should be determined for each site or location, based on (1) data lacking for the geographic region, and (2) the likelihood of the

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site to yield such information. The data recovered in these testing procedures will then be evaluated to determine eligibility for inclusion in the National Register. Evaluation will proceed according to SOP #2.

#### REFERENCE

Bilsbarrow, Matthew H.

2003 SHPO Position on the Roles of Archaeological Testing. SHPO Guidance Point No. 2. March 17, 2003. Electronic document, [http://azstateparks.com/SHPO/downloads/SHPO\\_2\\_Archae\\_Test.pdf](http://azstateparks.com/SHPO/downloads/SHPO_2_Archae_Test.pdf), accessed September 21, 2010. Arizona State Historic Preservation Office, Phoenix.

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**Standard Operating Procedure #7****ANALYSIS AND CURATION OF CULTURAL MATERIALS****OVERVIEW**

Perhaps the most compelling reason for establishing and maintaining a proper curation facility for archaeological artifacts, aside from the fact that each federal agency is required to do so by law, is that the collected prehistoric and historic material information will be the only lasting evidence of the historical past of YPG. Without proper conservation and storage, archaeological artifacts deteriorate, become misplaced, or are otherwise subject to the many vicissitudes of time.

A curation facility is specifically designed to serve as a physical repository where artifacts are sorted, repackaged, assessed for conservation needs, and then placed in an appropriate, environmentally controlled storage area. Proper curation also includes a review and update of all paper records. An important component of artifact curation is the selection of artifacts for site-specific reference collections. Artifact data is entered into a database, which is an important management and research tool. The overall goal of the federal curation program, as set forth in 36 CFR Part 79, is to ensure the preservation and accessibility of artifacts for use by members of the public interested in the archeology of the region.

AR 200-1 requires the Garrison Manager to ensure that all archaeological collections and associated records, as defined in 36 CFR Part 79.4(a), are processed, maintained, and preserved in accordance with the requirements of 36 CFR Part 79. Currently, YPG itself does not have an artifact repository that meets the standards specified by 36 CFR Part 79. With the exception of one small collection at the San Diego Museum of Man, all artifacts and records have been recovered from various locations, rehabilitated, and cataloged and are housed at the Cocopah Museum Curation Facility. A curation agreement between YPG and the Cocopah facility was signed on October 24, 2005 and is renewed every three years.

**36 CFR PART 79 REPORTING AND INSPECTION REQUIREMENTS****Reporting Requirements**

The annual Secretary of the Interior's report to Congress requires an assessment of archaeological records and materials in federal repositories. YPG's current amount of archaeological material is 36 cubic feet including associated records.

**Status of Curation Funding**

Funding for curation will be provided by the Installation Management Command (IMCOM).

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## **Inspection Requirements**

Inspections of federally curated archaeological collections shall be conducted periodically in accordance with the Federal Property and Administrative Services Act (40 U.S.C. 484), and its implementing regulation (41 CFR Part 101). Consistent with 36 CFR Part 79.11(a), the Cultural Resources Manager shall:

- Periodically inspect the physical environment in which all archaeological materials are stored for the purpose of monitoring the physical security and environmental control measures; assessing the condition of the material remains and associated records, and monitoring those remains and records for possible deterioration and damage.
- Periodically inventory any other U.S. Government-owned property in the possession of the Cultural Resources Manager.

## **ARTIFACT ANALYSIS**

Before permanent curation, all artifacts recovered on YPG will be analyzed using commonly accepted methods for artifacts in the immediate region. Artifact analyses will be consistent with current archaeological research objectives for the region. Collection should be kept to a minimum, conducted in consultation with the Arizona SHPO, and restricted to those artifacts that would be pertinent to assessing relevant regional prehistoric and historic research issues.

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## Standard Operating Procedure #8

# NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT COMPLIANCE

## OVERVIEW

This procedure implements the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA); Public Law 101-601 (25 U.S.C. Sections 3001-3013); *U.S. Army Guidelines for Consultation with Native Americans, Native Alaskans, and Native Hawaiians*; and as amended 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations. NAGPRA mandates that federal land managers must consult with federally recognized Indian tribes regarding planned excavations on federal lands, and establishes procedures that federal agencies must follow in the event of inadvertent discovery of Native American human remains and cultural items. It is important to note that NAGPRA only applies to human remains that can be culturally associated with a modern Native American tribe, and that are not identified as the remains of a historic settler, murder victim, etc. The statute provides a mechanism for determining the disposition for such human remains or cultural items. NAGPRA also forbids the sale of Native American human remains or of cultural items obtained in violations of the statute.

YPG has an active and ongoing consultation relationship with federally recognized Native American tribes who are traditionally affiliated with the lands now occupied by YPG. Draft Comprehensive Agreements (CAs) were prepared for seven of the tribes in 2002 to facilitate consultation with NAGPRA issues; however, the CAs have not been finalized due to concerns expressed by YPG Command personnel and some tribes. As a result, the process for consultation under NAGPRA described within this SOP continues to be conducted on a case-by-case basis.

Yuma Proving Ground provided a Summary Report, as required by NAGPRA, to each of the following tribes on April 23, 1996:

- Ak Chin Indian Community
- Cocopah Indian Tribe
- Colorado River Indian Tribes (CRIT)
- Ft McDowell Yavapai Nation
- Fort Mojave Tribe
- Gila River Indian Community
- Hopi Tribe
- Quechan Tribe of the Fort Yuma Indian Reservation
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- Tohono O'Odham Nation
- Yavapai Apache
- Yavapai-Prescott Indian Tribe

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The purpose of consultation is to establish YPG's NAGPRA responsibilities and address installation land management activities that could result in the inadvertent discovery and disinterment of Native American human remains or cultural items, to establish standard consultation procedures, and provide for the determination of custody, treatment, and disposition of cultural items. YPG is addressing NAGPRA-related issues on the installation on a case-by-case basis since no human remains have been found to date. The sections of this SOP describe procedures to be followed in the event of inadvertent discovery of Native American human remains or associated cultural items.

## **POLICIES**

AR 200-1 states that the Garrison Manager must ensure that intentional excavation and response to any inadvertent discovery of NAGPRA-related cultural items are carried out in compliance with all applicable statutory and regulatory requirements of NAGPRA, ARPA, and the NHPA. Compliance with one statutory requirement, therefore, may not satisfy other applicable requirements. All YPG activities will strictly avoid the disturbance of human burials, whether marked or unmarked. In all instances where avoidance is not possible, YPG shall consult, as outlined by NAGPRA, with the Native American tribes that may be culturally affiliated with the remains or items, on a case-by-case basis. Under no circumstances will any YPG activity be allowed to proceed if it will intentionally disturb a known burial site until such time as consultation between YPG and the Native American tribes is completed in accordance with 25 U.S.C. Section 3002(d) Sec. 3. The YPG CJA will vigorously enforce NAGPRA where illegal trafficking in Native American human remains, associated funerary objects, unassociated funerary objects, sacred objects, or objects of cultural patrimony can be proven.

In accordance with 43 CFR Part 10.3 and AR 200-1, the Garrison Manager shall take reasonable steps to determine whether a planned activity may result in the intentional excavation or inadvertent discovery of cultural items from YPG. When it is determined that these cultural items, which are covered under NAGPRA as determined by YPG in consultation with Native American representatives, may be encountered and, prior to issuing approval to proceed with the activity, the Garrison Manager shall carry out the consultation procedures and planning requirements at 43 CFR Parts 10.3, 10.4, and 10.5 as part of the intentional excavation or inadvertent discovery of cultural items, a written Plan of Action must be prepared in accordance with 43 CFR Part 10.5(e).

If there is no Comprehensive Agreement (CA) in effect that sets forth agreed upon procedure for inadvertent discovery, then the installation must comply with 43 CFR Part 10.4(a-d). Such compliance measures include but are not limited to notifications as described below, cessation of the on-going activity for 30 days in the area of discovery, protection of the discovery, consultation with Native American tribes culturally affiliated with the discovery in accordance with 43 CFR Part 10.5 and preparation of a written Plan of Action. The Garrison Manager must ensure that all authorizations to carry out activities on installation lands include a requirement for the holder of the authorization to notify the Cultural Resources Manager immediately upon the inadvertent discovery of cultural items and to protect such discoveries until applicable compliance procedures are satisfied.

For all activities undertaken on lands managed by YPG, the general policy shall be strict avoidance of all human burials, whether marked or unmarked. For all instances where avoidance is not possible, YPG shall consult, as outlined by NAGPRA, with the Native American tribes that may be culturally affiliated with the remains or items, on a case-by-case basis. Under no circumstances will any activity proceed until consultation between YPG, the Native American tribes, and any other interested parties is undertaken.

### **INTENTIONAL ARCHAEOLOGICAL EXCAVATIONS**

In accordance with 43 CFR Part 10.3(b) the intentional excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal or tribal lands (after November 16, 1990) is permitted only if:

- The objects are excavated or removed following the requirements of the ARPA and its implementing regulations
- The objects are excavated after consultation with or, in the case of tribal lands, consent of, the appropriate Native American tribe or Native Hawaiian organization pursuant to Part 10.5
- The disposition of the objects is consistent with their custody as described in Part 10.6
- Proof of the consultation or consent is shown to the federal agency official (i.e. Garrison Manager) or other official (Cultural Resources Manager) responsible for the issuance of the required permit.

As stated previously in accordance with 43 CFR Part 10.3(c), the Garrison Manager must take reasonable steps to determine whether a planned activity may result in the excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal lands. Any Native American tribe likely to be culturally affiliated with the expected or inadvertently discovered human remains or associated cultural items must be notified.

### **INADVERTENT DISCOVERY NOTIFICATION PROCEDURES**

The YPG employee or contractor who inadvertently discovers human remains must notify the responsible federal official (i.e. the Garrison Manager or Cultural Resources Manager, in accordance with 43 CFR Part 10.4[b]). Certification of receipt of notification by the Garrison Manager or his/her designated representative (Cultural Resources Manager) initiates the 30-day waiting period that must be observed unless a pre-existing CA is in force with the federally recognized Native American tribe(s) who have cultural affiliation with YPG as established by the U.S. Indian Claim Commission final report-1978.

If the inadvertent discovery occurred in connection with an on-going activity on YPG, the person providing the initial notice described above must stop the activity in the area of the inadvertent discovery and make a reasonable effort to protect the human remains, funerary objects, or objects of cultural patrimony discovered inadvertently.

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Upon having received notification of the actual or potential disturbance or the discovery of a human burial site, human remains, or burial goods, YPG shall, as soon as possible, but no later than 3 working days after receipt of the notification with respect to federal lands described in 43 CFR Part 10.4(b-d):

Take immediate steps, if necessary, to further secure and protect inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony, including, as appropriate, stabilization or covering.

Report the receipt of such notification by telephone, with written confirmation, to the appropriate Native American tribe contacts, and the proper Arizona state agencies (Arizona State Museum, Arizona Division of Indian Affairs), as deemed necessary by the YPG Cultural Resources Manager. The notification shall include pertinent information as to kinds of human remains, funerary objects, sacred objects, or objects of cultural patrimony discovered inadvertently, their condition, and the circumstances of their inadvertent discovery. If written notification is provided by certified mail, the return receipt constitutes evidence of the receipt of the written notification by the Native American tribes.

Based upon the information received from the person providing initial notification of the burial discovery, YPG shall additionally inform the appropriate Arizona state agencies as to the exact location and state (condition) of the human burial site, human remains, or burial goods of which notification was received, for the purpose of obtaining their assistance (through a records search) in the possible identification of the deceased.

In the event that YPG, or an appropriate state of Arizona agency (Medical Examiner) duly designated representative, has reason to suspect that the burial contains a victim of a recent prosecutable crime or accidental death, the proper military authorities and YPG CJA office will be notified.

## **INADVERTENT DISINTERMENT PROCEDURES**

The human burial site or its exposed contents must be initially examined by the YPG Cultural Resources Manager (or designee [e.g., professional contract archaeologist]) to attempt to determine the lineal descendants (next-of-kin) or to determine race and age of the remains, if possible, using relevant available and solicited information (e.g., plat, maps, records, interviews with tribal members and landowners knowledgeable of the site in question, associated funerary objects). This initial examination must be conducted in consultation with the Native American tribes.

If a presumption as to Native American lineal descendancy (next-of-kin), or a determination of race and age can be ascertained based upon location, historical data and any associated funerary objects, this information must be used to determine disposition of the human burial site, human remains, or burial goods by YPG and the Native American tribes. The human remains and associated burial goods may be further examined within a scope of study developed in consultation with the duly designated Native American tribe

representative. Disposition must be in accordance with NAGPRA and the procedures described herein.

Within a period designated by NAGPRA from the time YPG has provided notification to the Native American tribes of the actual or potential disturbance or the discovery of a human burial site, human remains, or burial goods, the YPG Cultural Resources Manager and the Native American tribe representative(s) shall commence initial examination of any culturally affiliated human remains not associated or suspected of a crime or accidental death, as determined above, which are the subject of the notification, and shall undertake exclusively the following activities:

- If it cannot be determined by means of such initial examination that the human remains are either Native American or non-Native American, the proper measures as stated in NAGPRA will be used to determine cultural affiliation.
- If it is determined by initial examination that the human remains are non-Native American and non-tribal, the remains will be further examined by the YPG Cultural Resources Manager and the YPG law enforcement personnel. Further study and final disposition of these remains will be at the discretion of YPG. The remains will be turned over to the proper legal authorities if it is determined that a recent crime was committed or suspected. Law enforcement and health officials will recover any remains resulting from a recent prosecutable crime or accidental death (i.e., dehydration/heat stroke).

## REPATRIATION

In accordance with NAGPRA Section 7:

- If, pursuant to Section 5 (of NAGPRA), the cultural affiliation of Native American human remains and associated funerary objects with a particular Native American tribe is established, then YPG, upon the request of a known lineal descendant of the Native American or of the tribe or organization shall expeditiously return such remains and associated funerary objects.
- If, pursuant to Section 6, the cultural affiliation with a particular Native American tribe is shown with respect to unassociated funerary objects, sacred objects or objects of cultural patrimony, then YPG, upon the request of the Native American tribe shall expeditiously return such objects.

The return of cultural items shall be in consultation with the requesting lineal descendant or tribe or organization to determine the place and manner of delivery of such items.

Where cultural affiliation of Native American human remains and funerary objects has not been established in an inventory, then, upon request, such remains and cultural objects shall be expeditiously returned where the requesting Indian tribe can show cultural affiliation by a preponderance of the evidence based upon *geographical, kinship, biological, archaeological, anthropological, linguistic, folkloric, oral tradition, historical, or other relevant information or expert opinion.*

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Sacred objects and objects of cultural patrimony shall be expeditiously returned when:

- The requesting party is the direct lineal descendant of an individual who owned the sacred object.
- The requesting Native American tribe can show that the object was owned or controlled by the tribe or organization.
- The requesting Native American tribe can show that the sacred object was owned or controlled by a member thereof, if there are no identifiable lineal descendants.

In addition, according to NAGPRA Section 7, the return of culturally affiliated Native American cultural items to the lineal descendant or Native American tribe will be done so expeditiously unless the items are indispensable for completion of a specific scientific study, the outcome of which would be of major benefit to the United States. The cultural items shall be returned no later than 90 days after the completion date of the scientific study. Also, YPG shall share what information it does possess regarding the object in question with the known lineal descendant or Indian tribe to assist in making a claim.

Where there are multiple requests for repatriation of any cultural item and, after complying with the requirements of this Act, YPG cannot clearly determine which requesting party is the most appropriate claimant, YPG may retain such item until the requesting parties agree upon its disposition or the dispute is resolved pursuant to this Act's provisions or a court of competent jurisdiction.

Any person who fails to make a timely claim prior to the repatriation or transfer of human remains, funerary objects, sacred objects, or objects of cultural patrimony is deemed to have irrevocably waived any right to claim such items pursuant to the regulations or the Act. A "timely claim" means the filing of a written claim with YPG prior to the time the particular human remains, funerary objects, sacred objects, or objects of cultural patrimony at issue are duly repatriated or disposed of to a claimant by YPG in accordance with 43 CFR Part 10.

Any person who wishes to contest actions taken by YPG, with respect to the repatriation and disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony is encouraged to do so through informal negotiations to achieve a fair resolution of the matter. The Review Committee may aid in this regard by facilitating the informal resolution of disputes relating to 43 CFR Part 10. Any recommendation, finding, report, or other action of the Review Committee is advisory only and not binding on any person.

### **INADVERTENT DISINTERMENT- RECOVERY, RESTORATION, AND REINTERMENT PROCEDURES**

When human remains are not associated with a recent crime and are determined to be culturally affiliated with the Native American tribes, the tribal representative, in consultation with the YPG Cultural Resources Manager, shall make a determination as to whether the burial can be adequately and safely restored and protected in situ or whether, in the alternative, the contents of the burial should be disinterred completely and

reinterred in another location. Each restoration and re-interment, as such, shall provide an opportunity for appropriate tribal religious ceremony or ceremonies.

If it is determined, in consultation with the Indian tribe's duly designated representative, that the disturbed burial can be adequately and safely restored and protected in situ, the YPG Cultural Resources Manager shall, as soon as practicable, ensure the burial to be backfilled, stabilized, and protected from further disturbance by the human activities or natural processes that caused the disturbance in the first instance. If feasible, culturally affiliated Native American tribes will be encouraged to participate.

If, on the other hand, it is determined that the in situ restoration of the burial is not feasible, the Native American tribes shall, as soon as practicable and subsequent to the completion of any study conducted on the contents of the burial at the direction of the Cultural Resources Manager and pursuant to any existing CA or the law and its governing regulation, cause the disinterred human remains and any and all burial goods to be interred on Native American lands within the boundaries of the appropriate Native American reservation or lands, as determined by the Native American tribes.

YPG shall reroute construction, to the extent feasible, to leave human remains in place and unharmed. For the purposes of this SOP, a standard avoidance distance of 200 feet around any burial site will be recognized and complied with by YPG.

Where construction rerouting is not feasible, the Cultural Resources Manager, in consultation with the Native American tribes duly designated representative and the Arizona State Museum, shall remove the remains and associated funerary objects to a safe location for study and preparation for reburial and repatriation, employing standard archaeological field study and recording procedures and techniques. YPG may resume construction in the vicinity as soon as the Cultural Resources Manager certifies that the remains and burial goods have been properly and safely removed.

## **CONSULTATION**

YPG will not provide details of any burial disturbance to any public, private, or government media. Upon invitation, YPG will attend Native American tribal meetings for the purposes of discussing NAGPRA-related issues.

Native American tribes and lineal descendants may oppose the display of human remains and cultural items and the publication of information through photographs, informational brochures, or scientific studies. Such concerns may also extend to documentation associated with the human remains and cultural items, as well as excavation records, site maps, and reports.

The manner in which human remains and cultural items are curated and transported for repatriation purposes is an important issue that may require consultation with Native Americans. Consultation is particularly important in repatriation cases to ensure respect of cultural traditions and sensitivities. It is important to note that some Native American tribes did not practice reburial of human remains, which has caused a dilemma concerning how to repatriate human remains. However, some Native American tribes

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have developed policy and procedures for handling repatriation and reburial. The Garrison Manager should request information on these policies and procedures before the need for consultation arises.

Reburial of human remains and other cultural items is often the form of treatment for repatriated items that is preferred by Native American tribes, and often reburial is preferred to occur at or near the location (i.e., usually the archaeological site) where the remains were originally excavated. This is an issue for the Garrison Manager's decision. Allowing reburial of cultural items repatriated under NAGPRA on the installation would generate a requirement to protect the reburial area from damage in perpetuity. Reburial is not specifically required under NAGPRA; however, it is a means of treatment for repatriated remains that many tribes prefer and the Garrison Manager may be faced with such requests upon repatriation.

Chapter 7.0 of this document discusses a Native American Consultation Plan that was completed for YPG in 2001. The Plan should be consulted for additional Native American consultation guidance.

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## Standard Operating Procedure #9

# MAINTENANCE, REPAIR, ALTERATION, OR DEMOLITION OF NATIONAL REGISTER-ELIGIBLE HISTORIC BUILDINGS AND STRUCTURES

## OVERVIEW

No historic buildings eligible for inclusion in the National Register are presently identified at YPG (JRP 2009). Should such buildings be identified in the future, the following provisions shall be applicable to their management.

## POLICY

Buildings that are eligible for the National Register will be maintained in accordance with the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (36 CFR Part 67), and in consultation with the Arizona SHPO. Buildings determined ineligible for inclusion in the National Register require no consultation under the NHPA and are not addressed by this SOP.

## PROCEDURES

YPG Public Works, Planning and Real Estate records will be flagged in such a manner as to identify that NRHP eligible buildings are protected under the NHPA. All Army, contractor, and supported component activities that may result in any physical modification or alteration of these buildings are subject to review by the Cultural Resources Manager, in consultation with the Arizona SHPO, with the following consideration:

- Maintenance procedures and material replacement must be in accordance with *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (36 CFR Part 67).

When maintenance or renovation actions potentially affecting historic buildings or structures are proposed, the Cultural Resources Manager will consult with the SHPO, except as exempted by any active PA.

Notification of proposed Army contractor or supported component actions (undertaking), will be reviewed by the Cultural Resources Manager and submitted to the SHPO (as appropriate) in advance of the project to afford the SHPO 30 calendar days for review and comment. If the written concurrence of the SHPO is not received by the Cultural Resources Manager within 30 calendar days, YPG is not required to take any further steps in the Section 106 process.

If the SHPO or any other interested party disagrees with the finding, the Cultural Resources Manager will specify reasons for the disagreement and request Council comments. Subsequent actions will follow the process described in SOP #1.

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